Weston Solutions, Inc.
2 Eaton Street, Suite 603
Hampton, VA 23669
757-819-5300 • Fax 757-548-0774
WestonSolutions.com

15 March 2024

Ms. Nicole Walworth
Project Manager
Department of the Army
U.S. Army Corps of Engineers
Baltimore District
2 Hopkins Plaza
CENAB-ENE-M, Room 09-F-08
Baltimore, MD 21201

Subject: Final SWMU 49 Monitored Natural Attenuation Sampling Year Eight Report
Contract No. W912DR-15-D-0022, Delivery Order No. W912DR18F0492
Military Munitions Response Program (MMRP) Munitions Response Services
Radford Army Ammunition Plant, Radford, Virginia

Dear Ms. Walworth:

Attached is an electronic copy (Word and PDF) of the Weston Solutions, Inc. (WESTON®) *Final SWMU 49 Monitored Natural Attenuation Sampling Year Eight Report* for the Environmental and Munitions Response Services – Radford Army Ammunition Plant (RFAAP), in Radford, VA, for review and comment.

We have also provided a copy to RFAAP, the U.S. Army Environmental Command (USAEC), and BAE Systems for their review and comment.

If you have any questions or comments, please do not hesitate to contact me at 757.362.2461.

Very truly yours,
WESTON SOLUTIONS, INC.

Tony Pace
Principal Project Manager

Enclosures

Cc: Mark Gettel, USAEC, w/encl (1 hard copy and CD)
Laura Dickerson, RFAAP, w/encl (electronic)
Melissa Lincoln, BAE Systems, w/encl (CD)

FINAL

SWMU 49 MONITORED NATURAL ATTENUATION SAMPLING YEAR EIGHT REPORT

RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

Contract No. W912DR-15-D-0022
Delivery Order No. W912DR18F0492

Prepared For:

U.S. ARMY CORPS OF ENGINEERS
BALTIMORE DISTRICT
Baltimore, MD

and

RADFORD ARMY AMMUNITION PLANT
Radford, VA

Prepared By:

WESTON SOLUTIONS, INC.
2 Eaton Street, Suite 603
Hampton, VA 23669

MARCH 2024

W.O. 03886.552.500.2430

TABLE OF CONTENTS

Section **Page**

1. INTRODUCTION 1-1
1.1 SITE DESCRIPTION AND BACKGROUND 1-2
2. PHYSICAL CHARACTERISTICS 2-1
2.1 TOPOGRAPHY 2-1
2.2 SURFACE WATER 2-1
2.3 GEOLOGY 2-1
2.3.1 Regional Geology 2-1
2.3.2 Site-Specific Geology 2-1
2.4 HYDROGEOLOGY 2-2
2.4.1 Regional Hydrogeology 2-2
2.4.2 Site-Specific Hydrogeology 2-3
3. PREVIOUS INVESTIGATIONS 3-1
4. FIELD ACTIVITIES 4-1
4.1 TWENTY-SEVENTH GROUNDWATER SAMPLING 4-1
4.1.1 Groundwater Elevation Measurements 4-1
4.1.2 Groundwater Sampling 4-2
4.1.3 Quality Control Samples 4-3
4.2 TWENTY-EIGHTH SEMIANNUAL GROUNDWATER SAMPLING 4-4
4.2.1 Groundwater Elevation Measurements 4-4
4.2.2 Groundwater Sampling 4-4
4.2.3 Quality Control Samples 4-5
5. CHEMICAL ANALYTICAL RESULTS 5-1
5.1 SELECTION OF COMPARISON CRITERIA 5-1
5.2 TWENTY-SEVENTH SEMIANNUAL GROUNDWATER RESULTS 5-1
5.3 TWENTY-EIGHTH SEMIANNUAL GROUNDWATER RESULTS 5-3
5.4 YEAR EIGHT SAMPLE RESULTS 5-5
5.4.1 Carbon Tetrachloride 5-5
5.4.2 Trichloroethene 5-6
5.5 LABORATORY ANALYSIS, DATA VALIDATION, AND REPORTING 5-6
5.5.1 Precision 5-7
5.5.2 Accuracy 5-8
5.5.3 Representativeness 5-9
5.5.4 Comparability 5-9
5.5.5 Completeness 5-9
5.5.6 Sensitivity 5-9
5.5.7 Data Usability Summary 5-10

TABLE OF CONTENTS (CONTINUED)

Section **Page**

6. MNA EVALUATION OF SWMU 49 6-1
6.1 FIRST LINE OF EVIDENCE: OCCURRENCE OF CONTAMINANTS 6-2
6.1.1 Carbon Tetrachloride 6-2
6.1.2 Trichloroethene 6-2
6.1.3 Statistical Trends 6-2
6.2 SECOND LINE OF EVIDENCE: GEOCHEMICAL CONDITIONS 6-3
6.2.1 Dissolved Oxygen 6-3
6.2.2 Oxidation-Reduction Potential 6-4
6.2.3 pH 6-4
6.2.4 Nitrate 6-4
6.2.5 Ferrous Iron 6-5
6.2.6 Sulfate 6-5
6.2.7 Total Organic Carbon 6-5
6.2.8 Specific Conductivity 6-6
7. SUMMARY AND CONCLUSIONS 7-1
8. REFERENCES 8-1

LIST OF TABLES

Title **Page**

Table 1-1 SWMUs 48 and 49 Groundwater Remedial Goals 1-3
Table 3-1 COCs Detected in SWMUs 48 and 49 Groundwater Samples – 1996 RFI 3-3
Table 3-2 COCs Detected in SWMU 49 Groundwater Samples – 1998 RFI 3-3
Table 3-3 COCs Detected in SWMU 49 Groundwater Samples – 2006 Groundwater Data Report 3-4
Table 3-4 COCs Detected in SWMU 49 Study Area Groundwater Samples – 2007 RFI ... 3-4
Table 3-5 VOCs Detected in SWMU 49 Study Area Groundwater Samples – 2013 Supplemental RFI 3-5
Table 3-6 Analytes Detected in Baseline Monitoring 3-6
Table 4-1 SWMU 49 Year Eight Semiannual Monitoring Analytical Suite 4-6
Table 4-2 SWMU 49 Twenty-Seventh Semiannual Groundwater Elevations 4-7
Table 4-3 SWMU 49 Twenty-Seventh Semiannual Water Quality Parameters 4-8
Table 4-4 SWMU 49 Twenty-Eighth Semiannual Groundwater Elevations 4-9
Table 4-5 SWMU 49 Twenty-Eighth Semiannual Water Quality Parameters 4-10
Table 5-1 SWMU 49 Summary of Detected Constituents in Twenty-Seventh Semiannual Groundwater Samples 5-11
Table 5-2 SWMU 49 Detected Analytes in Twenty-Seventh Semiannual Event Groundwater Samples 5-12
Table 5-3 SWMU 49 Summary of Detected Constituents in Twenty-Eighth Semiannual Groundwater Samples 5-15
Table 5-4 SWMU 49 Detected Analytes in Twenty-Eighth Semiannual Groundwater Samples 5-16
Table 5-5 Summary of Samples and Analyses 5-19
Table 5-6 Analytical Methods 5-19
Table 5-7 Typical Data Qualifiers 5-20
Table 5-8 Holding Time Exceedances 5-20
Table 5-9 Field Duplicate Precision Exceedances 5-20
Table 5-10 MS/MSD RPD Exceedances 5-21
Table 5-11 LCS Recovery Exceedances 5-21
Table 5-12 MS/MSD Recovery Exceedances 5-21
Table 5-13 Serial Dilution 5-22
Table 5-14 Calibration Exceedances 5-22
Table 5-15 Blank Flags 5-22
Table 6-1 SWMU 49 CT and TCE Semiannual Concentrations 6-8

LIST OF FIGURES

Title **Page**

Figure 1-1 SWMU 49 Site Location Map 1-4
Figure 2-1 SWMU 49 Cross Section 2-4
Figure 2-2 SWMU 49 Cross-Section A-A' 2-5
Figure 2-3 SWMU 49 Cross-Section B-B' 2-6
Figure 2-4 SWMU 49 January 2015 Potentiometric Surface Map 2-7
Figure 4-1 SWMU 49 Monitoring Well Sample Locations 4-11
Figure 4-2 SWMU 49 January 2023 Groundwater Contour Map 4-12
Figure 4-3 SWMU 49 July 2023 Groundwater Contour Map 4-13
Figure 5-1 SWMU 49 January 2023 Carbon Tetrachloride Isopleths 5-23
Figure 5-2 SWMU 49 January 2023 Trichloroethene Isopleths 5-24
Figure 5-3 SWMU 49 July 2023 Carbon Tetrachloride Isopleths 5-25
Figure 5-4 SWMU 49 July 2023 Trichloroethene Isopleths 5-26
Figure 5-5 SWMU 49 Twenty-Seventh Event CT and TCE Concentrations 5-27
Figure 5-6 SWMU 49 Twenty-Eighth Event CT and TCE Concentrations 5-28
Figure 5-7 SWMU 49 CT Concentration Trends 5-29
Figure 5-8 SWMU 49 TCE Concentration Trends 5-30
Figure 6-1 SWMU 49 Twenty-Seventh Event CT to Chloroform Correlation 6-9
Figure 6-2 SWMU 49 Twenty-Seventh Event TCE to cis-1,2-DCE Correlation 6-10
Figure 6-3 SWMU 49 Twenty-Eighth Event CT to Chloroform Correlation 6-11
Figure 6-4 SWMU 49 Twenty-Eighth Event TCE to cis-1,2-DCE Correlation 6-12
Figure 6-5 CT and Chloroform Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3 6-13
Figure 6-6 TCE and cis-1,2-DCE Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3 6-14
Figure 6-7 48MW2 MNA Indicators Years One, Two, Three, Four, Five, Six, Seven, and Eight 6-15
Figure 6-8 48MW3 MNA Indicators Years One, Two, Three, Four, Five, Six, Seven, and Eight 6-16
Figure 6-9 Water Quality Parameters 48MW2 and 48MW3 Years One, Two, Three, Four, Five, Six, Seven, and Eight 6-17

LIST OF APPENDICES

Appendix A-1 Field Sampling Logs

Appendix A-2 Calibration Forms

Appendix B-1 Laboratory Analytical Reports (Provided on CD)

Appendix B-2 Data Validation Reports (Provided on CD)

Appendix C Mann-Kendall Analysis

ACRONYMS AND ABBREVIATIONS

>	greater than
≥	greater than or equal to
°C	degrees Celsius
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter
1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
amsl	above mean sea level
bgs	below ground surface
BTOC	below top of casing
CB&I	CB&I Federal Services LLC
CCV	continuing calibration verification
CD	compact disk
cis-1,2-DCE	cis-1,2-dichloroethene
CMO	corrective measures objective
CoC	chain-of-custody
COC	contaminant of concern
COD	chemical oxygen demand
CT	carbon tetrachloride
DO	dissolved oxygen
DoD	U.S. Department of Defense
DTW	depth to water
ELAP	Environmental Laboratory Accreditation Program
Esri	Environmental Systems Research Institute
FD	field duplicate
Fe	iron
Fe^{2+}	ferrous iron
ft	feet/foot
GW	groundwater
HHRA	human health risk assessment
IC	initial calibration
ICV	initial calibration verification
ID	identification
IDW	investigation-derived waste
IT	IT Corporation
ITRC	Interstate Technology and Regulatory Council
Lab Q	laboratory data qualifiers
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LOD	limit of detection
LOQ	limit of quantitation
LTM	long-term monitoring

ACRONYMS AND ABBREVIATIONS (CONTINUED)

MCL	maximum contaminant level
MDL	method detection limit
mg/L	milligrams per liter
Mn	manganese
MNA	monitored natural attenuation
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
mV	millivolt
MWP	Master Work Plan
NA	not applicable
ND	not detected/non-detect
No.	Number
NT	not tested
NTU	nephelometric turbidity unit
ORP	oxidation-reduction potential
Parsons	Parsons Engineering Science, Inc.
PDS	post-digestion spike
pH	corrosivity/hydrogen ion concentration
PID	photoionization detector
POC	point of compliance
ppm	parts per million
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFAAP	Radford Army Ammunition Plant
RFI	RCRA Facility Investigation
RG	remedial goal
RL	reporting limit
RPD	relative percent difference
RSL	regional screening level
SU	standard unit
SWMU	Solid Waste Management Unit
TCE	trichloroethene
TCL	target compound list
TOC	total organic carbon
U.S.	United States
URS	URS Corporation
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency

ACRONYMS AND ABBREVIATIONS (CONTINUED)

Val Q	validation data qualifiers
Validata	Validata Chemical Services, Inc.
VDEQ	Virginia Department of Environmental Quality
VI	verification investigation
VOC	volatile organic compound
WESTON®	Weston Solutions, Inc.
YSI	Yellow Springs Instrument

1. INTRODUCTION

Weston Solutions, Inc. (WESTON®) has been contracted by the United States (U.S.) Army Corps of Engineers (USACE), Baltimore District, to perform long-term monitoring (LTM) and monitored natural attenuation (MNA) at Solid Waste Management Unit (SWMU) 49 (RAAP-013), Propellant Burning Ash Disposal Area, at Radford Army Ammunition Plant (RFAAP), Radford, VA. This report provides a description of the groundwater sampling activities completed and an analysis of results from the twenty-seventh and twenty-eighth semiannual rounds conducted in 2023 (January and July). Further, this report provides a summary of the Year Eight sampling, consisting of those two sampling events.

This work was performed under Contract Number (No.) W912DR-15-D-0022, Delivery Order No. W912DR18F0492, in accordance with the *Final Master Work Plan, Quality Assurance Plan, Health and Safety Plan* (RFAAP Final MWP) (URS Corporation [URS], 2003) and with Part II (D)(11-21) Interim Measures of the RFAAP Resource Conservation and Recovery Act (RCRA) Corrective Action Permit (U.S. Environmental Protection Agency [USEPA], 2000). Based on the consistency of the data and the fact that quarterly monitoring had been conducted for a full 6 years, groundwater monitoring starting with Year Seven was reduced to a semiannual basis at the 15 monitoring well locations. The Virginia Department of Environmental Quality (VDEQ) approved this recommendation, which was presented in the Year Five report. In October 2021, VDEQ concurred with RFAAP's Class 1 Modification request for the permit, which recommended removal of references to the sampling frequency specified in the Monitored Natural Attenuation Groundwater Monitoring Plan for SWMU 49 contained in Attachment C of the permit.

Groundwater at the SWMU 49 study area has been investigated from the mid-1990s through 2020 and has been fully characterized and delineated. Based on the contamination assessment and human health risk assessment (HHRA) performed and presented in the Draft *SWMU 48/49 RCRA Facility Investigation Report* (Draft SWMU 48/49 RFI Report) (CB&I Federal Services LLC [CB&I], 2014a), carbon tetrachloride (CT) and trichloroethene (TCE) were identified as the primary contaminants of concern (COCs). Note that SWMU 49 used to be a combined study area with SWMU 48; however, previous investigations and sample data have determined that suspected contaminants reportedly disposed of at SWMU 48 were, in fact, likely disposed at SWMU 49.

Therefore, this report concerns only contamination associated with SWMU 49. CT and TCE were identified as the COCs that are contributing to potential future industrial and residential risk at the study area. Based on the MNA results presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015), MNA processes, including biodegradation, sorption, dilution, dispersion, and chemical stabilization, are occurring in groundwater at the SWMU 49 study area.

The Year Eight MNA sampling program was developed and conducted in accordance with the USEPA- and VDEQ-approved Draft SWMU 48/49 RFI Report (CB&I, 2014a) and the Draft Final SWMU 49 MNA Groundwater Monitoring Work Plan (CB&I, 2014b). The corrective measures objectives (CMOs) and remedial goals (RGs) were developed and presented in the Draft SWMU 48/49 RFI Report (CB&I, 2014a). The site-specific CMO for SWMU 49 is to reduce COC (i.e., CT and TCE) concentrations to below the RGs/maximum contaminant levels (MCLs) to avoid adversely impacting future beneficial use of groundwater and, to the extent practicable, to achieve the goal of restoring site groundwater to the most beneficial use.

The objectives of the MNA program are as follows:

- To measure and track the reduction of CT and TCE to levels below the RGs as defined in **Table 1-1**.
- To monitor and evaluate the daughter products of the COCs to determine the progress (effectiveness and timeliness) of the degradation process.

1.1 SITE DESCRIPTION AND BACKGROUND

SWMU 49 is located in the southeastern portion of the RFAAP Horseshoe Area, east of the main bridge over the New River. As shown in **Figure 1-1**, the study area is situated on a bluff approximately 120 feet (ft) above and overlooking SWMU 13 and the New River. The SWMU 49 study area is approximately 75 ft long by 83 ft wide and is situated adjacent to SWMUs 48, 50, and 59. Previously, SWMU 49 was combined with these three adjacent areas.

As presented in previous reports (CB&I, 2014a and 2014b), SWMU 49 reportedly received 10 tons of red water ash during its active period. However, the results of environmental sampling to date indicate that the red water ash was likely disposed of in the disposal trenches associated with neighboring SWMU 48. Conversely, sampling indicates that the only wastewater associated with SWMU 48 was disposed of in the SWMU 49 area.

Table 1-1 SWMUs 48 and 49 Groundwater Remedial Goals

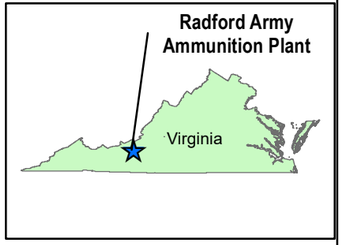
Chemical of Interest	Groundwater RG (µg/L)	Groundwater RG Source*[1]
Carbon Tetrachloride	5.0	MCL
Trichloroethene	5.0	MCL

Notes:
* RGs are also the MCLs listed in the USEPA *2018 Edition of the Drinking Water Standards and Health Advisories Tables* (USEPA, 2018).

[1] RGs developed and presented in Draft SWMU 48/49 RFI Report (CB&I, 2014a).
µg/L = micrograms per liter
MCL = maximum contaminant level
RFI = RCRA Facility Investigation
SWMU = Solid Waste Management Unit
RCRA = Resource Conservation and Recovery Act
RG = remedial goal
USEPA = U.S. Environmental Protection Agency

Legend

- SWMU 49 Boundary
- Other SWMU Boundary



Aerial Source:
ESRI Imagery Mapping Service, 2019

N

0 150 300 600 Feet

Prepared By:

Baltimore District

FIGURE 1-1
SWMU 49 SITE LOCATION MAP
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU_48_49_Site_Location_Map.mxd, 10/21/2020 1:17:24 PM, johna

2. PHYSICAL CHARACTERISTICS

2.1 TOPOGRAPHY

The land surface at SWMU 49 slopes gently from 1,830 ft above mean sea level (amsl) on the north side of the site to approximately 1,816 ft amsl on the southeast side of the site. The southeast side ends abruptly at a bluff that rises approximately 120 ft above the Burning Grounds (SWMU 13) and the New River. In general, the topography is uneven and hummocky with several small draws and topographic highs.

2.2 SURFACE WATER

SWMU 49 is located on a bluff approximately 120 ft above the New River. Based on topography, surface water runoff is expected to flow approximately 700 ft south to the New River.

2.3 GEOLOGY

2.3.1 Regional Geology

SWMU 49 is located in the New River Valley, which crosses the Valley and Ridge Province approximately perpendicular to the regional strike of bedrock, and cross cuts Cambrian and Ordovician limestone or dolostone. Deep clay-rich residuum is prevalent in areas underlain by carbonate rocks. The valley is covered by river floodplain and terrace deposits; karst topography is dominant throughout the area. A more detailed description of the regional geology is presented in the RFAAP Final MWP (URS, 2003).

2.3.2 Site-Specific Geology

The lithology of the SWMU 49 subsurface was characterized during the advancement of soil borings and monitoring well borings at the site. One soil boring (48SB05) was advanced within SWMU 49 to 37 ft in depth. In addition to soil boring 48SB05, two monitoring wells were installed directly north and south of the target study area: 48MW1 and 48MW2, respectively. Plan views of lines A-A' and B-B' that run through the adjacent sites of SWMU 48, SWMU 50, and SWMU 59 are presented in **Figure 2-1**, with geologic cross sections of A-A' and B-B' presented in **Figures 2-2** and **2-3**, respectively. Based on the borings, the subsurface geology consists of alluvium and residual deposits comprising clay and silt with some sand and gravel overlying

bedrock. Monitoring well 48MW1 was advanced to 154 ft below ground surface (bgs), with the bedrock elevation encountered at 72 ft bgs. Monitoring well 48MW2 was advanced to 133.7 ft bgs, with the bedrock elevation encountered at approximately 41 ft bgs. Depths to bedrock were directly measured at the monitoring well borings. Bedrock elevations ranged from approximately 1,745 to 1,776 ft amsl, with the bedrock surface sloping to the north.

Depth to competent bedrock at the site ranges from approximately 41 to 72 ft bgs. A saprolitic layer, formed from in situ weathering of the carbonate bedrock, immediately overlies the competent bedrock. The saprolite is up to 10 ft in thickness.

Bedrock consists of highly fractured interbedded siltstone, limestone, and dolostone of the Elbrook Formation. The Max Meadows Breccia is evident in outcrops along the slope leading to the river. In the outcrop along the slope, the tectonic breccias and the limestone and dolostone are highly weathered with many solution cavities. The unconsolidated sediment immediately overlying the saprolite consists of alluvial deposits.

Alluvial deposits, consisting primarily of silty sand, overlie channel deposits of fine- to coarse-grained sand and gravel (river jack). These Paleo-channel deposits rest directly on the saprolite. Portions of the disposal areas contain fill material to depths of 9 to 10 ft bgs. A more detailed discussion of the geology and soil at RFAAP is presented in Sections 3.4 through 3.7 of the RFAAP Final MWP (URS, 2003) and in the *Facility-Wide Background Study* (IT Corporation [IT], 2001).

2.4 HYDROGEOLOGY

2.4.1 Regional Hydrogeology

Geologically, the Appalachian Plateaus and Valley and Ridge Province encompass two major tectonic domains: the southern Appalachian Basin and the southeastern part of the Eastern Interior Basin. The hydrogeologic framework is based on generalized stratigraphic succession, with indurated sedimentary rocks of the Paleozoic age forming predominant units.

Groundwater flow paths are typically short, commonly extending no more than several miles in their longest dimension. The largest groundwater supplies are produced from the carbonate rocks, especially where they are associated with thick regolith, an important storage reservoir throughout

the entire area. The regolith serves as a store of recharge that would otherwise be rapidly diverted to overland flow. It also slowly releases water to underlying carbonate aquifers. Because of the widespread distribution of carbonate rocks and associated regolith, abundant precipitation in a humid climate, and relatively steep hydraulic gradients, this region (and locality) is one of the major karstlands in the eastern United States.

Groundwater supplies in the Valley and Ridge Province are generally good quality compared to surface water supplies (Parsons Engineering Science, Inc. [Parsons], 1996). Because of extended contact with minerals, however, many groundwater supplies contain higher levels of dissolved solids than the streams into which they discharge. Because of sinkholes and underground caverns in karst aquifers, there is a high potential for groundwater to be impacted by direct infiltration of contaminated surface water.

2.4.2 Site-Specific Hydrogeology

Monitoring wells installed at SWMU 49 were screened in both the surficial unconsolidated deposits and the underlying bedrock. Boring logs and well construction diagrams for the SWMU 49 study area wells are presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015). Water levels were measured in the wells to determine the groundwater flow direction at the site. A groundwater contour map prepared from the baseline MNA monitoring completed in January 2015 is provided in **Figure 2-4**. A steep bluff separates SWMU 49 and SWMU 13; therefore, no monitoring wells are positioned between these sites. Contour lines shown in the figure represent lines of equal elevation of the water table; consequently, groundwater flow direction is always perpendicular to the contour lines and feeds into the New River, which generally runs a south-to-north course, but west-to-east at this location. Groundwater at the site tends to flow south toward SWMU 13 and appears to discharge to the New River, south of the study area. Groundwater elevations at SWMU 49 vary minimally from each of the four sampling quarters, suggesting little seasonal impact on groundwater elevations. Based on the Year Eight groundwater elevations recorded, the flow direction did not change appreciably from semiannual event to semiannual event (see discussion in Sections 4.1.1 and 4.2.1).

Legend

- Well
- Cross Section
- SWMU 49 Boundary

Aerial Source:
Near Map Imagery, February 2020

N

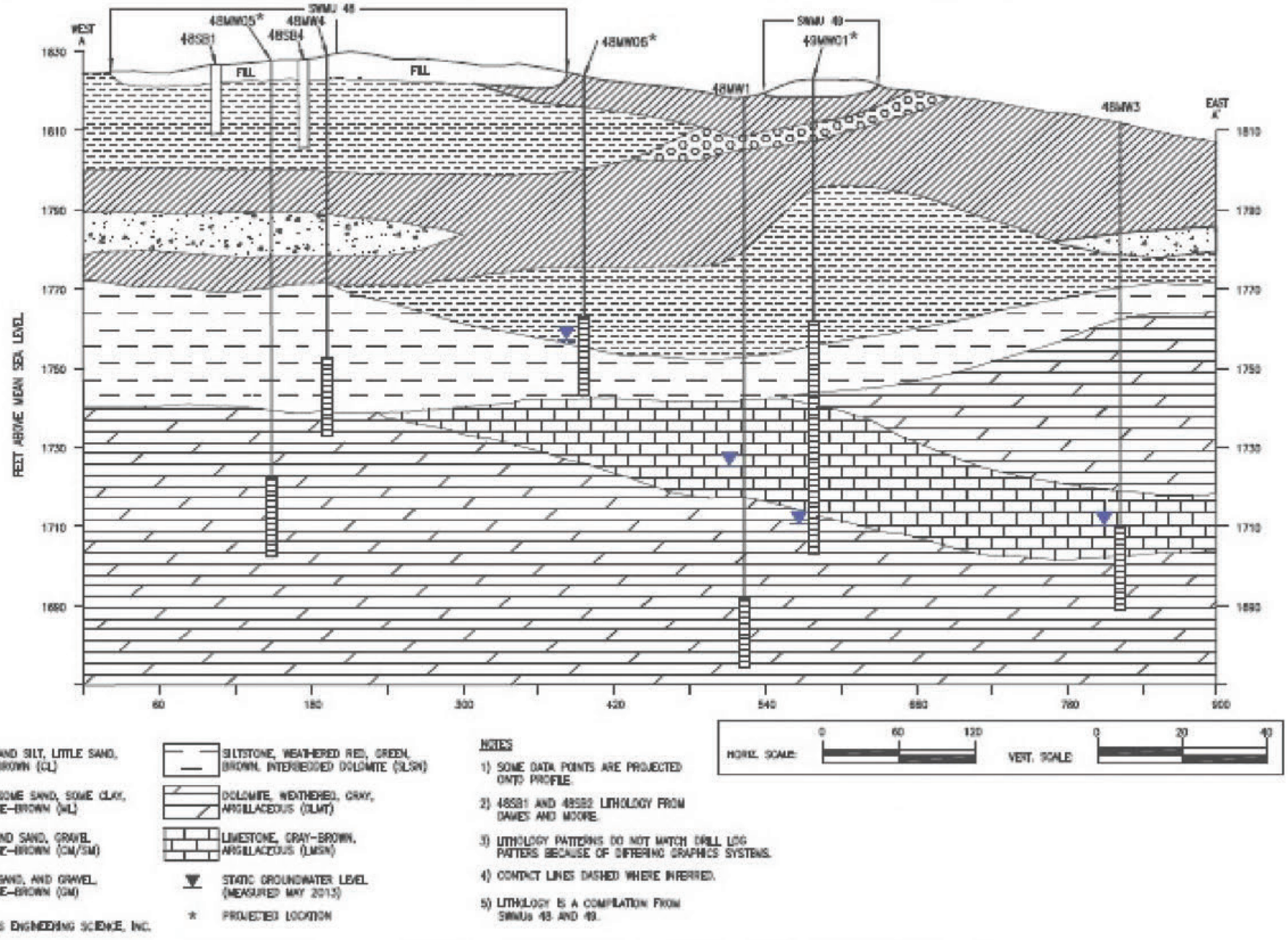
0 55 110 220 Feet

Prepared By:

Baltimore District

FIGURE 2-1
SWMU 49
CROSS SECTION
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Topography_Cross_Section.mxd, 2/2/2021 5:37:17 PM, johna



Legend

Aerial Source:
Near Map Imagery, February 2020

N

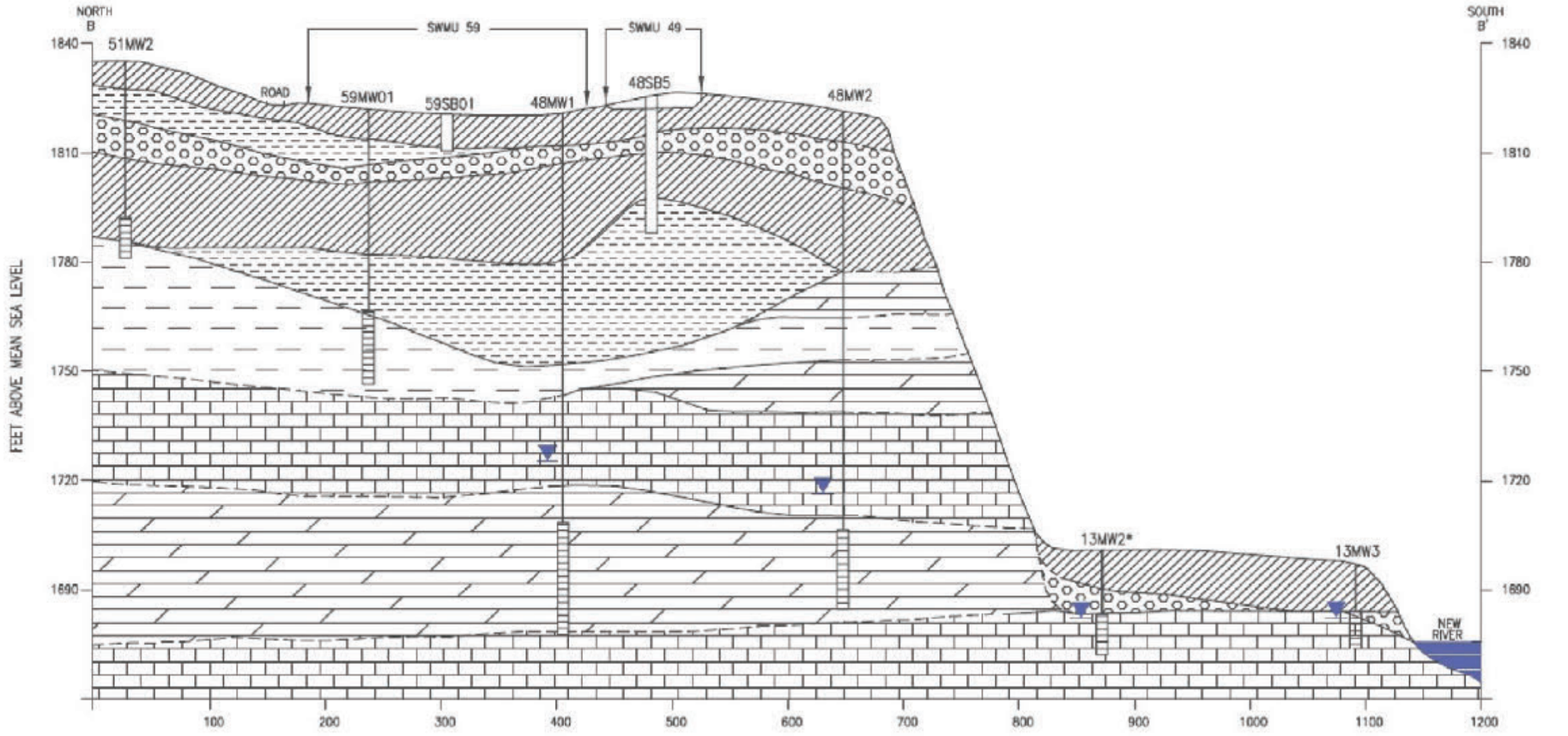
Prepared By:

Baltimore District

FIGURE 2-2
SWMU 49
CROSS SECTION A-A'
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Cross_Section_A_A_Template.mxd, 10/29/2020 9:50:34 AM, johna

20P-0251



HORIZ. SCALE: 0 100 200 VERT. SCALE: 0 30 60

LEGEND

- CLAY AND SILT, LITTLE SAND, RED–BROWN (CL)
- SILT, SOME SAND, SOME CLAY, ORANGE–BROWN (ML)
- SILT AND SAND, GRAVEL ORANGE–BROWN (CM/SM)
- SILT, SAND, AND GRAVEL, ORANGE–BROWN (GM)
- SILTSTONE, WEATHERED RED, GREEN, BROWN, INTERBEDDED DOLOMITE (SLSN)
- DOLOMITE, WEATHERED, GRAY, ARGILLACEOUS (DLMT)
- LIMESTONE, GRAY–BROWN, ARGILLACEOUS (LMSN)
- STATIC GROUNDWATER LEVEL (MEASURED MAY 2013)

NOTES

1) SOME DATA POINTS ARE PROJECTED ONTO PROFILE.
2) 51MW2 AND 13MW2 LITHOLOGY FROM DAMES AND MOORE.
3) LITHOLOGY PATTERNS DO NOT MATCH DRILL LOG PATTERNS BECAUSE OF DIFFERING GRAPHICS SYSTEMS.
4) CONTACT LINES DASHED WHERE INFERRED.
5) ADDITIONAL WELLS SHOWN TO AID IN CROSS–SECTION ACCURACY.

SOURCE: PARSONS ENGINEERING SCIENCE, INC.

Legend

Aerial Source:
Near Map Imagery, February 2020

N

Prepared By:
Baltimore District

FIGURE 2-3
SWMU 49
CROSS SECTION B-B
RADFORD, VIRGINIA

WESTON SOLUTIONS

BSEn
BERING SEA ENVIRONMENTAL LLC

51MW1
51MW2
48MW7
1780
48MW4
1770
1760
59MW1
48MW5
1750
48MW6
1720
1730
48MW1
49MW3
1740
49MW1
SWMU 49
1710
50MW1
48MW3
49MW2
48MW2
1700
50MW2
1690
49MW5
49MW4
13MW2
13MW5
1680
13MW4
13MW3
NEW RIVER

Legend

- Well
- Groundwater Contour
- SWMU 49 Boundary
- Groundwater Flow Direction

Aerial Source:
Near Map Imagery, February 2020

N

0 55 110 220
Feet

Prepared By:

Baltimore District

FIGURE 2-4
SWMU 49 JANUARY 2015
POTENTIOMETRIC SURFACE MAP
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Potentiometric_Surface_Map_Jan2015.mxd, 11/22/2020 3:47:42 PM, johna

3. PREVIOUS INVESTIGATIONS

Seven prior investigations have been conducted at the previously combined study area including SWMUs 48 and 49. In 1987, a RCRA Facility Assessment was conducted to evaluate potentially hazardous waste or hazardous constituent releases and to implement corrective actions, as necessary (U.S. Army Toxic and Hazardous Materials Agency, 1987). In 1992, Dames and Moore performed a verification investigation (VI), which included surface and subsurface soil sampling and a soil gas survey to characterize the nature and extent of contamination (Dames and Moore, 1992). In 1996, Parsons conducted a RCRA Facility Investigation (RFI) to further delineate the extent of contamination identified during the 1992 VI sampling (Parsons, 1996). ICF Kaiser Engineers also performed an RFI in 1999 to further refine the understanding of the nature and extent of contamination identified during the previous investigations (ICF Kaiser, 1999). Additional RFI sampling was conducted by IT/Shaw Environmental, Inc. in 2002, 2006, 2007, and 2013 to collect sufficient data to complete HHRAs and ecological risk assessments (CB&I, 2014a).

In 2014, USEPA and VDEQ approved the Draft SWMU 48/49 RFI Report (CB&I, 2014a), which developed the CMOs and RGs for the MNA program. Direct-push soil borings and the installation and sampling of new and existing monitoring wells were used to characterize the nature and extent of constituents in soil and groundwater at the SWMU 48/49 combined study area, to identify the lateral and vertical extent of impacted soil and chlorinated solvents in groundwater, and to characterize soil lithology and depth to groundwater and bedrock. Details of these investigations are described in Section 3.0 (Field Investigation Program) of the approved Draft SWMU 48/49 RFI Report (CB&I, 2014a). Historical data presenting the SWMU 49 volatile organic compound (VOC) concentrations for CT and TCE in the study area wells can be found in **Tables 3-1** through **3-5**.

WESTON has performed the LTM and MNA at SWMU 49 since October 2019 through the present, including the seventeenth through twentieth quarterly sampling rounds for Year Five of sampling at RFAAP, twenty-first through twenty-fourth quarterly sampling rounds for Year Six of sampling at RFAAP, twenty-fifth and twenty-sixth semiannual sampling rounds for Year Seven of sampling at RFAAP, and twenty-seventh and twenty-eighth semiannual sampling rounds for Year Eight of sampling at RFAAP. The nature and extent assessment identified several VOCs and

metals in groundwater as elevated and contributing to potential future risks. Two of the VOCs associated with potential future industrial and residential risk in the HHRA (CT and TCE) were present above USEPA's MCLs (USEPA, 2018) during the multiple groundwater sampling events at the study area. A comparison of concentrations from the mid-1990s to 2019 indicates that the majority of the VOCs are no longer present in these sampled areas and have broken down through natural processes. Analysis of the groundwater data during this roughly 20-year period shows that concentrations of the CT and TCE plume have changed as follows: (1) decreased overall, (2) decreased to 1 microgram per liter (µg/L) surrounding the center of the plume, and (3) decreased at least by one-half in the center of the plume. The presence of daughter products (i.e., chloroform and cis-1,2-dichloroethene [cis-1,2-DCE]) in groundwater at the study area indicates that limited biological degradation of the chlorinated solvents is occurring.

The HHRA determined that CT and TCE are the primary COCs in groundwater that are contributing potential future industrial and residential risk at the SWMU 49 study area. Because the RFI demonstrated that groundwater contamination is present at concentrations associated with unacceptable human health concerns, CMOs and RGs were developed to address the concerns.

The site-specific CMOs for SWMU 49 are: to reduce COC concentrations to below RGs/MCLs to avoid adversely impacting future beneficial use of groundwater, and, to the extent practicable, to achieve a goal of restoring site groundwater to the most beneficial use. The SWMU 49 groundwater COCs have been identified as CT and TCE. The groundwater RGs (presented in **Table 1-1** of this report) will be used to compare results from groundwater monitoring wells to assess the progress of the MNA.

Table 3-6 provides the analytical results presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015). In the initial 2012 sampling, the highest concentrations of CT and TCE were observed in monitoring wells 48MW2 and 48MW3. The plumes are small, appear to be isolated, and have not changed in dimension since 2013. Recommendations provided in the SWMU 49 MNA Sampling Baseline Report called for further monitoring of CT, TCE, and daughter products of these VOCs within the SWMU. The rationale of continued monitoring is to evaluate the effectiveness of the MNA processes.

Table 3-1 COCs Detected in SWMUs 48 and 49 Groundwater Samples – 1996 RFI

Analyte	Sample ID Sample Date	48MW1 1/20/95		48MW1 7/20/95		48MW2 1/19/95		48MW2 7/19/95		48MW3 1/20/95		48MW3 7/21/95		48MW4 7/27/95	
	RG	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q
VOCs (µg/L)															
Carbon Tetrachloride	5	NT		1	U	NT		92		NT		100		1	U
Trichloroethene	5	NT		17		NT		11		NT		37		1	U

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
NT = analyte not tested
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
U = Analyte not detected at the method reporting limit.

Table 3-2 COCs Detected in SWMU 49 Groundwater Samples – 1998 RFI

Analyte	Sample ID Sample Date	48MW1-2 4/8/98					48MW2-2 4/2/98					48MW3-2 4/2/98					48MW4-2 4/8/98				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																					
Carbon Tetrachloride	5	5	U	U	5	5	140			5	5	180			5	5	5	U	U	5	5
Trichloroethene	5	8 J			5	5	18 J			5	5	33 J			5	5	5	U	U	5	5

Notes:

Bold outline indicates an RG exceedance.
Shading in the MDL/MRL columns indicates the MDL/MRL is equal to or exceeds a criterion.
-2 = Sample code signifies the second round of sampling conducted at these four wells. Original samples were collected during the 1999 RFI performed by ICF Kaiser.
µg/L = micrograms per liter (parts per billion)
ID = identification
MDL = method detection limit
MRL = method reporting limit
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
J = Value less than MRL and greater than MDL and is considered estimated.
U = Analyte not detected at the method reporting limit.

Val Q = validation data qualifiers
J = Estimated concentration.
U = Analyte not detected.

Table 3-3 COCs Detected in SWMU 49 Groundwater Samples – 2006 Groundwater Data Report

Analyte	Sample ID Sample Date	48MW1 4/13/06					48MW2 4/13/06					48MW3 4/13/06					48MW4 4/11/06				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																					
Carbon Tetrachloride	5	1	U		0.5	1	29.2			0.5	1	51.2			0.5	1	1	U		0.5	1
Trichloroethene	5	5.5			0.5	1	3			0.5	1	7.4			0.5	1	1	U		0.5	1

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
Lab Q = laboratory data qualifiers
MDL = method detection limit
MRL = method reporting limit
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
U = Analyte not detected at the method reporting limit.
Val Q = validation data qualifiers
VOC = volatile organic compound

Table 3-4 COCs Detected in SWMU 49 Study Area Groundwater Samples – 2007 RFI

Analyte	Sample ID Sample Date	48MW1 8/29/07					48MW2 8/29/07					48MW3 8/29/07					48MW4 8/29/07					48MW05 8/30/07					48MW06 8/30/07				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																														
Carbon Tetrachloride	5	1	U		0.29	1	94.6			0.29	1	60.3			0.29	1	1	U		0.29	1	1	U		0.29	1	1	U		0.29	1
Trichloroethene	5	1.6			0.38	1	11.2			0.38	1	10.1			0.38	1	1	U		0.38	1	1	U		0.38	1	3.7			0.38	1

Analyte	Sample ID Sample Date	48MW07 8/30/07					49MW01 8/29/07					50MW01 8/30/07					50MW02 8/30/07					59MW01 8/29/07				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																										
Carbon Tetrachloride	5	1	U		0.29	1	3.8			0.29	1	1	U		0.29	1	2.7			0.29	1	1	U		0.29	1
Trichloroethene	5	1	U		0.38	1	1	U		0.38	1	1	U		0.38	1	3.4			0.38	1	1	U		0.38	1

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
Lab Q = laboratory data qualifiers
MDL = method detection limit
MRL = method reporting limit
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
U = Analyte not detected at the method reporting limit.
Val Q = validation data qualifiers
VOC = volatile organic compound

Table 3-5 VOCs Detected in SWMU 49 Study Area Groundwater Samples – 2013 Supplemental RFI

Analyte	Sample ID Sample Date	13MW2 5/6/13					13MW3 5/6/13					13MW4 5/6/13					13MW5 5/6/13					48MW1 5/8/13					48MW2 5/9/13					48MW3 5/9/13				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.432	J	J	0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2
1,1-Dichloroethane	NA	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	1.03			0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2
1,1-Dichloroethene	NA	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5
Acetone	NA	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1
Carbon Tetrachloride	5	0.5	U		0.248	0.5	5.63			0.248	0.5	0.5	U		0.248	0.5	0.5	U		0.248	0.5	0.5	U		0.248	0.5	82.7			0.248	0.5	73.1			0.248	0.5
Chloroform	NA	0.2	U		0.155	0.2	0.453	J	J	0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2	5.97			0.155	0.2	7.89			0.155	0.2
cis-1,2-Dichloroethene	NA	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.817	J	J	0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2
Methylene Chloride	NA	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5
Tetrachloroethene	NA	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5
Toluene	NA	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	2.1			0.122	0.2	1.18			0.122	0.2	0.291	J	J	0.122	0.2
Trichloroethene	5	0.2	U		0.161	0.2	1.08			0.161	0.2	1.08			0.161	0.2	0.2	U		0.161	0.2	1.9			0.161	0.2	9.75			0.161	0.2	10.7			0.161	0.2

Analyte	Sample ID Sample Date	48MW06 5/7/13					49MW01 5/8/13					49MW02 5/9/13					49MW03 5/7/13					49MW04 5/6/13					49MW05 5/6/13					50MW02 5/8/13				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	1.66			0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U	UL	0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.251	J	J	0.123	0.2
1,1-Dichloroethane	NA	5.86			0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U	UL	0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.344	J	J	0.171	0.2
1,1-Dichloroethene	NA	0.301	J	J	0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U	UL	0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5
Acetone	NA	1	U		0.193	1	1	U		0.193	1	2.41	J	B	0.193	1	1	U	UL	0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1
Carbon Tetrachloride	5	0.5	U		0.248	0.5	4.61			0.248	0.5	5.36			0.248	0.5	0.5	U	UL	0.248	0.5	0.664	J	J	0.248	0.5	0.5	U		0.248	0.5	0.919	J	J	0.248	0.5
Chloroform	NA	0.2	U		0.155	0.2	0.193	J	J	0.155	0.2	7.79			0.155	0.2	0.2	U	UL	0.155	0.2	1.25			0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2
cis-1,2-Dichloroethene	NA	9.21			0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U	UL	0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.373	J	J	0.103	0.2
Methylene Chloride	NA	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	2.3	J	L	0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5
Tetrachloroethene	NA	0.801	J	J	0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U	UL	0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.255	J	J	0.193	0.5
Toluene	NA	0.2	U		0.122	0.2	0.765	J	J	0.122	0.2	1.52			0.122	0.2	0.2	U	UL	0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.726	J	J	0.122	0.2
Trichloroethene	5	6.25			0.161	0.2	0.2	U		0.161	0.2	0.934	J	J	0.161	0.2	0.2	U	UL	0.161	0.2	0.2	U		0.161	0.2	0.2	U		0.161	0.2	2.31			0.161	0.2

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
MDL = method detection limit
MRL = method reporting limit
NA = not applicable
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
J = Value less than MRL and greater than MDL and is considered estimated.
U = Analyte not detected at the method reporting limit.

Val Q = validation data qualifiers
B = Blank contamination. Value detected in sample and associated blank.
J = Estimated concentration.
L = Estimated concentration bias low.
UL = Estimated concentration non-detect bias low.

Table 3-6 Analytes Detected in Baseline Monitoring

Analyte	Sample ID / Sample Date	13MW2 1/26/15					13MW3 1/26/15					13MW4 1/26/15					13MW5 1/26/15					48MW1 1/28/15					48MW2 1/28/15					48MW3 1/27/15					48MW06 1/29/15				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																								
1,1,1-Trichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.454	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.691	DJ	J	0.5	1
1,1-Dichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.908	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	4.28	D		0.5	1
Acetone	NA	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	XU		2.5	5	27.8	D	B	5	10
Bromoform	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	XU		0.5	1
Bromomethane	NA	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	NU		0.5	1	2	U		1	2
Carbon Tetrachloride	5	0.5	U		0.25	0.5	4.62			0.25	0.5	0.592	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	XU		0.25	0.5	118	X	J	0.25	0.5	77.4			0.25	0.5	1	XU		0.5	1
Chloroform	NA	0.5	U		0.25	0.5	0.47	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	7.46			0.25	0.5	8.37			0.25	0.5	1	U		0.5	1
cis-1,2-Dichloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.914	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	4.86	D		0.5	1
Dibromochloromethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	XU		0.25	0.5	1	U		0.5	1
Ethylbenzene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.469	J	J	0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1
m- & p-Xylene	NA	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	0.535	J	J	0.5	1	1.32	J	J	0.5	1	0.736	J	J	0.5	1	2	U		1	2
o-Xylene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.285	J	J	0.25	0.5	0.919	J	J	0.25	0.5	0.495	J	J	0.25	0.5	1	U		0.5	1
Tetrachloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.709	DJ	J	0.5	1
Trichloroethene	5	0.5	U		0.25	0.5	0.883	J	J	0.25	0.5	0.5	U		0.25	0.5	1.42			0.25	0.5	1.91			0.25	0.5	10.5			0.25	0.5	12.4			0.25	0.5	3.29	D		0.5	1
Miscellaneous (µg/L)																																								
Total Organic Carbon	NA	2500	U		1250	2500	2500	U		1250	2500	2500	U		1250	2500	NT					2500	U		1250	2500	2500	U		1250	2500	2500	U		1250	2500	1640	J	J	1250	2500
Chloride	NA	2750			170	330	3880			170	330	11500			170	330	NT					3100			170	330	2650			170	330	2220			170	330	9360	D		340	660
Nitrate (as N)	NA	71.5	J	J	33	100	1660			33	100	100	U		33	100	NT					1350			33	100	754			33	100	6400			33	100	5880			33	100
Sulfate	NA	45900			330	1000	126000			330	1000	23800			330	1000	NT					58000			330	1000	16800			330	1000	29800			330	1000	275000	D		660	2000
Methane	NA	2	U		1	2	2	U		1	2	2	U		1	2	NT					2	U		1	2	2	U		1	2	2	U		1	2	2	U		1	2
Ethene	NA	2	U		1	2	2	U		1	2	2	U		1	2	NT					2	U		1	2	2	U		1	2	2	U		1	2	2	U		1	2

Table 3-6 Analytes Detected in Baseline Monitoring (Continued)

Analyte	Sample ID Sample Date	48MW07 1/29/15					49MW01 1/28/15					49MW02 1/27/15					49MW03 1/28/15					49MW04 1/26/15					49MW05 1/26/15					50MW02 1/27/15				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	0.5	U		0.25	0.5	0.262	J	J	0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
1,1-Dichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.313	J	J	0.25	0.5
Acetone	NA	5	U		2.5	5	5	U		2.5	5	14	XDJ	B	5	10	5	U		2.5	5	5	U		2.5	5	18.6	DJ	B	5	10	5	XU		2.5	5
Bromoform	NA	0.5	XU		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
Bromomethane	NA	1	U		0.5	1	1	U		0.5	1	2	U		1	2	1	U		0.5	1	1	U		0.5	1	2	U		1	2	1	U		0.5	1
Carbon Tetrachloride	5	0.5	XU		0.25	0.5	4.97	X	J	0.25	0.5	5.05	D		0.5	1	0.5	XU		0.25	0.5	0.662	J	J	0.25	0.5	1	U		0.5	1	1.62			0.25	0.5
Chloroform	NA	0.5	U		0.25	0.5	0.404	J	J	0.25	0.5	1.55	DJ	J	0.5	1	0.5	U		0.25	0.5	1.46			0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
cis-1,2-Dichloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.384	J	J	0.25	0.5
Dibromochloromethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	XU		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	XU		0.25	0.5
Ethylbenzene	NA	0.5	U		0.25	0.5	0.262	J	J	0.25	0.5	1.13	DJ	J	0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
m- & p-Xylene	NA	1	U		0.5	1	0.69	J	J	0.5	1	4.06	D		1	2	1	U		0.5	1	1	U		0.5	1	2	U		1	2	0.804	J	J	0.5	1
o-Xylene	NA	0.5	U		0.25	0.5	0.544	J	J	0.25	0.5	2.91	D		0.5	1	0.296	J	J	0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.542	J	J	0.25	0.5
Tetrachloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.311	J	J	0.25	0.5
Trichloroethene	5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	.0501	DJ	J	0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	2.08			0.25	0.5
Miscellaneous (µg/L)																																			
Total Organic Carbon	NA	NT					2500	U		1250	2500	2500	U		1250	2500	NT					2500	U		1250	2500	NT					2500	U		1250	2500
Chloride	NA	NT					6030			170	330	3450			170	330	NT					5160			170	330	NT					7270			170	330
Nitrate (as N)	NA	NT					303			33	100	47.6	J	J	33	100	NT					249	J	J	33	100	NT					2060			33	100
Sulfate	NA	NT					1000	U		330	1000	26600			330	1000	NT					53600			330	1000	NT					73200			330	1000
Methane	NA	NT					2	U		1	2	1.54	J	J	1	2	NT					2	U		1	2	NT					2	U		1	2
Ethene	NA	NT					2	U		1	2	1.4	J	J	1	2	NT					2	U		1	2	NT					2	U		1	2

Notes:

Bold outline indicates an RG exceedance.
µg/L = micrograms per liter (parts per billion)
CCV = continuing calibration verification
ICV = initial calibration verification
ID = identification
MDL = method detection limit
MRL = method reporting limit
NA = not applicable
NT = Analyte not tested
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
D = Sample was run at a dilution.
J = Value less than MRL and greater than MDL and is considered estimated.
N = Matrix spike/matrix spike duplicate accuracy and/or precision were outside criteria.
U = Analyte not detected at the method reporting limit.
X = The associated ICV/CCV exceeded the upper control limit.

Val Q = validation data qualifiers
B = Blank contamination. Value detected in sample and associated blank.
J = Estimated concentration.

4. FIELD ACTIVITIES

This section provides a discussion of field activities conducted by WESTON in the Year Eight MNA semiannual monitoring at SWMU 49.

The Year Eight groundwater monitoring consisted of two sampling events conducted in January 2023 (twenty-seventh event) and July 2023 (twenty-eighth event). Fifteen monitoring wells were included in the monitoring well network, 11 of which were sampled on a semiannual basis and 4 on an annual basis in 2023. The Year Eight MNA groundwater monitoring consisted of a synoptic water level measurement and sampling of the 15 point of compliance (POC) monitoring wells for target compound list (TCL) VOCs and dissolved gases (methane, ethane, ethene). In addition, the following indicator parameters were collected: total organic carbon (TOC), dissolved ferrous iron (Fe^{2+}), and the anions chloride, nitrate, and sulfate. Water quality parameters collected during low-flow sampling included corrosivity/hydrogen ion concentration (pH), temperature, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity utilizing a daily calibrated Yellow Springs Instrument (YSI) water quality meter. The list of monitoring wells and sample frequency is provided in **Table 4-1**. Groundwater samples were submitted to a U.S. Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) accredited laboratory (CT Laboratories, LLC). Field activities were conducted in accordance with the Draft Final SWMU 49 MNA Groundwater Monitoring Work Plan (CB&I, 2014b). Copies of the groundwater sample forms and meter calibration records are presented in **Appendices A-1** and **A-2**, respectively.

4.1 TWENTY-SEVENTH GROUNDWATER SAMPLING

Groundwater elevation measurements and samples were collected from 15 POC monitoring wells. The twenty-seventh event of groundwater sampling was conducted January 23-27, 2023. Groundwater elevation measurements were collected prior to sampling activities. The locations of monitoring wells sampled during this semiannual event are provided in **Figure 4-1**.

4.1.1 Groundwater Elevation Measurements

Water level elevations were collected during each Year Eight event from the 15 monitoring wells at SWMU 49 prior to the collection of groundwater samples. **Table 4-2** provides the measured

depth-to-water (DTW) levels (from the top of the casing) and groundwater elevations amsl collected on January 24-26, 2023. **Figure 4-2** presents a groundwater elevation contour map developed from the elevation data collected during this semiannual monitoring event. Groundwater contours were derived using the Environmental Systems Research Institute (Esri) ArcGIS Desktop Spatial Analyst 10.7.1 software and creating a spline interpolated continuous surface based on limited groundwater data collected in the field. The surface model was executed using default values in most cases and was forced to cover an area inclusive of all wells using the extent polygon to define the area of interest. Contour lines were then constructed from the output splined surface at 10-ft and 2-ft intervals, depending on the site, with zero base contour. The results of the automated processing were then reviewed by subject knowledge experts and manually adjusted to accurately represent ground conditions.

4.1.2 Groundwater Sampling

Groundwater samples were collected from all 15 POC monitoring wells from January 23-27, 2023, and analyzed for the analytical suites covering TCL VOCs and the dissolved gases (methane, ethane, and ethene). In addition, the following indicator parameters were collected: TOC, dissolved Fe^{2+}, chloride, nitrate, and sulfate. Water quality parameters collected during low-flow sampling included pH, temperature, specific conductivity, DO, ORP, and turbidity. These parameters are discussed in Section 6.2 regarding the potential for biodegradation in the groundwater at SWMU 49. **Table 4-1** presents the suite of analytes collected for analysis during the twenty-seventh monitoring event.

Groundwater samples were collected by low-flow peristaltic pumps to obtain representative groundwater samples and to minimize investigation-derived waste (IDW) purge water. The following procedures were followed during both semiannual groundwater monitoring events:

1. A photoionization detector (PID) reading was taken upon removing the well cap to determine the presence of potentially hazardous levels of volatile gases. The PID readings were collected during the water elevation sweeps and again during sample collection. All PID readings were within acceptable levels.

2. During the water level sweep, DTW and total depth measurements were recorded to determine the amount of water in the well casing and sand pack. Only approximate total well depths were measured during the semiannual events to confirm that the total depths were consistent with the data from the previous reports.

3. Groundwater samples were collected after all water level elevations had been recorded. The general practice was to lower the peristaltic pump tubing to a depth where the pump tubing inlet was within the screened interval. Ample hydraulic head was maintained above the tubing depth to ensure a sufficient water supply. The pump was connected to a Geocontrol PRO control unit, whereas the discharge tubing was connected to a YSI 556 water quality flow cell.

4. Monitoring wells were pumped at a rate of approximately 200 milliliters per minute. Flow rate was determined by gauging the time it took to fill a 200-milliliter vial. Water quality parameters were recorded continuously including temperature, pH, DO, ORP, turbidity, and specific conductivity. Turbidity was measured using a Hach 2100Q turbidity meter, whereas concentrations of dissolved Fe^{2+} were measured in the field using a Hach DR900 test kit by Method 8146.

5. The groundwater flow rate was maintained during sample collection. Samples were collected, labeled, and packed in ice until shipment to the laboratory. Chain-of-custody (CoC) forms were filled out and shipped with the samples. Copies of the CoC forms are provided in **Appendix B-1**, along with the raw analytical data packages.

Table 4-3 presents a summary of the final (stabilized) water quality readings for each well from the twenty-seventh event. Based on the twenty-seventh event DO data, slightly aerobic groundwater conditions are prominent in 13 of 15 monitoring wells at SWMU 49 (i.e., DO greater than 1 part per million [ppm]). The DO levels ranged from a low of 0.80 milligrams per liter (mg/L) at monitoring well 13MW4 to a high of 12.99 mg/L at monitoring well 48MW07. ORP measurements ranged from a low of 32.2 millivolts (mV) at monitoring well 49MW04 to a high of 230.9 mV at monitoring well 48MW1. Measurements of pH ranged from a low of 7.18 standard units (SU) at monitoring well 13MW3 to a high of 8.59 SU at monitoring well 48MW11. As evidenced in **Table 4-3**, 11 of 15 pH measurements were below 8.0. Measuring the suitability of the groundwater to support microbial species is accomplished through pH readings. Microbial activity tends to be reduced outside of a pH range of 5 to 9, and anaerobic microorganisms are typically sensitive to pH extremes (Interstate Technology and Regulatory Council [ITRC], 1999). Measurements of specific conductivity ranged from a low of 5.7 microsiemens per centimeter (µS/cm) at monitoring well 48MW1 to a high of 760 µS/cm at monitoring well 50MW02.

4.1.3 Quality Control Samples

Quality control (QC) samples, including two duplicate samples, two trip blanks, one equipment blank, and one matrix spike/matrix spike duplicate (MS/MSD), were collected during the twenty-seventh monitoring event.

Two duplicate samples (13MW3/13TW3 and 48MW34/48TW3) were collected during the twenty-seventh monitoring event and were analyzed for the same full suite of compounds as the parent sample. Two trip blanks were collected. Further, one MS/MSD was collected and analyzed for the same full suite of compounds as the parent sample.

One IDW purge water sample (49IDW) was collected and analyzed for pH, chemical oxygen demand (COD), and total Target Analyte List metals. All collected purge water for all events was taken to the ACD area for storage and deposited in a 55-gallon drum labeled 48/49, with RFAAP providing subsequent disposal.

Results of the quality assurance (QA)/QC samples are presented in the raw analytical data package provided in **Appendix B-1**.

4.2 TWENTY-EIGHTH SEMIANNUAL GROUNDWATER SAMPLING

Groundwater elevation measurements and samples were collected from all 15 POC monitoring wells. The twenty-eighth event of groundwater sampling was conducted from July 11-14, 2023. Groundwater elevation measurements were collected prior to sampling activities. The locations of monitoring wells sampled during this event are provided in **Figure 4-1**.

4.2.1 Groundwater Elevation Measurements

Water level elevations were collected during each Year Eight semiannual event from the 15 monitoring wells at SWMU 49 prior to the collection of groundwater samples. **Table 4-4** provides the measured DTW levels (from the top of the casing) and groundwater elevations amsl as collected from July 11-14, 2023. **Figure 4-3** presents a groundwater elevation contour map developed from the elevation data collected during this monitoring event.

4.2.2 Groundwater Sampling

Groundwater samples were collected from 11 POC monitoring wells from July 11-14, 2023. The twenty-eighth semiannual monitoring samples were tested for the same analytes as the twenty-seventh event, which are presented in **Table 4-1**. In addition, the same MNA indicator parameters were collected in the twenty-eighth event as were collected in the twenty-seventh event: TOC, dissolved Fe^{2+}, chloride, nitrate, and sulfate. Water quality parameters collected during low-flow

sampling included pH, temperature, specific conductivity, DO, ORP, and turbidity. These parameters are discussed in Section 6.2 regarding the potential for biodegradation in the groundwater at SWMU 49.

Groundwater samples were collected applying the same method and approach used during the twenty-seventh semiannual monitoring event: specifically, by low-flow peristaltic pumps.

Table 4-5 presents a summary of the final (stabilized) water quality readings for each well from the twenty-eighth event. Based on the twenty-eighth event DO data, aerobic groundwater conditions exist at 9 of 11 monitoring well locations at SWMU 49 (i.e., DO greater than 1 ppm). The DO levels ranged from a low of 0.93 mg/L at monitoring well 13MW4 to a high of 9.68 mg/L at monitoring well 49MW01. ORP measurements ranged from a low of 89.6 mV at monitoring well 50MW02 to a high of 178.6 mV at monitoring well 48MW2. Measurements of pH ranged from a low of 7.05 SU at monitoring well 50MW02 to a high of 8.14 SU at monitoring well 49MW01. Measurements of specific conductivity ranged from a low of 422 µS/cm at monitoring well 49MW01 to a high of 854 µS/cm at monitoring well 48MW06. Copies of the CoC forms are provided in **Appendix B-1**, along with the raw analytical data packages.

4.2.3 Quality Control Samples

QC samples, including two duplicate samples, four trip blanks, one equipment blank, and one MS/MSD, were collected during the twenty-eighth semiannual monitoring event.

Two duplicate samples were collected during the twenty-eighth monitoring event at monitoring wells 49MW04 (duplicate as 49TW04) and 49MW01 (duplicate as 49TW01) and were analyzed for the full suite of compounds as the parent sample. Four trip blanks were collected (one for each day [July 11-14, 2023] of sampling at SWMU 49). Further, one MS/MSD was collected and analyzed for the same full suite of compounds as the parent sample.

One IDW purge water sample (49IDW) was collected and analyzed for pH, COD, and total metals.

Table 4-1 SWMU 49 Year Eight Semiannual Monitoring Analytical Suite

Well ID	Frequency	TCL VOCs	Dissolved Gases (Methane, Ethane, Ethene)	MNA Indicator Parameters	Water Quality Parameters
13MW2	Semiannual	X	X	X	X
13MW3	Semiannual	X	X	X	X
13MW4	Semiannual	X	X	X	X
13MW5	Annual	X	X	X	X
48MW1	Semiannual	X	X	X	X
48MW2	Semiannual	X	X	X	X
48MW3	Semiannual	X	X	X	X
48MW06	Semiannual	X	X	X	X
48MW07	Annual	X	X	X	X
49MW01	Semiannual	X	X	X	X
49MW02	Semiannual	X	X	X	X
49MW03	Annual	X	X	X	X
49MW04	Semiannual	X	X	X	X
49MW05	Annual	X	X	X	X
50MW02	Semiannual	X	X	X	X

Notes:
ID = identification
MNA = monitored natural attenuation
TCL = target compound list
VOC = volatile organic compound

Table 4-2 SWMU 49 Twenty-Seventh Semiannual Groundwater Elevations

Well ID	Screen Interval (ft bgs)	Screen Length (ft)	Total Depth (ft)	Water Level (ft BTOC)	Elevation (top of casing) (ft amsl)	Water Level (ft amsl)	PID Readings (ppm)
48MW07	62 – 82	20	82	50.19	1,833.69	1,783.50	PID = 0.0
13MW5	14 – 25	19	25	16.63	1,696.40	1,679.77	PID = 0.2
49MW03	77 – 117	40	117	105.43	1,811.82	1,706.39	PID = 0.0
49MW05	16 – 37	19	36.8	20.25	1,699.74	1,679.49	PID = 0.0
48MW06	58 – 78	20	78	66.52	1,822.85	1,756.33	PID = 0.4
48MW1	110 – 140	30	140	110.56	1,816.42	1,705.86	PID = 0.0
48MW2	113 – 134	20	133.7	125.13	1,816.27	1,691.14	PID = 0.1
48MW3	100 – 120	20	120	97.03	1,808.56	1,711.53	PID = 0.0
49MW01	90 – 121	31	121	115.70	1,826.42	1,710.72	PID = 0.1
49MW02	103 – 133	30	133	92.74	1,806.29	1,713.55	PID = 0.0
50MW02	89 – 119	30	119	116.59	1,809.63	1,693.04	PID = 0.0
13MW2	19 – 29	10	29	21.73	1,702.62	1,680.89	PID = 2.8
13MW3	9 – 19	10	19	15.20	1,694.47	1,679.27	PID = 0.0
13MW4	14 – 24	10	24	16.73	1,696.40	1,679.67	PID = 0.4
49MW04	50 – 70	20	72	20.94	1,703.00	1,682.06	PID = 8.4

Notes:
amsl = above mean sea level
bgs = below ground surface
BTOC = below top of casing
ft = feet
ID = identification
PID = photoionization detector
ppm = parts per million

Table 4-3 SWMU 49 Twenty-Seventh Semiannual Water Quality Parameters

Well ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)
48MW07	11.8	209.2	7.99	12.99	149.1	> 1,000
13MW5	13.4	690.0	7.57	4.18	148.9	2.67
49MW03	10.3	350.0	8.24	9.89	175.0	1089.0
49MW05	14.1	582.3	7.41	2.46	57.7	14.85
48MW06	11.6	721.0	7.29	8.92	140.6	295.4
48MW1	12.3	5.7	8.59	9.93	230.9	668.9
48MW2	9.7	497.0	7.93	8.40	166.2	> 1,000
48MW3	11.5	705.0	7.64	5.82	153.2	66.29
49MW01	11.6	437.2	8.16	7.25	124.4	> 1,100
49MW02	10.3	350.2	8.24	9.89	175.0	489
50MW02	11.5	760.0	7.37	4.98	133.9	487.4
13MW2	14.5	687.0	7.37	4.16	72.4	5.71
13MW3	13.8	594.2	7.18	5.17	101.1	9.81
13MW4	14.7	542.4	7.55	0.80	80.9	8.34
49MW04	13.8	641.0	7.44	0.89	32.2	15.57

Notes:
°C = degrees Celsius
> = greater than
µS/cm = microsiemens per centimeter
ID = identification
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric turbidity unit
pH = corrosivity/hydrogen ion concentration

Table 4-4 SWMU 49 Twenty-Eighth Semiannual Groundwater Elevations

Well ID	Screen Interval (ft bgs)	Screen Length (ft)	Total Depth (ft)	Water Level (ft BTOC)	Elevation (top of casing) (ft amsl)	Water Level (ft amsl)	PID Readings (ppm)
48MW07	62 – 82	20	82	48.55	1,833.69	1,785.14	PID = 0.0
13MW5	14 – 25	19	25	16.77	1,696.40	1,679.63	PID = 0.0
49MW03	77 – 117	40	117	104.40	1,811.82	1,707.42	PID = 0.0
49MW05	16 – 37	19	36.8	20.26	1,699.74	1,679.48	PID = 0.0
48MW06	58 – 78	20	78	66.47	1,822.85	1,756.38	PID = 0.0
48MW1	110 – 140	30	140	106.46	1,816.42	1,709.96	PID = 0.0
48MW2	113 – 134	20	133.7	124.06	1,816.27	1,692.21	PID = 0.1
48MW3	100 – 120	20	120	96.85	1,808.56	1,711.71	PID = 0.0
49MW01	90 – 121	31	121	115.65	1,826.42	1,710.77	PID = 0.0
49MW02	103 – 133	30	133	92.65	1,806.29	1,715.24	PID = 0.0
50MW02	89 – 119	30	119	115.12	1,809.63	1,694.51	PID = 0.0
13MW2	19 – 29	10	29	21.28	1,702.62	1,681.34	PID = 0.0
13MW3	9 – 19	10	19	15.15	1,694.47	1,679.32	PID = 0.0
13MW4	14 – 24	10	24	16.71	1,696.40	1,679.69	PID = 0.0
49MW04	50 – 70	20	72	20.76	1,703.00	1,682.24	PID = 0.0

Notes:
amsl = above mean sea level
bgs = below ground surface
BTOC = below top of casing
ft = feet
ID = identification
PID = photoionization detector
ppm = parts per million

Table 4-5 SWMU 49 Twenty-Eighth Semiannual Water Quality Parameters

Well ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Dissolved Oxygen (mg/L)[1]	ORP (mV)	Turbidity (NTU)
48MW06	15.5	854	7.08	2.24	90.2	32.4
48MW1	27.4	557	7.56	7.80	145.2	116.0
48MW2	16.4	512	7.39	6.87	178.6	> 1,000
48MW3	14.2	727	7.16	5.23	172.3	2.26
49MW01	19.1	422	8.14	9.68	158.7	> 1,000
49MW02	14.0	572	7.35	2.50	108.7	105.0
50MW02	14.3	685	7.05	5.01	89.6	13.3
13MW2	15.7	691	7.27	6.51	152.4	2.75
13MW3	15.5	608	7.13	4.22	155.1	6.09
13MW4	14.7	535	7.26	0.93	175.3	8.45
49MW04	15.8	677	7.37	0.99	120.8	9.7

Notes:
[1] Despite appropriate calibration, DO levels were significantly above the saturation value for unknown reasons and consequently are questionable.

°C = degrees Celsius
µS/cm = microsiemens per centimeter
DO = dissolved oxygen
ID = identification
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity unit
ORP = oxidation-reduction potential
pH = corrosivity/hydrogen ion concentration

Legend

- Well
- SWMU 49 Boundary

Aerial Source:
Near Map Imagery, February 2020

N

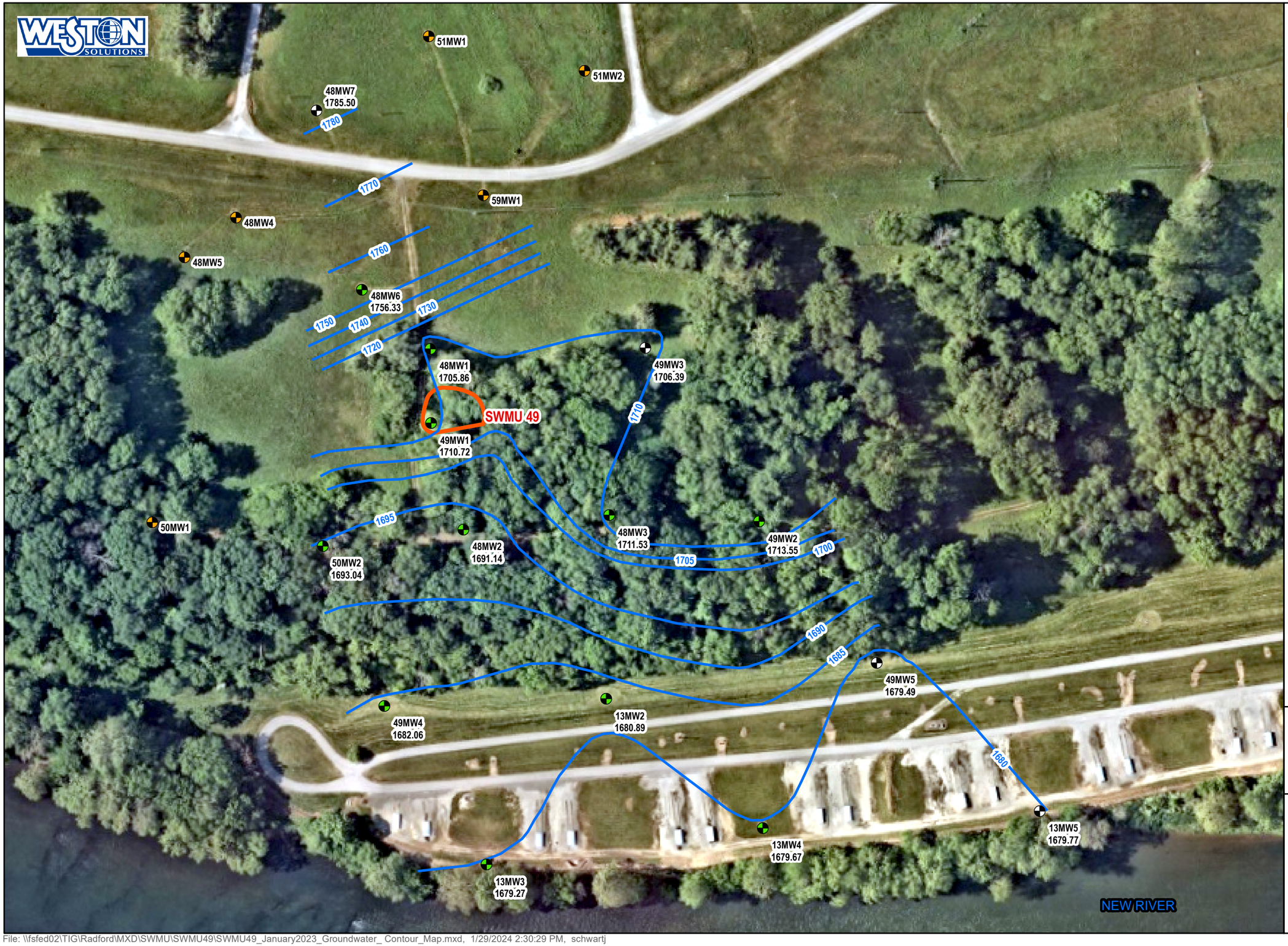
0 55 110 220 Feet

Prepared By:

Baltimore District

FIGURE 4-1
SWMU 49 MONITORING
WELL SAMPLE LOCATIONS
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Monitoring_Well_Sample_Locations.mxd, 10/21/2020 1:12:15 PM, johna



Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- Groundwater Contour
- SWMU 49 Boundary

Note:
Contours are in feet above mean sea level (amsl).

Aerial Source:
Near Map Imagery, June 2023

N

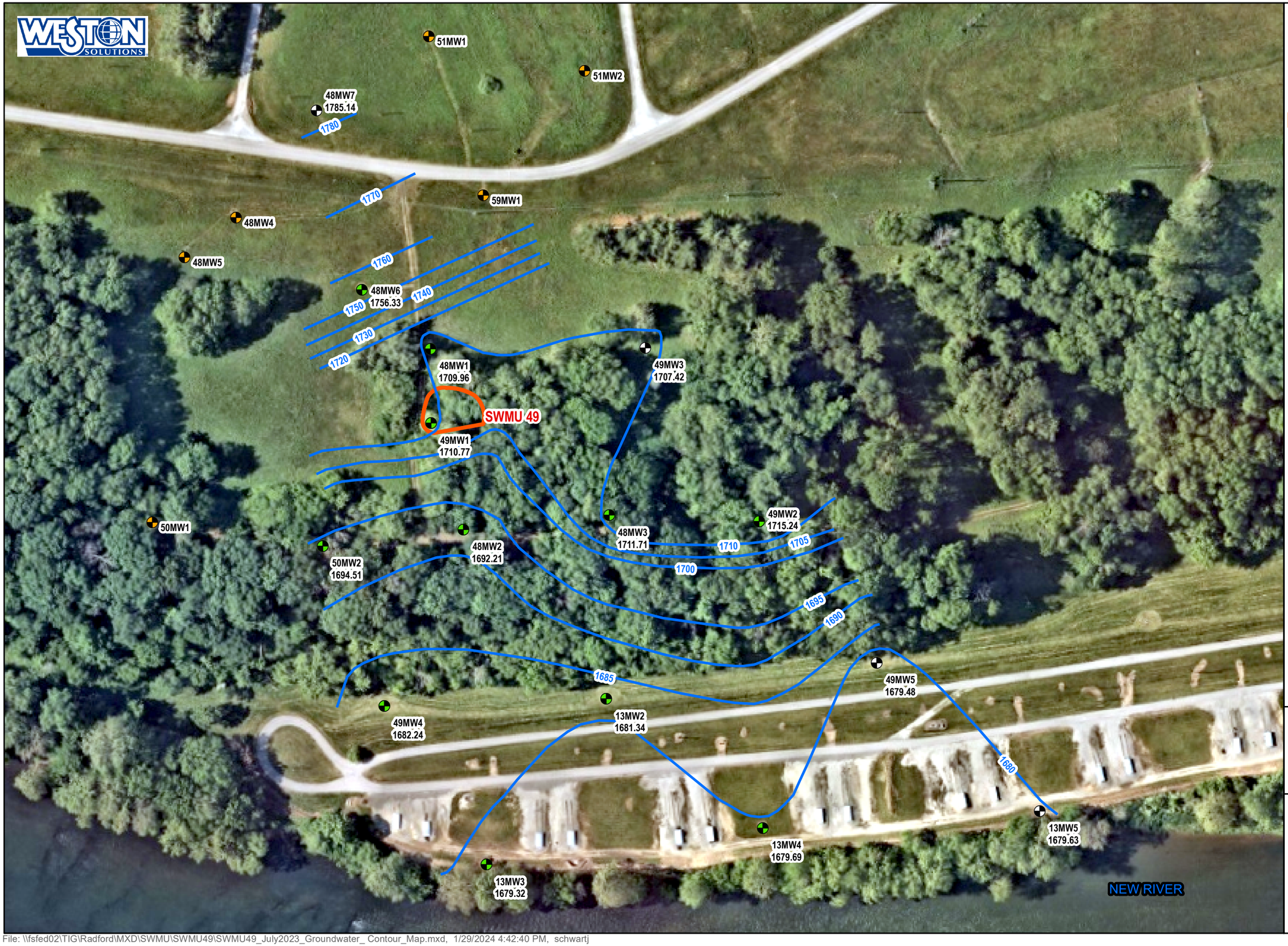
0 50 100 200 Feet

Prepared By:

Baltimore District

FIGURE 4-2
SWMU 49 JANUARY 2023
GROUNDWATER CONTOUR MAP
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_January2023_Groundwater_ Contour_Map.mxd, 1/29/2024 2:30:29 PM, schwartj



Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- Groundwater Contour
- SWMU 49 Boundary

Note:
Contours are in feet above mean sea level (amsl).

Aerial Source:
Near Map Imagery, June 2023

N

0 50 100 200 Feet

Prepared By:

Baltimore District

FIGURE 4-3
SWMU 49 JULY 2023
GROUNDWATER CONTOUR MAP
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_July2023_Groundwater_ Contour_Map.mxd, 1/29/2024 4:42:40 PM, schwartj

5. CHEMICAL ANALYTICAL RESULTS

5.1 SELECTION OF COMPARISON CRITERIA

The chemical data collected during the Year Eight MNA groundwater monitoring investigation were compared to RGs selected in the approved Draft SWMU 48/49 RFI Report (CB&I, 2014a). **Tables 5-1** through **5-4** present the analytical results and summaries of the twenty-seventh and twenty-eighth semiannual event monitoring data, including number of results that exceeded the RGs, frequency of detection, the minimum and maximum detected concentrations, and the location of the maximum concentration.

5.2 TWENTY-SEVENTH SEMIANNUAL GROUNDWATER RESULTS

The twenty-seventh semiannual monitoring event served as the annual event for the Year Eight MNA sampling. As such, 14 POC monitoring wells were sampled: 13MW2, 13MW3, 13MW4, 13MW5, 48MW1, 48MW2, 48MW3, 48MW06, 48MW07, 49MW01, 49MW3, 49MW04, 49MW5, and 50MW02. Samples were not collected from 49MW02 due to equipment malfunctions. Two duplicate samples were collected (49MW04/49TW04 and 48MW3/48TW3). Sample locations are provided in **Figure 4-1**. (Note: Both annual and semiannual wells were sampled during this monitoring event.)

Samples were submitted for TCL VOCs and MNA indicator parameter analyses, including dissolved gases (methane, ethane, and ethene) and dissolved iron (Fe). A summary of detected constituents is provided in **Table 5-1**, and a subset of the results, consistent with the reporting in previous SWMU 49 LTM reports, is presented in **Table 5-2**. The CT plume is shown in **Figure 5-1**, and the TCE plume is shown in **Figure 5-2**. The potential for biodegradation in the groundwater at SWMU 49 is discussed in Section 6.2.

TCL VOCs

Seven VOCs were detected in groundwater samples: 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), CT, chloroform, cis-1,2-DCE, PCE, and TCE. Eight of the 14 monitoring wells had one or more detections of the VOCs listed above; monitoring wells 48MW1, 48MW7, 49MW03, 13MW2, 13MW5, and 49MW05 did not have any detections of VOCs.

The VOC 1,1,1-TCA was detected at monitoring well 48MW06 at an estimated concentration of 1 µg/L. An RG for 1,1,1-TCA has not been established for SWMU 49; however, the USEPA MCL for 1,1,1-TCA is 200 µg/L (USEPA, 2018).

The VOC 1,1-DCA was detected in one monitoring well, 48MW06, at an estimated concentration of 1 µg/L (48MW06). An RG for 1,1-DCA has not been established for SWMU 49. There is no USEPA MCL for 1,1-DCA (USEPA, 2018); however, the tapwater regional screening level (RSL) is 2.8 µg/L (USEPA, 2021).

The VOC CT was detected at six monitoring wells: 48MW2, 48MW3, 49MW01, 50MW02, 13MW3, and 49MW04. Three monitoring wells contained CT concentrations that exceeded the RG of 5 µg/L: 48MW2 (14 µg/L), 48MW3 (55 µg/L from duplicate samples 48TW3), and 13MW3 (5.4 µg/L). The range of concentrations detected during this semiannual event went from a low of an estimated value of 1.3 µg/L (50MW02) to a high of 53 µg/L (48MW3). The CT plume is shown in **Figure 5-1**; the size of the area still exceeding the RG of 5 µg/L is estimated at 3.2 acres. The RG exceedance area presented in **Figure 5-1** was estimated based on triangulation of CT concentrations in the wells to establish the area above the RG of 5 µg/L. This methodology was used to estimate the RG exceedance area for all COCs for each semiannual event.

The VOC chloroform was detected in three monitoring wells: 48MW2, 48MW3, and 13MW3. Concentrations ranged from an estimated low of 0.57 µg/L (13MW3) to a high of 8.8 µg/L (48MW3). An RG for chloroform has not been established for SWMU 49; however, the USEPA MCL for chloroform is 80 µg/L (USEPA, 2018).

The VOC cis-1,2-DCE was detected in one monitoring well, 48MW06, at a concentration of 3.6 µg/L at 48MW06. An RG for cis-1,2-DCE has not been established for SWMU 49; however, the USEPA MCL for cis-1,2-DCE is 70 µg/L (USEPA, 2018).

The VOC TCE was detected at four monitoring wells: 48MW06, 48MW2, 48MW3, and 50MW02. Monitoring well 48MW3 contained a concentration of TCE that exceeded the RG of 5 µg/L. The range of concentrations detected during this semiannual event went from an estimated low of 0.83 µg/L (50MW02) to a high of 11.0 µg/L (48TW3 which is duplicate at well 48MW3). The TCE plume is shown in **Figure 5-2**; the size of the area still exceeding the RG of 5 µg/L is estimated at 0.90 acre.

Miscellaneous Analytes

Groundwater samples were also analyzed for MNA indicators (TOC, dissolved Fe^{2+} and manganese, dissolved gases, chloride, nitrate, and sulfate) for the purposes of evaluating the effectiveness of the MNA process.

TOC was detected in two monitoring wells at a concentration range of 0.65 (48MW06) to 0.91 µg/L (13MW2). Concentrations of dissolved Fe^{2+} ranged from a low of 0.0 mg/L (non-detect) to a high of 0.98 mg/L (49MW2), whereas dissolved manganese levels ranged from a low of 0.2 mg/L (48MW3) to a high of 9.7 mg/L (48MW2). Chloride concentrations ranged from a low estimated value of 1.3 mg/L (48MW7) to an estimated high of 11 mg/L (48MW06). Detected concentrations of nitrate ranged from an estimated low of non-detect (49MW05) to a high of 6.3 mg/L (48MW3 and duplicate 48TW3). Sulfate concentrations ranged from an estimated low of 1.9 mg/L (49MW01) to a high of 150 mg/L (13MW5). Methane concentrations ranged from an estimated low of non-detect in numerous wells to an estimated high of 4.5 mg/L (48MW7). Ethane concentrations ranged from an estimated low of non-detect in numerous wells to an estimated high of 0.63 mg/L (13MW4). Ethene went undetected during this semiannual monitoring event. **Table 5-2** presents the MNA indicator parameters sample results.

5.3 TWENTY-EIGHTH SEMIANNUAL GROUNDWATER RESULTS

The twenty-eighth semiannual monitoring event served as the semiannual event for the Year Eight MNA sampling. As such, 11 POC monitoring wells were sampled: 13MW2, 13MW3, 13MW4, 48MW1, 48MW2, 48MW3, 48MW06, 49MW01, 49MW02, 49MW04, and 50MW02. Two duplicate samples were collected from monitoring wells 49MW01 (duplicate as 49TW01) and 49MW04 (duplicate as 49TW04). Sample locations are provided in **Figure 4-1**.

Samples were submitted for TCL VOCs, dissolved gases (methane, ethane, and ethene), and MNA indicator parameter analyses. A summary of detected constituents is provided in **Table 5-3**, and a subset of the results, consistent with the reporting in previous SWMU 49 LTM reports, is presented in **Table 5-4**. The CT plume is shown in **Figure 5-3**, and the TCE plume is shown in **Figure 5-4**. The potential for biodegradation in the groundwater at SWMU 49 is discussed in Section 6.2.

TCL VOCs

Five VOCs were detected in groundwater samples: 1,1-DCA, CT, chloroform, cis-1,2-DCE, and TCE. Nine monitoring wells had one or more detected concentrations of the VOCs listed above. Monitoring wells 49MW02 and 13MW2 did not have detected concentrations of VOCs.

The VOC 1,1,1-TCA was not detected in any of the wells.

The VOC 1,1-DCA was detected at two monitoring wells, 48MW06 at a concentration of 3 µg/L and 48MW1 at an estimated concentration of 0.50 µg/L. An RG for 1,1-DCA has not been established for SWMU 49. There is no USEPA MCL for 1,1-DCA (USEPA, 2018); however, the tapwater RSL is 2.8 µg/L (USEPA, 2021).

The VOC CT was detected at seven monitoring wells: 48MW2, 48MW3, 49MW01, 50MW02 (and associated FD 50TW02), 13MW3, 13MW4, and 49MW04 (and associated duplicate 49TW04). Three monitoring wells contained CT concentrations that exceeded the RG of 5 µg/L: 48MW2 (19 µg/L), 48MW3 (76 µg/L), and 13MW3 (5.2 µg/L). These results are similar to those from the previous monitoring events. The size of the area still exceeding the RG of 5 µg/L is the same as the twenty-seventh event and is estimated at 3.5 acres. The range of concentrations detected during this sampling event went from a low of an estimated value of 0.38 µg/L (49MW01) to a high of 76 µg/L (13MW3).

Chloroform was detected in three monitoring wells, 48MW2, 48MW3, and 13MW3, at concentrations ranging from a low of 0.54 µg/L (13MW3) to a high of 5.9 µg/L (48MW3). Compared to the twenty-seventh event monitoring results, the detected concentration of chloroform in monitoring well 48MW3 decreased from 8.8 µg/L to 5.9 µg/L. An RG for chloroform has not been established for SWMU 49; however, the USEPA MCL for chloroform is 80 µg/L (USEPA, 2018).

The VOC cis-1,2-DCE was detected in two monitoring wells, 48MW06 and 48MW1, at a concentration of 5.9 µg/L and an estimated concentration of 0.60 µg/L, respectively. When compared to the twenty-seventh event monitoring results, concentrations were similar. An RG for cis-1,2-DCE has not been established for SWMU 49; however, the USEPA MCL for cis-1,2-DCE is 70 µg/L (USEPA, 2018).

The VOC TCE was detected at seven monitoring wells: 48MW06, 48MW1, 48MW2, 48MW3, 50MW02, 13MW3, and 13MW4. Monitoring well 48MW3 contained a concentration of TCE that exceeded the RG of 5 µg/L (13 µg/L). The size of the area still exceeding the RG of 5 µg/L is estimated at 1.2 acres, which is an increase from the twenty-seventh event. The range of concentrations detected during this event went from an estimated low value of 0.41 µg/L (48MW1) to a high of 13.0 µg/L (48MW3) (**Figure 5-4**). When compared to the previous event sampling results, concentrations in most wells were similar.

Miscellaneous Analytes

Groundwater samples were also analyzed for MNA indicators (TOC, dissolved Fe^{2+} and manganese, dissolved gases, chloride, nitrate, and sulfate) for the purposes of evaluating the effectiveness of the MNA process.

TOC was detected in 2 of the 11 monitoring wells at an estimated value of 0.76 mg/L (48MW06) and 1.2 mg/kg (49MW01). Concentrations of dissolved Fe^{2+} ranged from a low of 0.0 mg/L to a high of 0.78 mg/L (49MW01). Dissolved manganese levels ranged from a low of 0.0 mg/L to a high of 6.5 mg/L (49MW01). Chloride concentrations ranged from an estimated low of 1.5 mg/L (48MW2 and 49MW02) to a high of 10 mg/L (48MW06). Concentrations of nitrate ranged from 0.32 mg/L (13MW2 and 13MW4) to a high of 7 mg/L (48MW3). Sulfate concentrations ranged from an estimated low of 0.86 mg/L (49MW01) to a high of 120 mg/L (48MW06). Methane was detected in one monitoring well, 48MW2, at a concentration of 0.65 µg/L. Ethane and ethene went undetected during this semiannual monitoring event. **Table 5-4** presents the MNA indicator parameters sample results.

5.4 YEAR EIGHT SAMPLE RESULTS

This section discusses the results from the Year Eight MNA sampling. Samples collected were analyzed for the full suite of analytical parameters described in **Table 4-1** (TCL VOCs and MNA indicator parameters including dissolved gases [methane, ethane, and ethene] and dissolved Fe^{2+}).

5.4.1 Carbon Tetrachloride

The VOC CT was detected in six monitoring wells during the twenty-seventh and twenty-eighth semiannual monitoring events. CT was detected in monitoring wells 48MW2, 48MW3, 49MW01, 49MW04, 50MW02, and 13MW3 in both semiannual events.

The highest concentrations were consistently detected at monitoring wells 48MW2, 48MW3, and 13MW3, with the highest levels (76 µg/L) observed in both events at 48MW3. Concentrations detected in these three wells exceeded the RG of 5 µg/L in each semiannual event. In general, the concentrations detected at these three wells were only a slight variable from event to event with no clear increasing or decreasing trend, consistent with Years Two through Eight MNA sampling results. The remaining wells with observed detections were well below the RG and, in general, had concentrations that were relatively steady, with minor fluctuations, throughout the Year Seven MNA sampling. **Figures 5-5** and **5-6** depict the concentrations at these sampling locations throughout Year Eight semiannual sampling. **Figure 5-7** provides a time series plot of CT concentrations dating back to samples collected in 1995.

5.4.2 Trichloroethene

The VOC TCE was detected in seven monitoring wells during the twenty-eighth semiannual monitoring events: 48MW06, 48MW1, 48MW2, 48MW3, 50MW02, 13MW3, and 13MW4. The highest concentrations were consistently detected at monitoring well 48MW3. Concentrations detected in monitoring well 48MW3 exceeded the RG of 5 µg/L in both semiannual events (11.0 µg/L and 13.0 µg/L), with no other sample concentrations at other wells exceeding the RG. In general, the concentrations detected in all seven monitoring wells were variable from event to event with no clear increasing or decreasing trend. **Figures 5-5** and **5-6** depict the concentrations at these sampling locations throughout Year Eight of semiannual sampling. **Figure 5-8** provides a time series plot of TCE concentrations dating back to samples collected in 1995.

5.5 LABORATORY ANALYSIS, DATA VALIDATION, AND REPORTING

The Year Eight MNA sampling for SWMU 49 was collected semiannually in January and July 2023. Groundwater samples were collected in accordance with the Quality Assurance Project Plan (QAPP), revised August 2015. Documentation pertaining to CoC and sample condition was filed in field and laboratory records. A summary of samples and analyses is included in **Table 5-5**. Analytical methods are provided in **Table 5-6**.

The samples were placed into coolers with ice at the time of collection. The CoC forms were completed as the samples were packaged into coolers for transport. Trip blanks, temperature blanks, and ice were added as required. All coolers were shipped to the main laboratory, CT

Laboratories in Baraboo, WI. The trip blanks were packed in the coolers with the VOC and methane/ethane/ethene samples.

The analytical data were reviewed for consistency with the test methods as noted in **Table 5-6** and the project QAPP to ensure that the data set met project data quality objectives and was usable for the purposes of the project. Validation was performed following the National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2014a), National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2014b), and professional judgment. Any anomalies to the requirements for precision, accuracy, representativeness, completeness, comparability, and sensitivity are discussed below, and the data were flagged where appropriate.

Application of Data Flags

General data quality flagging conventions in **Table 5-7** were used to indicate QC anomalies. Data were flagged, where appropriate, in accordance with the National Functional Guidelines and the project QAPP.

Preservation, Temperature, and Hold Time

All sample preservation requirements were met. Most sample analyses (except for nitrate) were within holding time. Refer to **Table 5-8** for holding time exceedances.

5.5.1 Precision

Precision was measured from the relative percent difference (RPD) between the parent sample/FD, laboratory duplicates, laboratory control sample (LCS), and the MS/MSD pairs. MS/MSD sample collection and analysis were performed at a frequency of 5% of field samples.

Field Duplicates

FDs were collected at a frequency of 10% of field samples. Only one sample (sulfate) exceeded its RPD control limits. **Table 5-9** lists FD exceedances.

Matrix Spike/Matrix Spike Duplicate Relative Percent Difference

No MS/MSD RPD exceedances were noted for the groundwater samples. **Table 5-10** lists MS/MSD RPD exceedances.

5.5.2 Accuracy

Accuracy was measured from laboratory QC sample percent recoveries, including LCS, MS, MSD, and surrogates. Accuracy was also evaluated by determining whether any deviations to method or laboratory requirements for internal standards, initial calibration verification (ICV), and continuing calibration verification (CCV) recoveries were noted in the case narrative(s).

Laboratory Control Sample/Matrix Spike/Matrix Spike Duplicate Recovery

One LCS was analyzed for each batch of 20 samples or fewer. All LCS recoveries were within control limits. As shown in **Table 5-11**, no LCS exceedances were noted.

MS/MSD analysis was performed at a frequency of 5% of field samples. Most recoveries were within control limits except for sulfate in four groundwater samples collected in the twenty-seventh sampling event in July 2023. **Table 5-12** presents MS/MSD recoveries outside control limits. The data for the parent sample were flagged as indicated in the table. If no flag was indicated, the data were not flagged. Data were not flagged in cases where the parent sample concentration was greater than four times the spike concentration.

Parent samples only were qualified.

Post-Digestion Spike Recovery Exceedances

Most recoveries were within control limits. There were no post-digestion spike (PDS) recovery exceedances.

Serial Dilution Percent Difference

All recoveries were within control limits. **Table 5-13** lists the serial dilution percent difference exceedances.

Surrogates

All surrogate recoveries were within control limits. There were no surrogates that exceeded acceptance criteria.

Internal Standards

There were no internal standards outside control limits.

Calibration Verification

Some calibration results were outside control limits for compounds not identified as COCs. **Table 5-14** summarizes calibration exceedances.

5.5.3 Representativeness

The samples were collected from locations specified in the approved *SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan* (Shaw, 2014). Representativeness of the data is considered acceptable.

5.5.4 Comparability

Comparability was acceptable. Standard analytical methods were used. Standard preparatory and analytical methods were applied to the samples across sampling events. In all cases, the detection limits and limits of detection attained were below the specified limits of quantitation (LOQs). All target compounds detected below the LOQs flagged (J) by the laboratory are considered estimated concentrations.

5.5.5 Completeness

Completeness was measured as the number of usable results versus the total number of results. The data set was 100% complete with no omissions or rejections with respect to analysis. The information fulfilled the data quality objectives of this investigation.

5.5.6 Sensitivity

Sensitivity was measured by evaluating whether the LOQ was less than RGs for constituents with RGs and less than the regulatory criteria for those constituents without RGs. All nominal LOQs were below the regulatory criteria.

Additionally, sensitivity was evaluated by determining whether method blank, trip blank, and rinsate blank results were less than the LOQs. Some analytes were detected in some blanks, leading to qualification of sample results.

Blanks (Calibration [Instrument], Method, Trip, and Rinsate)

Calibration blanks were analyzed throughout analytical runs.

One method blank was analyzed with every batch of 20 samples or fewer for each matrix.

One trip blank was included with each cooler for samples to be analyzed for VOCs and dissolved gases (methane, ethane, and ethene).

Table 5-15 presents samples flagged for blank results; none required qualification. Data quality and usability were not affected.

Reporting Limits

Nominal reporting limits, before adjustments for dilutions, were below the regulatory criteria noted in the project QAPP.

5.5.7 Data Usability Summary

In summary, all data were considered usable with the qualifications discussed above. The completeness goals for the project were met. The data were considered of good quality for the project goals, and no J-flagged results affected the overall conclusions as to whether MNA is occurring.

Low MS/MSD (**Table 5-12**) and PDS percent recoveries indicate that the associated sulfate results may be biased low for the associated samples.

The RPDs for laboratory duplicate and FD exceedance indicate that the associated results were estimated or non-detected estimated for the associated samples.

This data quality assessment was prepared by Validata Chemical Services, Inc. (Validata). Validata has provided data validation services since 1990 with completion of more than 350 environmental chemistry data validation contracts for all business sectors, including 35 USACE and 252 additional DoD contracts. Validata has been audited by the USEPA Quality Assurance Section and the U.S. Navy Environmental Project Management Group, and was approved as a data validation service by both agencies. Data validation reports are presented in **Appendix B-2**.

Table 5-1 SWMU 49 Summary of Detected Constituents in Twenty-Seventh Semiannual Groundwater Samples

Analyte	Units	RG	No. of RG Exceedances	No. of Detections	No. of Samples[1]	Minimum Concentration	Maximum Concentration	Location of Maximum
VOCs								
1,1,1-Trichloroethane	µg/L	NA	NA	1	16	ND	1.0	48MW06
1,1-Dichloroethane	µg/L	NA	NA	1	16	ND	1.6	48MW06
Carbon Tetrachloride	µg/L	4	4	8	16	ND	53	48MW3
Chloroform	µg/L	NA	NA	4	16	ND	8.8	48TW3
Cis-1,2-Dichloroethene	µg/L	NA	NA	1	16	ND	3.6	48MW06
Tetrachloroethene	µg/L	NA	NA	3	16	ND	1	48MW06
Trichloroethene	µg/L	5	2	5	16	ND	11	48TW3
Miscellaneous								
Chloride	mg/L	NA	NA	16	16	1.3	11	48MW06
Ethane	µg/L	NA	NA	3	16	ND	0.63	13MW4
Ethene	µg/L	NA	NA	0	16	ND	ND	NA
Methane	µg/L	NA	NA	4	16	ND	0.93	48MW7
Nitrate (as N)	mg/L	NA	NA	15	16	ND	6.3	48MW3/48TW3
Sulfate	mg/L	NA	NA	16	16	1.9	150	13MW5
Total Organic Carbon	mg/L	NA	NA	2	16	ND	0.91	13MW2

Notes:
[1] Includes two duplicate samples
µg/L = micrograms per liter
mg/L = milligrams per liter
NA = not applicable
ND = non-detect
No. = number
RG = remedial goal
VOC = volatile organic compound

Table 5-2 SWMU 49 Detected Analytes in Twenty-Seventh Semiannual Event Groundwater Samples

Sample ID			48MW06					48MW1					48MW2					48MW3					48TW3 (duplicate of 48MW3)					48MW7				
Date Collected			1/27/2023					1/27/2023					1/27/2023					1/27/2024					1/27/2023					1/27/2023				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																																
1,1,1-Trichloroethane	µg/L	NA	1	J		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38
1,1-Dichloroethane	µg/L	NA	1.6			2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43
Carbon Tetrachloride	µg/L	5	1	U		1.2	0.37	1	U		1.2	0.37	**14**			1.2	0.37	**53**			1.2	0.37	**55**			1.2	0.37	1	U		1.2	0.37
Chloroform	µg/L	NA	1	U		1.4	0.46	1	U		1.4	0.46	2.8			1.4	0.46	8.7			1.4	0.46	8.8			1.4	0.46	1	U		1.4	0.46
cis-1,2-Dichloroethene	µg/L	NA	3.6			1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41
Tetrachloroethene	µg/L	NA	1	J		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54
Trichloroethene	µg/L	5	1.8			1.2	0.39	1	U		1.2	0.39	0.71			1.2	0.39	**10**			1.2	0.39	**11**			1.2	0.39	1	U		1.2	0.39
Miscellaneous																																
Ethane	µg/L	NA	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.51	J		1	0.38
Ethene	µg/L	NA	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59
Methane	µg/L	NA	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.93	J		1	0.45
Chloride	mg/L	NA	11			3	1	5			3	1	1.6	J		3	1	2.6	J		3	1	2.6	J		3	1	1.3	J		3	1
Nitrate (as N)	mg/L	NA	2			0.4	0.12	1.7			0.4	0.12	0.74			0.4	0.12	6.3			0.4	0.12	6.3			0.4	0.12	0.94			0.4	0.12
Sulfate	mg/L	NA	120			3	0.8	53			3	0.8	5.6			3	0.8	35			3	0.8	38		J	3	0.8	3			3	0.8
Total Organic Carbon	mg/L	NA	0.65			3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U	U	3	0.5	1.5	U		3	0.5
MNA																																
Dissolved Mn	mg/L	NA	2.1					2.3					9.7					0.2					0.2					NS				
Dissolved Fe^{2+}	mg/L	NA	0.31					0.0					0.98					0.08					0.08					NS				

Table 5-2 SWMU 49 Detected Analytes in Twenty-Seventh Semiannual Event Groundwater Samples (continued)

Sample ID			49MW01					49MW02					49MW03					50MW02					13MW2					13MW3				
Date Collected			1/27/2023					1/27/2023					1/27/2023					1/27/2024					1/25/2023					1/25/2023				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																															
1,1,1-Trichloroethane	µg/L	NA	1	U		1.2	0.38	NS					1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38
1,1-Dichloroethane	µg/L	NA	1	U		2	0.43	NS					1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43
Carbon Tetrachloride	µg/L	5	2.6			1.2	0.37	NS					1	U		1.2	0.37	1.3			1.2	0.37	1	U		1.2	0.37	**5.4**			1.2	0.37
Chloroform	µg/L	NA	1	U		1.4	0.46	NS					1	U		1.4	0.46	1	U		1.4	0.46	1	U		1.4	0.46	0.57	J		1.4	0.46
cis-1,2-Dichloroethene	µg/L	NA	1	U		1.3	0.41	NS					1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41
Tetrachloroethene	µg/L	NA	1	U		2	0.54	NS					1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	0.88	J		2	0.54
Trichloroethene	µg/L	5	1	U		1.2	0.39	NS					1	U		1.2	0.39	0.83	J		1.2	0.39	1	U		1.2	0.39	1	J		1.2	0.39
Miscellaneous																															
Ethane	µg/L	NA	0.51	J		1	0.38	NS					0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38
Ethene	µg/L	NA	1.2	U		1.4	0.59	NS					1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59
Methane	µg/L	NA	0.93	J		1	0.45	NS					4.5			1	0.45	1.1			1	0.45	0.9	U		1	0.45	0.9	U		1	0.45
Chloride	mg/L	NA	4.8			3	1	NS					4.5			3	1	6.3			3	1	3.4			3	1	4.3			3	1
Nitrate (as N)	mg/L	NA	0.33	J		0.4	0.12	NS					1			0.4	0.12	1.9			0.4	0.12	0.31	J		0.4	0.12	2.1	J		0.4	0.12
Sulfate	mg/L	NA	1.9	J		3	0.8	NS					11			3	0.8	80			3	0.8	43			3	0.8	110			3	0.8
Total Organic Carbon	mg/L	NA	1.5	U		3	0.5	NS					1.5	U		3	0.5	1.5	U		3	0.5	0.91	J		3	0.5	1.5	U		3	0.5
MNA																															
Dissolved Mn	mg/L	NA	4.1					NS					2.2					1.4					1.0					0.9				
Dissolved Fe^{2+}	mg/L	NA	0.62					NS					0.28					0.42					0.34					0.12				

Table 5-2 SWMU 49 Detected Analytes in Twenty-Seventh Semiannual Event Groundwater Samples (Continued)

Sample ID			13MW4					13MW5					49MW04					49TW04 (duplicate of 49MW04)					49MW05				
Date Collected			1/25/2023					10/25/2023					1/25/2023					1/25/2023					1/25/2023				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
1,1,1-Trichloroethane	µg/L	NA	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38
1,1-Dichloroethane	µg/L	NA	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43
Carbon Tetrachloride	µg/L	5	1	U		1.2	0.37	1	U		1.2	0.37	1.4			1.2	0.37	1.4			1.2	0.37	1	U		1.2	0.37
Chloroform	µg/L	NA	1	U		1.4	0.46	1	U		1.4	0.46	1	U		1.4	0.46	1	U		1.4	0.46	1	U		1.4	0.46
cis-1,2-Dichloroethene	µg/L	NA	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41
Tetrachloroethene	µg/L	NA	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54
Trichloroethene	µg/L	5	0.91	J		1.2	0.39	1	U		1.2	0.39	1	U		1.2	0.39	1	U		1.2	0.39	1	U		1.2	0.39
Ethane	µg/L	NA	0.63	J		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38
Ethene	µg/L	NA	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59
Methane	µg/L	NA	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45
Chloride	mg/L	NA	3.5			3	1	4.3			3	1	6.3			3	1	6.4			3	1	2.5			3	1
Nitrate (as N)	mg/L	NA	0.19	J		0.4	0.12	0.79	J		0.4	0.12	0.38	J		0.4	0.12	0.39	J		0.4	0.12	0.2	U		0.4	0.12
Sulfate	mg/L	NA	69			3	0.8	150			3	0.8	64			3	0.8	64			3	0.8	44			3	0.8
Total Organic Carbon	mg/L	NA	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5
Dissolved Mn	mg/L	NA	0.5					0.45					1.7					1.7					0.9				
Dissolved Fe^{2+}	mg/L	NA	0.11					0.19					0.09					0.09					0.06				

Notes:
[1] Remedial goals developed in Draft SWMU 48/49 RFI Report (CB&I, 2014a).
Exceedances denoted by **bold font.**
µg/L = micrograms per liter (parts per billion)
Fe^{2+} = ferrous iron
ID = identification
LOD = limit of detection
LOQ = limit of quantitation
mg/L = milligrams per liter (parts per million)
Mn = manganese
MNA = monitored natural attenuation
NA = not applicable; remedial goal not established for analyte at SWMU 49
RFI = RCRA Facility Investigation
SWMU = Solid Waste Management Unit
RCRA = Resource Conservation and Recovery Act
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
Val Q = validation data qualifiers
J = Estimated value.
U = Analyte concentration was not above the detection level.
UJ = Non-detected estimated.

Table 5-3 SWMU 49 Summary of Detected Constituents in Twenty-Eighth Semiannual Groundwater Samples

Analyte	Units	RG	No. of RG Exceedances	No. of Detections	No. of Samples[1]	Minimum Concentration	Maximum Concentration	Location of Maximum
VOCs								
1,1,1-Trichloroethane	µg/L	NA	NA	0	13	ND	ND	NA
1,1-Dichloroethane	µg/L	NA	NA	2	13	ND	3	48MW06
Carbon Tetrachloride	µg/L	5	3	6	13	ND	26	48MW3
Chloroform	µg/L	NA	NA	6	13	ND	9.9	48MW3
cis-1,2-Dichloroethene	µg/L	NA	NA	2	13	ND	5.9	48MW06
Tetrachloroethene	µg/L	NA	NA	0	13	ND	ND	NA
Trichloroethene	µg/L	5	1	7	13	ND	13	48MW3
Miscellaneous								
Chloride	mg/L	NA	NA	13	13	1.7	10	48MW06
Ethane	µg/L	NA	NA	0	13	ND	ND	NA
Ethene	µg/L	NA	NA	0	13	ND	ND	NA
Methane	µg/L	NA	NA	1	13	ND	0.65	49MW02
Nitrate (as N)	mg/L	NA	NA	13	13	ND	7	48MW3
Sulfate	mg/L	NA	NA	13	13	3	120	48MW06
Total Organic Carbon	mg/L	NA	NA	3	13	ND	1.2	49MW01/49TW01

Notes:
[1] Includes one duplicate sample
µg/L = micrograms per liter
mg/L = milligrams per liter
NA = not applicable
ND = non-detect
No. = number
RG = remedial goal
VOC = volatile organic compound

Table 5-4 SWMU 49 Detected Analytes in Twenty-Eighth Semiannual Groundwater Samples

Sample ID			48MW06					48MW1					48MW2					48MW3					49MW01					49TW01 (duplicate of 49MW01)				
Date Collected			7/12/2023					7/13/2023					7/14/2023					7/14/2023					7/12/2023					7/12/2023				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																																
1,1,1-Trichloroethane	µg/L	NA	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38
1,1-Dichloroethane	µg/L	NA	3			2	0.43	0.5	J		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43
Carbon Tetrachloride	µg/L	5	1	U		1.2	0.37	1	U		1.2	0.37	**19**			1.2	0.37	**76**			1.2	0.37	0.38	J		1.2	0.37	1	U		1.2	0.37
Chloroform	µg/L	NA	1	U		1.4	0.46	1	U		1.4	0.46	3.2			1.4	0.46	9.9			1.4	0.46	1	U		1.4	0.46	1	U		1.4	0.46
cis-1,2-Dichloroethene	µg/L	NA	5.9			1.3	0.41	0.6	J		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41
Tetrachloroethene	µg/L	NA	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54
Trichloroethene	µg/L	5	2.9			1.2	0.39	0.41	J		1.2	0.39	1.2			1.2	0.39	**13**			1.2	0.39	1	U		1.2	0.39	1	U		1.2	0.39
Miscellaneous																																
Ethane	µg/L	NA	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38
Ethene	µg/L	NA	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59
Methane	µg/L	NA	0.9	U		1	0.45	0.9	U		1	0.45	0.65	J		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45
Chloride	mg/L	NA	10			3	1	5.7			3	1	1.5	J		3	1	2.2	J		3	1	4.6			3	1	4.6			3	1
Nitrate (as N)	mg/L	NA	2.6			0.4	0.12	1.6			0.4	0.12	0.76			0.4	0.12	7			0.4	0.12	0.34	J		0.4	0.12	0.34	J		0.4	0.12
Sulfate	mg/L	NA	120			3	0.8	50			3	0.8	7.3			3	0.8	33			3	0.8	0.86	J		3	0.8	0.86	J		3	0.8
Total Organic Carbon	mg/L	NA	0.76	J		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.2	J		3	0.5	1.2	J		3	0.5
MNA																																
Dissolved Mn	mg/L	NA	1.6					1.5					4.2					0.0					6.5					6.5				
Dissolved Fe^{2+}	mg/L	NA	0.02					0.30					0.24					0.0					0.78					0.78				

Table 5-4 SWMU 49 Detected Analytes in Twenty-Eighth Semiannual Groundwater Samples (Continued)

Sample ID			49MW02					50MW02					13MW2					13MW3					13MW4				
Date Collected			7/14/2023					7/13/2023					7/11/2023					7/11/23					7/11/2023				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																											
1,1,1-Trichloroethane	µg/L	NA	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38	1	U		1.2	0.38
1,1-Dichloroethane	µg/L	NA	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43	1	U		2	0.43
Carbon Tetrachloride	µg/L	5	1	U		1.2	0.37	1.1	J		1.2	0.37	1	U		1.2	0.37	**5.2**			1.2	0.37	1	U		1.2	0.37
Chloroform	µg/L	NA	1	U		1.4	0.46	1	U		1.4	0.46	1	U		1.4	0.46	0.54	J		1.4	0.46	1	U		1.4	0.46
cis-1,2-Dichloroethene	µg/L	NA	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41	1	U		1.3	0.41
Tetrachloroethene	µg/L	NA	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54	1	U		2	0.54
Trichloroethene	µg/L	5	1	U		1.2	0.39	1.3			1.2	0.39	1	U		1.2	0.39	0.89	J		1.2	0.39	0.95	J		1.2	0.39
Miscellaneous																											
Ethane	µg/L	NA	0.8	U		1	0.38	0.80	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38	0.8	U		1	0.38
Ethene	µg/L	NA	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59	1.2	U		1.4	0.59
Methane	µg/L	NA	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45	0.9	U		1	0.45
Chloride	mg/L	NA	1.5	J		3	1	6.8			3	1	2.5	J		3	1	4	J		3	1	3.6			3	1
Nitrate (as N)	mg/L	NA	0.35	J		0.4	0.12	2			0.4	0.12	0.32	J		0.4	0.12	1.7	J		0.4	0.12	0.32	J		0.4	0.12
Sulfate	mg/L	NA	13			3	0.8	69			3	0.8	41			3	0.8	99			3	0.8	57			3	0.8
Total Organic Carbon	mg/L	NA	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5
MNA																											
Dissolved Mn	mg/L	NA	1.30					0.90					1.0					0.5					1.5				
Dissolved Fe^{2+}	mg/L	NA	0.17					0.0					0.0					0.0					0.0				

Table 5-4 SWMU 49 Detected Analytes in Twenty-Eighth Semiannual Groundwater Samples (Continued)

Sample ID			49MW04					49TW04 (duplicate of 49MW04)				
Date Collected			7/11/2023					7/11/2023				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
1,1,1-Trichloroethane	µg/L	NA	1	U		1.2	0.38	1	U		1.2	0.38
1,1-Dichloroethane	µg/L	NA	1	U		2	0.43	1	U		2	0.43
Carbon Tetrachloride	µg/L	5	0.70	J		1.2	0.37	0.77	J		1.2	0.37
Chloroform	µg/L	NA	1	U		1.4	0.46	1	U		1.4	0.46
cis-1,2-Dichloroethene	µg/L	NA	1	U		1.3	0.41	1	U		1.3	0.41
Tetrachloroethene	µg/L	NA	1	U		2	0.54	1	U		2	0.54
Trichloroethene	µg/L	5	1	U		1.2	0.39	1	U		1.2	0.39
Ethane	µg/L	NA	0.8	U		1	0.38	0.8	U		1	0.38
Ethene	µg/L	NA	1.2	U		1.4	0.59	1.2	U		1.4	0.59
Methane	µg/L	NA	0.9	U		1	0.45	0.9	U		1	0.45
Chloride	mg/L	NA	6.4			3	1	6.4			3	1
Nitrate (as N)	mg/L	NA	0.37	J		0.4	0.12	0.4	J		0.4	0.12
Sulfate	mg/L	NA	67			3	0.8	63			3	0.8
Total Organic Carbon	mg/L	NA	1.5	U		3	0.5	1.5	U		3	0.5
MNA												
Dissolved Mn	mg/L	NA	1.0					1.0				
Dissolved Fe^{2+}	mg/L	NA	0.0					0.0				

Notes:
[1] Remedial goals developed in Draft SWMU 48/49 RFI Report (CB&I, 2014a).
Exceedances denoted by **bold font.**
µg/L = micrograms per liter (parts per billion)
Fe^{2+} = ferrous iron
ID = identification
LOD = limit of detection
LOQ = limit of quantitation
mg/L = milligrams per liter (parts per million)
Mn = manganese
MNA = monitored natural attenuation
NA = not applicable; remedial goal not established for analyte at SWMU 49
RFI = RCRA Facility Investigation
SWMU = Solid Waste Management Unit
RCRA = Resource Conservation and Recovery Act
VOC = volatile organic compound
Lab Q = laboratory data qualifiers
Val Q = validation data qualifiers
J = Estimated value.
U = Analyte concentration was not above the detection level.

Table 5-5 Summary of Samples and Analyses

Sampling Event ID	Data Packages	Matrix	TCL VOCs	Methane Ethane Ethene	Chloride Nitrate Sulfate	Metals [1]	TOC	COD pH
January 2023	175065, 175102, and 175116	GW	X	X	X	X	X	X
July 2023	178914, 178962, 179025, and 179047	GW	X	X	X	X	X	X

Notes:
[1] Ferrous iron and manganese were analyzed for groundwater samples, whereas total metals were only analyzed for IDW samples.
COD = chemical oxygen demand
GW = groundwater
ID = identification
IDW = investigation-derived waste
pH = corrosivity/hydrogen ion concentration
TCL = target compound list
TOC = total organic carbon
VOC = volatile organic compound

Table 5-6 Analytical Methods

Analysis	Analytes	Method
VOCs	Numerous	USEPA SW-846 Method 8260C
Dissolved Gases	Methane Ethane Ethene	USEPA SW-846 Method 8015/RSK-175
Anions	Chloride Nitrate Sulfate	USEPA SW-846 Method 9056A
TOC	TOC	USEPA SW-846 Method 9060A

Notes:
TOC = total organic carbon
USEPA = U.S. Environmental Protection Agency
VOC = volatile organic compound

Table 5-7 Typical Data Qualifiers

Qualifier	Description
R	Rejected: The result is rejected due to deficiencies in the analytical system or the inability to meet quality control (QC) criteria.
M	Matrix effect: The concentration is estimated due to a matrix effect.
J	Estimated: The analyte was positively identified, but the quantitation is an estimate due to discrepancies in meeting certain analyte-specific QC criteria.
J+	Estimated: The analyte was positively identified, but the quantitation is an estimate, possibly biased high, due to discrepancies in meeting certain analyte-specific QC criteria.
J-	Estimated: The analyte was positively identified, but the quantitation is an estimate, possibly biased low, due to discrepancies in meeting certain analyte-specific QC criteria.
B	Blank. The analyte was detected in an associated blank.
U	Undetected: The analyte was analyzed for but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific QC criteria.

Table 5-8 Holding Time Exceedances

Sampling Event	Analysis[1]	Analytes	Result	Samples	Qualifiers
January 2023	Anions	Nitrate	2.1, 0.19, 0.79	13MW3, 13MW4, 13MW5	J
July 2023	Anions	Nitrate	----	All	J

Notes:

[1] The holding time for pH analysis is only minutes; therefore, this is expected. The data are still usable for their intended purpose.
J = estimated

Table 5-9 Field Duplicate Precision Exceedances

Sampling Event	Analyte	Flag	RPD
January 2023	No QC limit exceedances		
July 2023	Sulfate	J	25

Notes:
J = estimated
QC = quality control
RPD = relative percent difference

Table 5-10 MS/MSD RPD Exceedances

Sampling Event	Location (Analyte)	Flag	RPD
January 2023	No exceedances		
July 2023	No exceedances		

Notes:
RPD = relative percent difference

Table 5-11 LCS Recovery Exceedances

Sampling Event	Analyte	Flag	Recovery
January 2023	All LCS recovery criteria were met.		
July 2023	All LCS recovery criteria were met.		

Notes:
LCS = laboratory control sample

Table 5-12 MS/MSD Recovery Exceedances

Sampling Event	Sample ID/Analyte	Recovery	Parent Flag
January 2023	No exceedances		
July 2023	13MW4/Sulfate 48MW6/Sulfate 50MW02/Sulfate 48MW2/Sulfate	Low Low Low Low	All “M” Flags

Notes:
ID = identification
M = Matrix effect: The concentration is estimated due to a matrix effect.

Table 5-13 Serial Dilution

Sampling Event	Sample ID/Analyte	Recovery	Parent Flag
January 2023	All serial dilution control criteria were met.		
July 2023	All serial dilution control criteria were met.		

Notes:
ID = identification

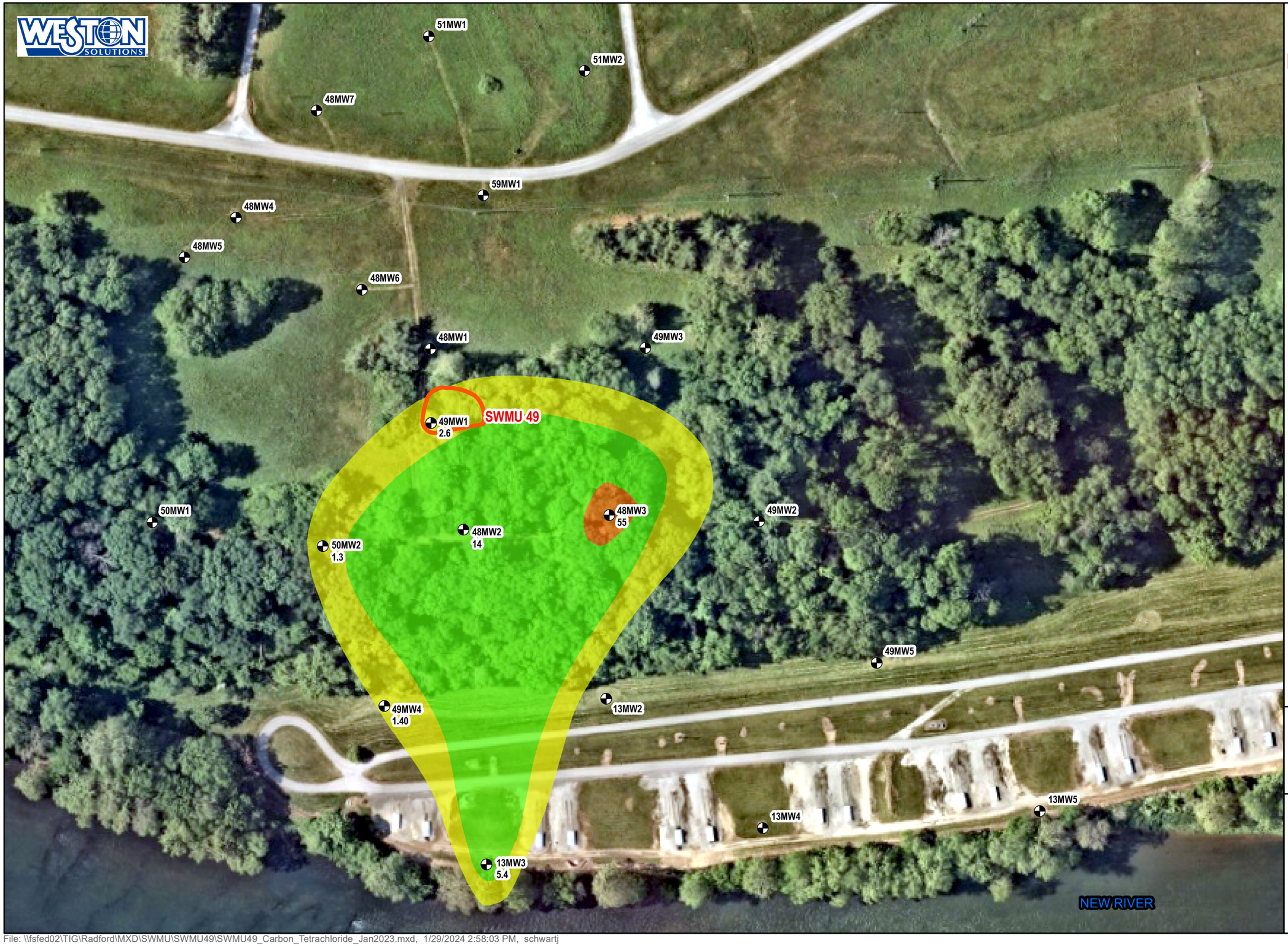
Table 5-14 Calibration Exceedances

Sampling Event	Analysis	Analytes	Result	Samples	Qualifiers
January 2023	VOCs	Trichlorofluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, methylcyclohexane	CCV – high recovery	Lab standards (applies to all samples)	UJ
July 2023	VOCs	Dichlorodifluoromethane	CCV – high recovery	Lab standards (applies to all samples)	UJ

Notes:
UJ = non-detected estimated
CCV = continuing calibration verification
VOC = volatile organic compound

Table 5-15 Blank Flags

Sampling Event	Type of Blank	Analyte	Samples Qualified	Flag
January 2023	No blank flags			
July 2023	No blank flags			



Legend

- Well
- SWMU 49 Boundary

Carbon Tetrachloride Isopleths (µg/L)

- 1
- 5
- 50

Aerial Source:
Near Map Imagery, June 2023

N

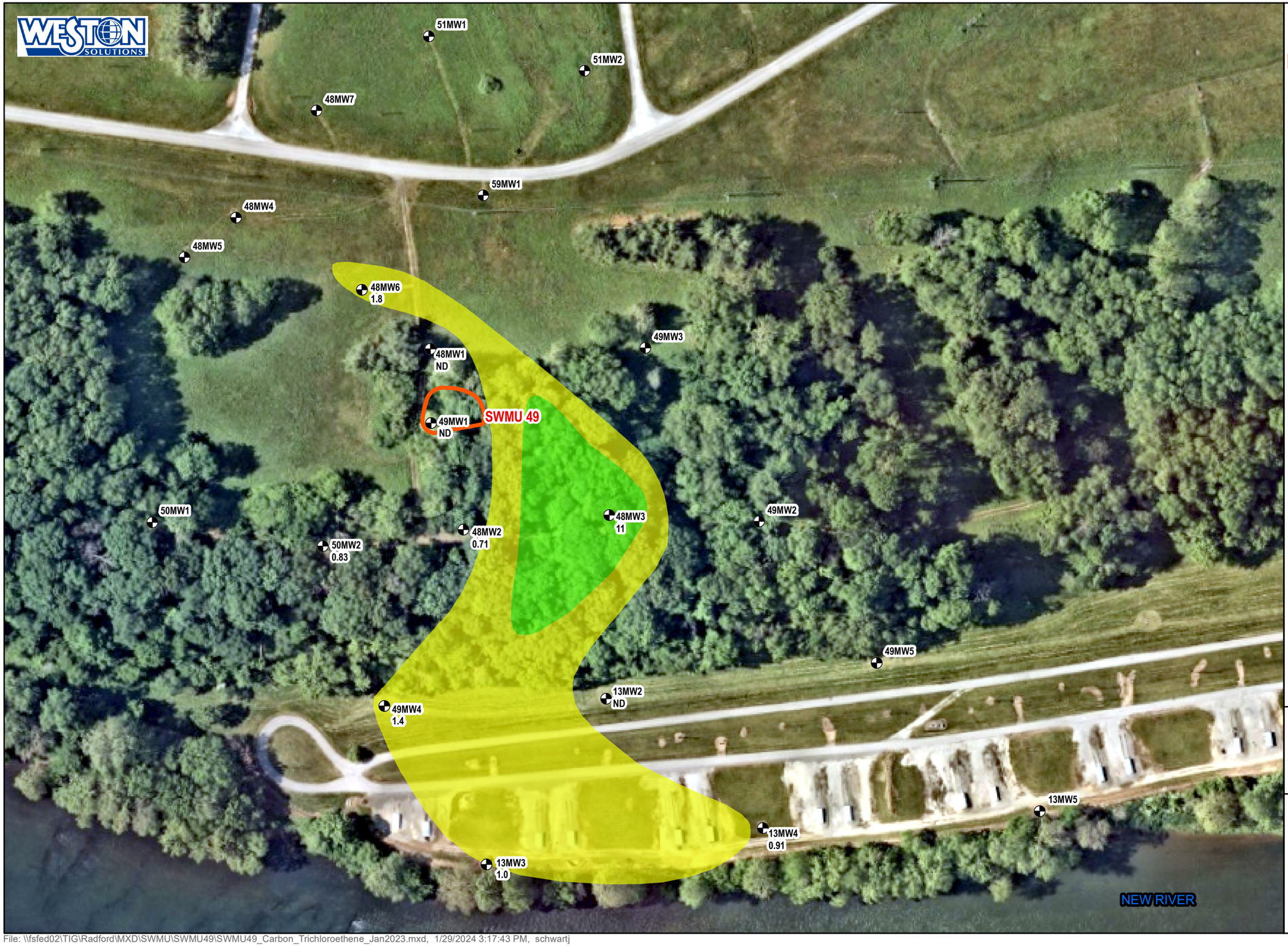
0 50 100 200 Feet

Prepared By:

Baltimore District

FIGURE 5-1
SWMU 49 JANUARY 2023
CARBON TETRACHLORIDE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Tetrachloride_Jan2023.mxd, 1/29/2024 2:58:03 PM, schwartj



Legend

- Well
- SWMU 49 Boundary

Trichloroethene Isopleths (µg/L)

- 1
- 5

Aerial Source:
Near Map Imagery, June 2023

N

0 50 100 200 Feet

Prepared By:

Baltimore District

FIGURE 5-2
SWMU 49 JANUARY 2023
TRICHLOROETHENE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Trichloroethene_Jan2023.mxd, 1/29/2024 3:17:43 PM, schwartj

Legend

- Well
- SWMU 49 Boundary

Carbon Tetrachloride Isopleths (µg/L)

- 1
- 5
- 50

Aerial Source:
Near Map Imagery, June 2023

N

0 50 100 200 Feet

Prepared By:

Baltimore District

FIGURE 5-3
SWMU 49 JULY 2023
CARBON TETRACHLORIDE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Tetrachloride_Jul2023.mxd, 1/29/2024 4:21:55 PM, schwartj

Legend

- Well
- SWMU 49 Boundary

Trichloroethene Isopleths (µg/L)

- 1
- 5
- 10

Aerial Source:
Near Map Imagery, June 2023

N

0 50 100 200 Feet

Prepared By:

Baltimore District

FIGURE 5-4
SWMU 49 JULY 2023
TRICHLOROETHENE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Trichloroethene_Jul2023.mxd, 1/29/2024 4:38:19 PM, schwartj

Figure 5-5 SWMU 49 Twenty-Seventh Event CT and TCE Concentrations

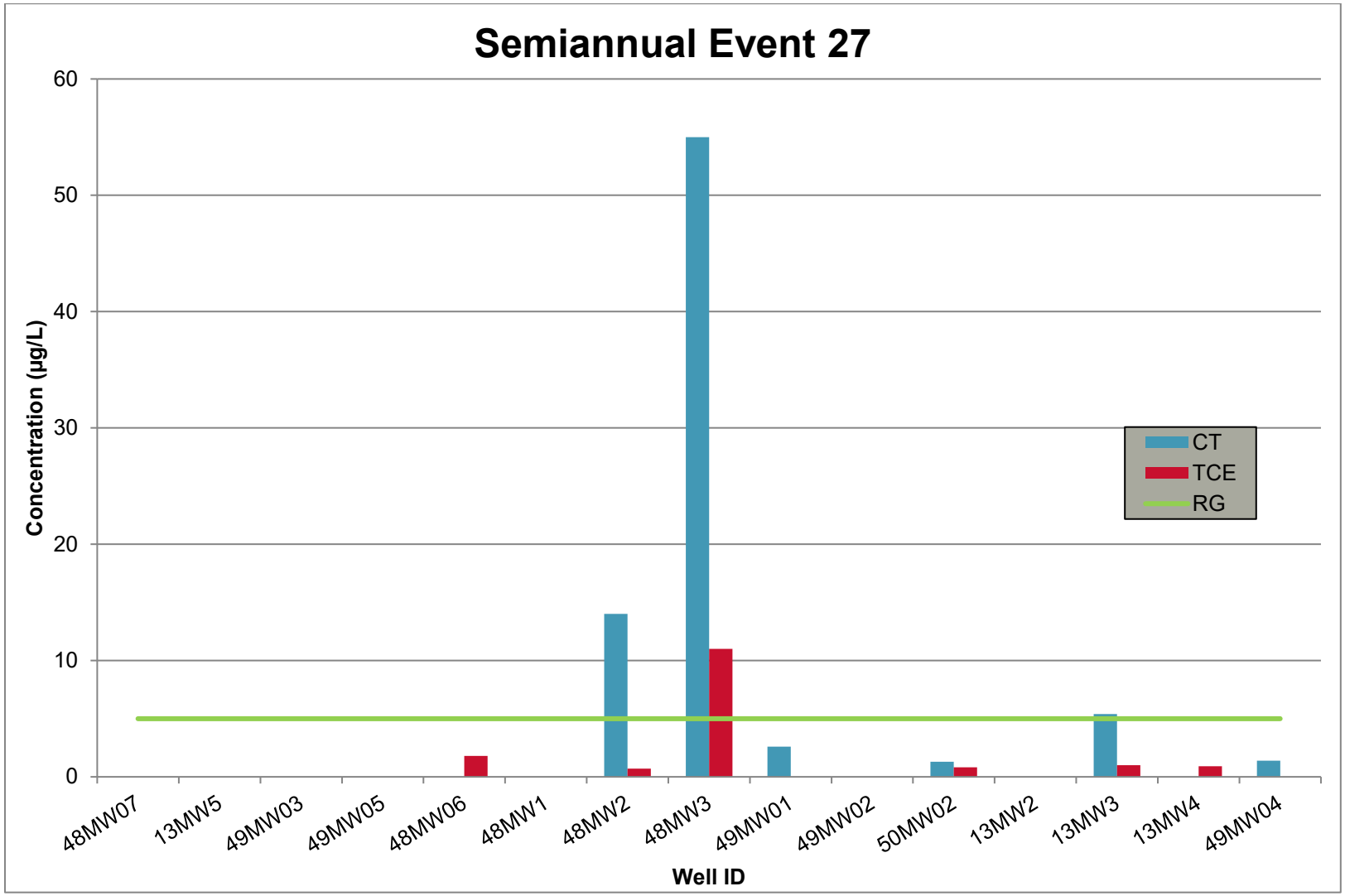


Figure 5-6 SWMU 49 Twenty-Eighth Event CT and TCE Concentrations

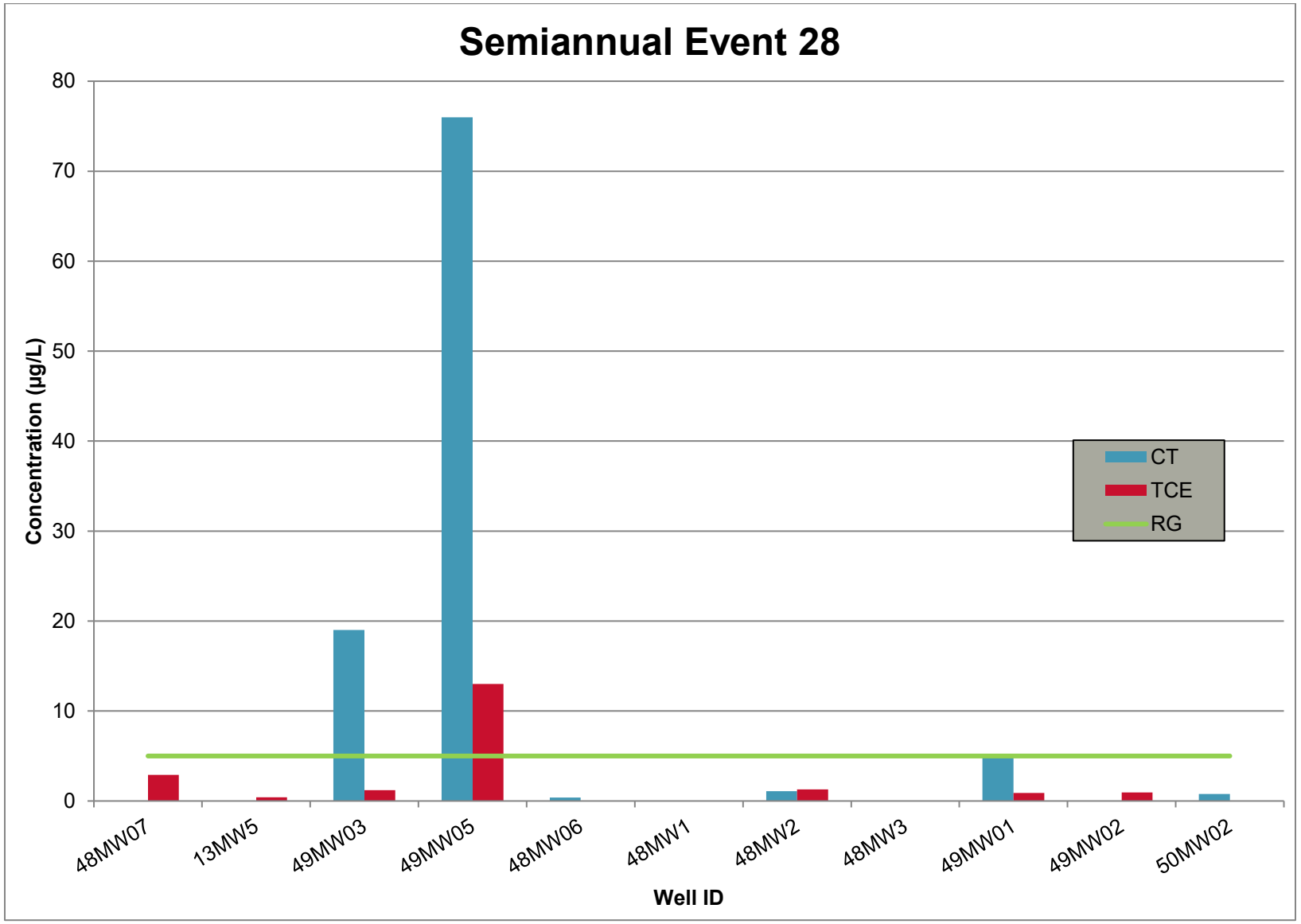
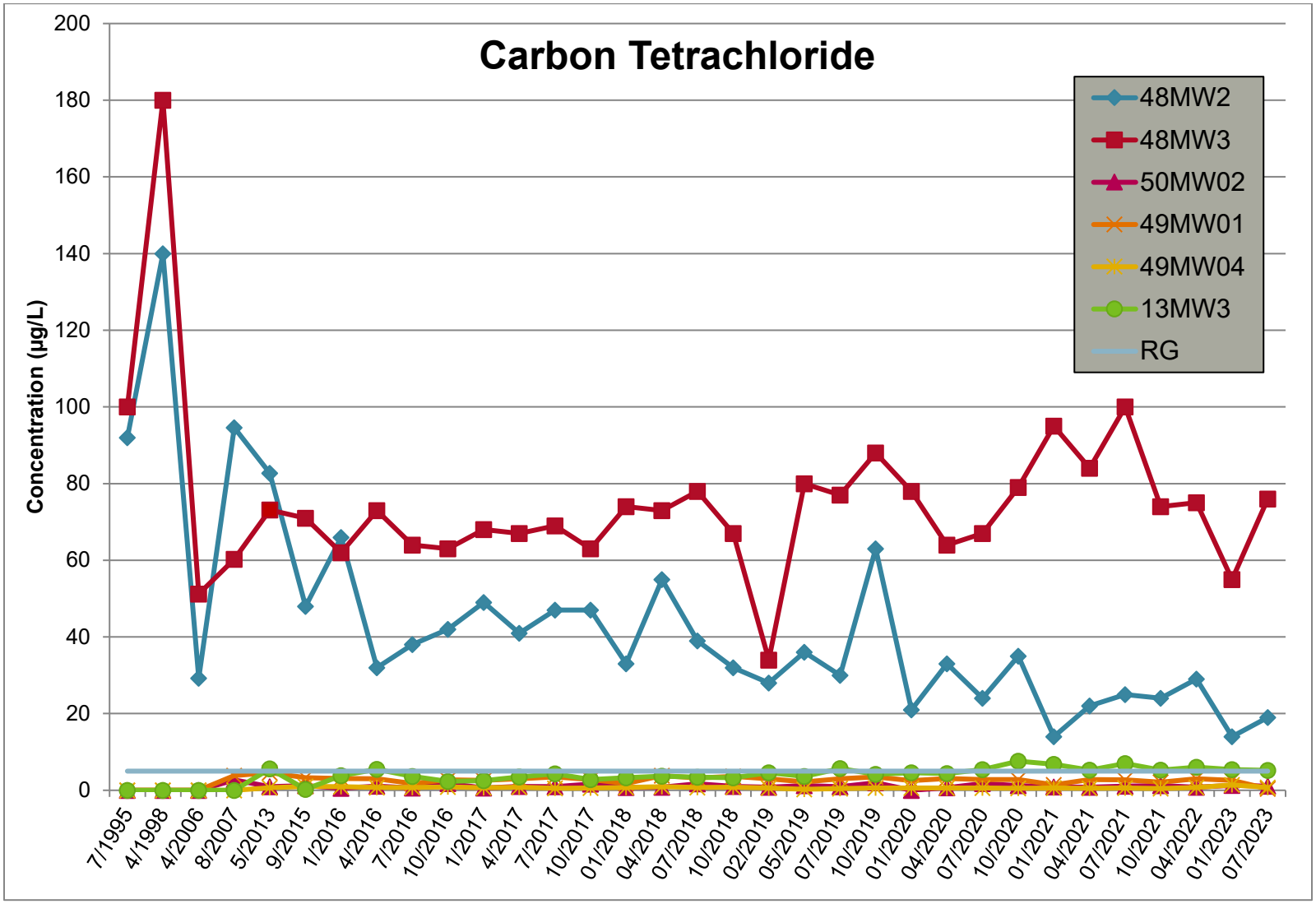
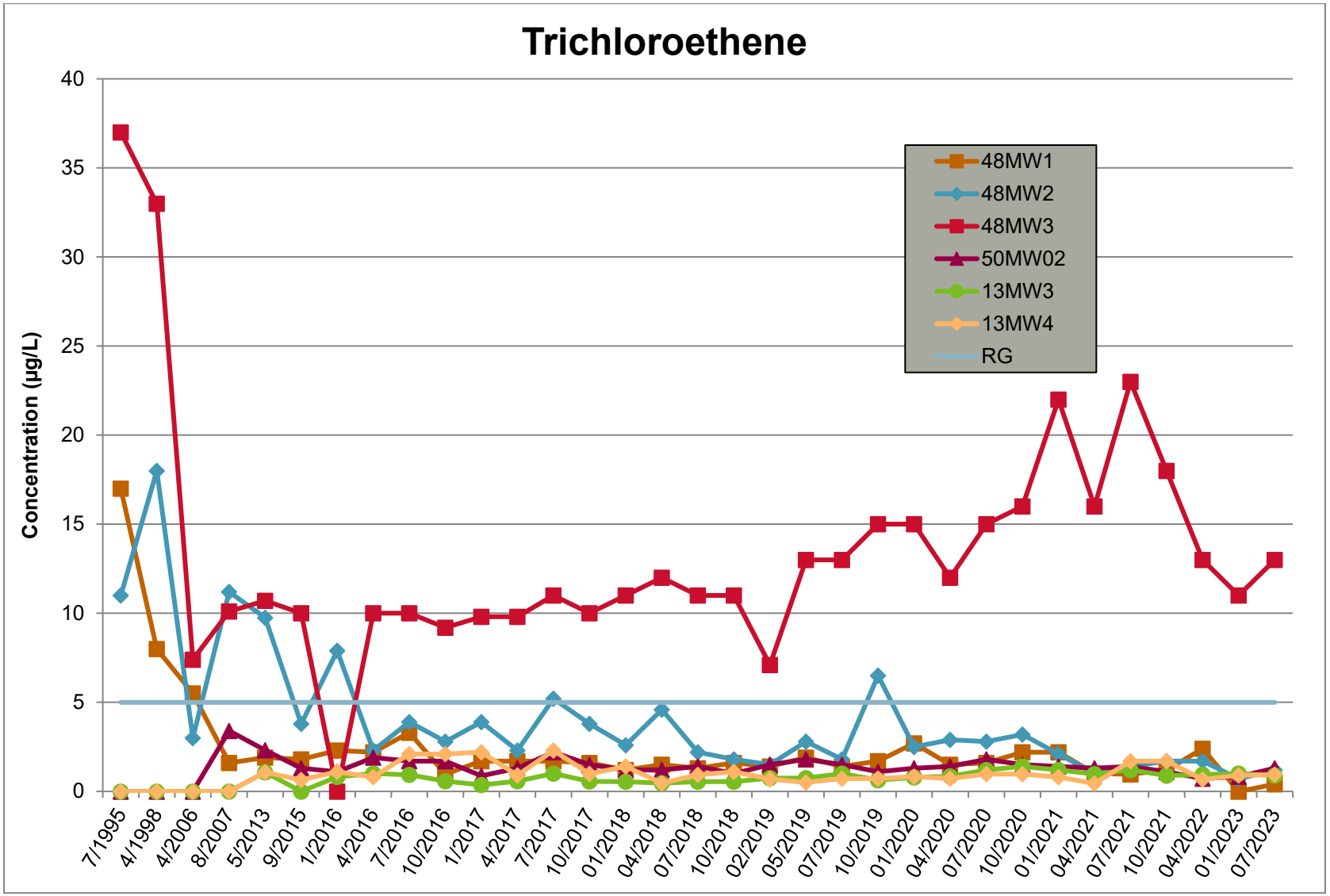


Figure 5-7 SWMU 49 CT Concentration Trends



Note: In order to fit all data on one page, x-axis time intervals do not reflect actual period of time between events.

Figure 5-8 SWMU 49 TCE Concentration Trends



Note: In order to fit all data on one page, x-axis time intervals do not reflect actual period of time between events.

6. MNA EVALUATION OF SWMU 49

This section presents and summarizes the results for the Year Eight MNA sampling. Eleven monitoring wells were sampled in the SWMU 49 study area for two semiannual events (January 2023 and July 2023), whereas four wells were sampled on an annual basis (January 2023 event) during the Year Eight MNA monitoring. Sample results were evaluated to determine whether MNA is continuing to occur at the site.

Consistent with the TCL VOC results from the sampling event in May 2013 and the baseline sampling conducted in January 2015, the highest concentrations of CT were observed in monitoring wells 48MW2 and 48MW3, where the center of the plume is located. Exceedances of the RG for CT were also noted at monitoring well 13MW3 in both events during Year Eight. CT concentrations have hovered around the RG since 2013.

TCE concentrations detected at monitoring well 48MW2, where historically high concentrations had been detected, were below the RG of 5 µg/L in both events. During the Year Eight sampling year, all concentrations of TCE at monitoring well 48MW2 were below the RG of 5 µg/L. Conversely, TCE concentrations in 48MW3 were above the RG in both events of Year Eight.

Based on the Year Eight MNA results, the CT and TCE plumes changed only slightly from sampling event to sampling event (seasonally) (**Figures 5-1** through **5-4**). There were modest changes in the two events with a moderate decrease of TCE at monitoring well 48MW3 in Year Eight from Year Seven. In general, the CT and TCE plumes were centered on monitoring wells 48MW3/48MW2 and 48MW06/48MW3, respectively. These trends continued throughout the year. The TCE trend continued since Year Two and generally remained undetected at monitoring well 13MW2, except for the nineteenth quarter (0.33 µg/L). In both events during the Year Eight MNA monitoring, detections of CT were found downgradient at monitoring well 13MW3 (5.4 µg/L and 5.2 µg/L), which is next to the New River. These concentrations were similar to the results from the Year Seven data (5.3 µg/L and 6.0 µg/L). As has been the recent trend, TCE was detected downgradient at monitoring wells 13MW3 and 13MW4 (at concentrations less than 1 µg/L which is well below the RG of 5 µg/L).

6.1 FIRST LINE OF EVIDENCE: OCCURRENCE OF CONTAMINANTS

The first line of evidence consists of evaluating contaminant and daughter product concentrations in monitoring wells over time. The VOC CT reduces to form chloroform, and TCE will be reduced to form cis-1,2-DCE, among other by-products. Both CT and TCE attenuate more favorably under anaerobic conditions. Fifteen monitoring wells were included in the MNA monitoring at SWMU 49, which targeted areas with CT and TCE contamination. Historical trends and the results of the Year Eight MNA semiannual groundwater sampling are discussed below, and the CT and TCE data are provided in **Table 6-1**.

6.1.1 Carbon Tetrachloride

There is moderate correlation of chloroform to CT concentrations for Year Eight monitoring periods. Based on the data, three wells (48MW2, 48MW3, and 13MW3) had detected concentrations of CT and chloroform while three monitoring wells (49MW01, 49MW04, and 50MW02) had detected concentrations of CT but no chloroform detections. Based on available data, the presence of chloroform suggests the degradation of CT is occurring at SWMU 49. **Figures 6-1** through **6-4** provide correlation data from the Year Eight MNA sampling.

6.1.2 Trichloroethene

There is evidence that some correlation exists; however, in wells that contained the highest observed concentrations of TCE (48MW2 and 48MW3), cis-1,2-DCE went undetected in both semiannual events in Year Eight. For both events in Year Seven and Year Eight, MNA cis-1,2-DCE concentrations were above TCE concentrations in monitoring well 48MW06. Based on the available data, a strong correlation of TCE degradation to cis-1,2-DCE cannot yet be determined. **Figures 6-1** through **6-4** provide correlation data from the Year Eight MNA sampling.

6.1.3 Statistical Trends

Mann-Kendall tests were run using the USEPA software package ProUCL (USEPA, 2020). The Mann-Kendall graphs are included as **Appendix C**. Monitoring wells 48MW2 and 48MW3 both displayed high and low outliers for the CT and TCE concentration trends over the past 5 years. Time series plots were created with and without those initial and/or final sampling data points to compare how the concentration trends would be affected by the varying results.

At monitoring well 48MW2, both CT and TCE experienced decreasing trends, regardless of outlying results or concentration variability. This trend is comparable to all other well sampling during Year Seven, which also display decreasing trends for CT and TCE concentrations. At monitoring well 48MW3, CT has a slight decreasing trend with the initial outlier removed and a steeply decreasing trend with the outlier data from the initial sampling included. At monitoring well 48MW3, TCE has a slightly decreasing trend with all data. Overall, there is a decreasing trend for CT and TCE across the site except for monitoring well 13MW3 (CT and TCE), which is directly downgradient from the highest concentrations in the contaminant plume; therefore, there is CT and TCE migration from the center of the plume to this downgradient location with an overall increasing trend noted.

6.2 SECOND LINE OF EVIDENCE: GEOCHEMICAL CONDITIONS

Geochemical data are available for both semiannual groundwater monitoring events at SWMU 49. Field parameters (DO, ORP, pH, temperature, and specific conductivity) were collected for both events as part of the low-flow sampling procedures. Laboratory analysis for nitrate, sulfate, and TOC were conducted for both groundwater monitoring events at SWMU 49. These geochemical data are discussed regarding the potential for biodegradation in the groundwater at SWMU 49.

The degradation of CT primarily occurs under anaerobic conditions, either through denitrification, iron reduction, sulfate reduction, or methanogenesis. The environmental degradation of TCE primarily occurs under anaerobic conditions that facilitate reductive chlorination, whereas natural degradation under aerobic oxidizing conditions has been documented but is much less likely to occur. Historical trends and the results of the Year Eight MNA semiannual groundwater sampling are discussed below, and the data are provided in Section 4 tables.

Much of the discussion that follows uses the comparison values provided by USEPA in its *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* (USEPA, 1998).

6.2.1 Dissolved Oxygen

The preferred terminal electron acceptor during aerobic microbial respiration is oxygen, and DO is measured to determine whether the groundwater is under aerobic or anaerobic conditions.

Average DO values less than 1 mg/L are tolerable of anaerobic microbial activities. DO levels during the two semiannual monitoring events (January 2023 and July 2023) of Year Eight ranged between 0.80 mg/L and 12.99 mg/L for the January 2023 event and between 0.93 mg/L and 9.68 mg/L for the July 2023 event, indicating aerobic conditions were not generally present at the site.

6.2.2 Oxidation-Reduction Potential

ORP values indicate the groundwater's reductive potential and are used to confirm the DO measurements in groundwater. ORP values less than +50 mV typically correspond to mildly reducing, anaerobic conditions, whereas ORP values less than -200 mV correspond to highly reducing, anaerobic conditions.

ORP levels recorded during the Year Eight MNA sampling ranged from 32.2 mV to 230.9 mV for the January 2023 event and from 89.6 mV to 178.6 mV for the July 2023 event, indicating aerobic conditions were present at the site. Aerobic conditions remain most prevalent. Further, with a few minor exceptions, the ORP values and DO readings for both events showed a clear correlation whereby ORP values demonstrating aerobic conditions were confirmed with DO readings.

6.2.3 pH

The pH for optimum microbial activity ranges from 5 SU to 9 SU. Microbial activity may decrease at lower pH values. All pH measurements during Year Eight ranged between 7.05 SU and 8.59 SU, within this optimal pH range. In general, the pH environment at SWMU 49 is suitable for microbial activity.

6.2.4 Nitrate

Following oxygen, microorganisms preferentially use nitrate as a terminal electron acceptor. Depressed nitrate concentrations may indicate nitrate-reducing conditions that promote the degradation of CT forming breakdown by-products. Nitrate levels during Year Eight of MNA sampling were generally low (a calculated average of all measurements is less than 1 mg/L), with concentrations ranging from non-detect to 7.0 mg/L, very similar to Years One through Seven of MNA sampling. The highest levels of nitrate were observed at monitoring well 48MW3 with concentrations of 6.3 mg/L (January 2023 event) and 7.0 mg/L (July 2023 event).

6.2.5 Ferrous Iron

Ferric iron is reduced to soluble Fe^{2+} (ferrous iron) in the groundwater where iron-reducing bacteria facilitate activity. An increase in Fe^{2+} concentrations is indicative of iron-reducing conditions and can be used to determine the potential for contaminant precipitation or coprecipitation and for geochemical modeling. Biological reduction of CT is favored in iron-reducing conditions; therefore, elevated levels of Fe^{2+} are an indicator of favorable groundwater conditions. Fe^{2+} concentrations for all wells during Year Eight of MNA monitoring ranged between 0.0 mg/L (non-detect) and 0.98 mg/L for January 2023 and between 0.0 mg/L and 0.78 mg/L for July 2023, indicating that iron-reducing conditions remain low and were lower than Year Seven.

6.2.6 Sulfate

After DO and nitrate have been depleted in the microbiological treatment zone, sulfate may be used as a terminal electron acceptor for anaerobic biodegradation. This process is termed "sulfate reduction" and results in the production of sulfide. At higher concentrations, sulfate (and nitrate) may compete with the reductive pathway. Relative amounts of sulfate provide additional lines of evidence of reducing conditions in the aquifer and provide data on changing aquifer conditions. However, reductive dechlorination still occurs in plumes with high concentrations of sulfate (USEPA, 1998). Sulfate concentrations were measured in the groundwater during each of the Year Eight MNA sampling events and were found to range between 1.9 mg/L and 150 mg/L, very similar to the MNA sampling results from Years Two through Seven.

6.2.7 Total Organic Carbon

TOC concentrations greater than 20 mg/L are considered adequate to support microbial activity. For the Year Eight MNA monitoring, TOC concentrations ranged from 0.00 mg/L (non-detect) to 1.2 mg/L, suggesting a still unfavorable environment. TOC concentrations during the Year One MNA sampling ranged from 0.0 mg/L (non-detect) to 34 mg/L. TOC concentrations during the Year Two MNA sampling ranged from 0.0 mg/L (non-detect) to 6.0 mg/L, a notable decrease in TOC concentrations from Year One. TOC concentrations recorded during Year Three monitoring, however, increased from the Year Two high of 6.0 mg/L to 13 mg/L. TOC concentrations during Year Four ranged from 0.00 mg/L (non-detect) to 3.7 mg/L. TOC concentrations in Year Five ranged from 0.00 mg/L (non-detect) to 5.2 mg/L. TOC concentrations in Year Six ranged from

0.00 (non-detect) to 2.7 mg/L, whereas concentrations ranged from 0.00 mg/L (non-detect) to 6.1 mg/L for Year Seven.

6.2.8 Specific Conductivity

Specific conductivity is the indirect measure of the presence of dissolved solids such as chloride, nitrate, sulfate, and Fe, all degradation by-products. **Figure 6-5** provides a time series plot of CT and chloroform concentrations relative to specific conductivity readings for monitoring wells 48MW2 and 48MW3 for Years One through Eight. **Figure 6-6** provides a time series plot of TCE and cis-1,2-DCE concentrations relative to specific conductivity readings for monitoring wells 48MW2 and 48MW3 for Years One through Eight. As with MNA Years Two through Seven results, data suggest that TCE and CT contaminants are biodegrading, and more dissolved inorganic ions (such as chlorides, nitrates, sulfates, and Fe) are creating the electrical current witnessed in the specific conductivity readings. Data also suggest that organic compounds do not carry current and, therefore, have almost no conductivity (USACE, 1999). No direct trend in specific conductivity from Years One through Eight is evident.

Figures 6-7 and **6-8** provide time series plots of MNA indicators sulfate, nitrate, chloride, TOC, ethene, and methane in source monitoring wells 48MW2 and 48MW3 for Years One through Eight. Sulfate concentrations are trending slightly higher in monitoring well 48MW2 but had a large increase in monitoring well 48MW3 in Years Seven and Eight as compared to the previous 4 years. Nitrate concentrations remain relatively stable in both monitoring wells 48MW2 and 48MW3. Chloride concentrations in both monitoring wells appear to have had only minor fluctuations over time, whereas TOC concentrations continue to fluctuate slightly. Methane concentrations have shown wide fluctuations in monitoring well 48MW2 over the past 4 years.

Figure 6-9 provides a time series plot of water quality parameters (DO, Fe, and ORP) in monitoring wells 48MW2 and 48MW3 for Years One through Eight. The time series plot shows that the individual trends for DO, Fe, and ORP are relatively consistent in monitoring wells 48MW2 and 48MW3 except for one event in 2020 due to a large increase in DO in monitoring well 48MW2.

Monitoring wells 48MW3, 48MW06, and 50MW02 appear to carry more of the dissolved solids, with high conductivity readings ranging from 705 to 727 microsiemens per centimeter (µS/cm), 721 to 854 µS/cm, and 685 to 760 µS/cm, respectively. Biodegradation consumes sulfate and nitrate and produces alkalinity. Chloride is the ion that is formed during dechlorination that takes place in an anaerobic reduction zone. Chloride concentrations are fluctuating among all wells. Chloride concentrations are impacted by more aerobic conditions and would be increasing; however, chloride concentrations are generally stable. Nitrate concentrations appear to be stable at monitoring well 48MW2. Ethane and ethene went undetected in both events at monitoring well 48MW2.

Table 6-1 SWMU 49 CT and TCE Semiannual Concentrations

Parameter	Units	RG	January 2023 (Event 27)	July 2023 (Event 28)
13MW2				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	ND	ND
13MW3				
Carbon Tetrachloride	µg/L	5	**5.4**	**5.2**
Trichloroethene	µg/L	5	0.88	0.89
13MW4				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	0.91	0.95
13MW5				
Carbon Tetrachloride	µg/L	5	ND	A
Trichloroethene	µg/L	5	ND	A
48MW06				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	1.8	2.9
48MW07				
Carbon Tetrachloride	µg/L	5	ND	A
Trichloroethene	µg/L	5	ND	A
48MW1				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	ND	0.41
48MW2				
Carbon Tetrachloride	µg/L	5	**14**	**19**
Trichloroethene	µg/L	5	0.71	1.2
48MW3				
Carbon Tetrachloride	µg/L	5	**55 (dup)**	**76**
Trichloroethene	µg/L	5	**11 (dup)**	**13**
49MW01				
Carbon Tetrachloride	µg/L	5	2.6	0.38
Trichloroethene	µg/L	5	ND	ND
49MW02				
Carbon Tetrachloride	µg/L	5	Not sampled	ND
Trichloroethene	µg/L	5	Not sampled	ND
49MW03				
Carbon Tetrachloride	µg/L	5	ND	A
Trichloroethene	µg/L	5	ND	A
49MW04				
Carbon Tetrachloride	µg/L	5	0.50 J	0.77 (dup)
Trichloroethene	µg/L	5	ND	ND
49MW05				
Carbon Tetrachloride	µg/L	5	ND	A
Trichloroethene	µg/L	5	ND	A
50MW02				
Carbon Tetrachloride	µg/L	5	1.3	1.1
Trichloroethene	µg/L	5	0.83	1.3

Notes:
µg/L = micrograms per liter A = sampled annually ND = non-detect RG = remedial goal
bold values = above remedial goals

Figure 6-1 SWMU 49 Twenty-Seventh Event CT to Chloroform Correlation

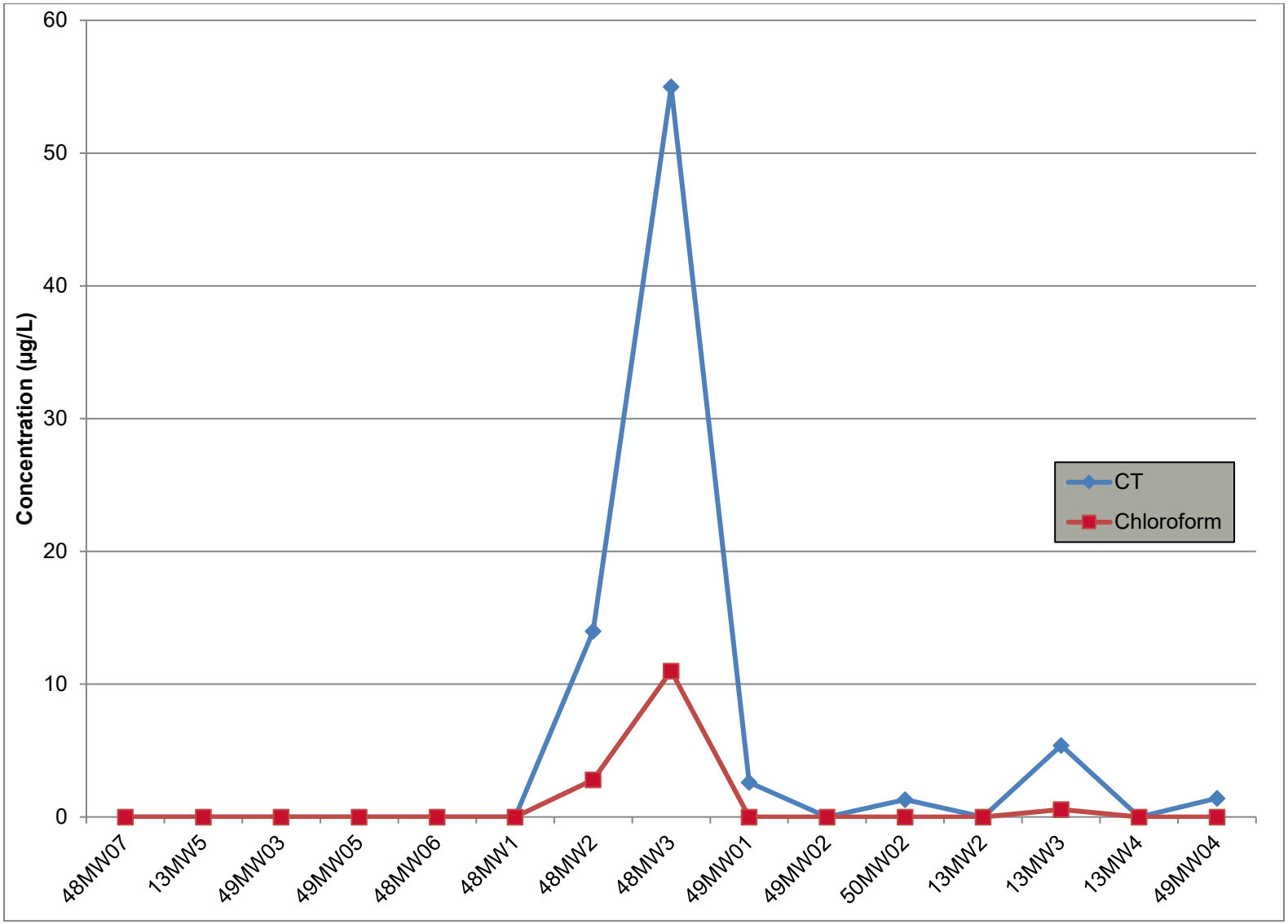


Figure 6-2 SWMU 49 Twenty-Seventh Event TCE to cis-1,2-DCE Correlation

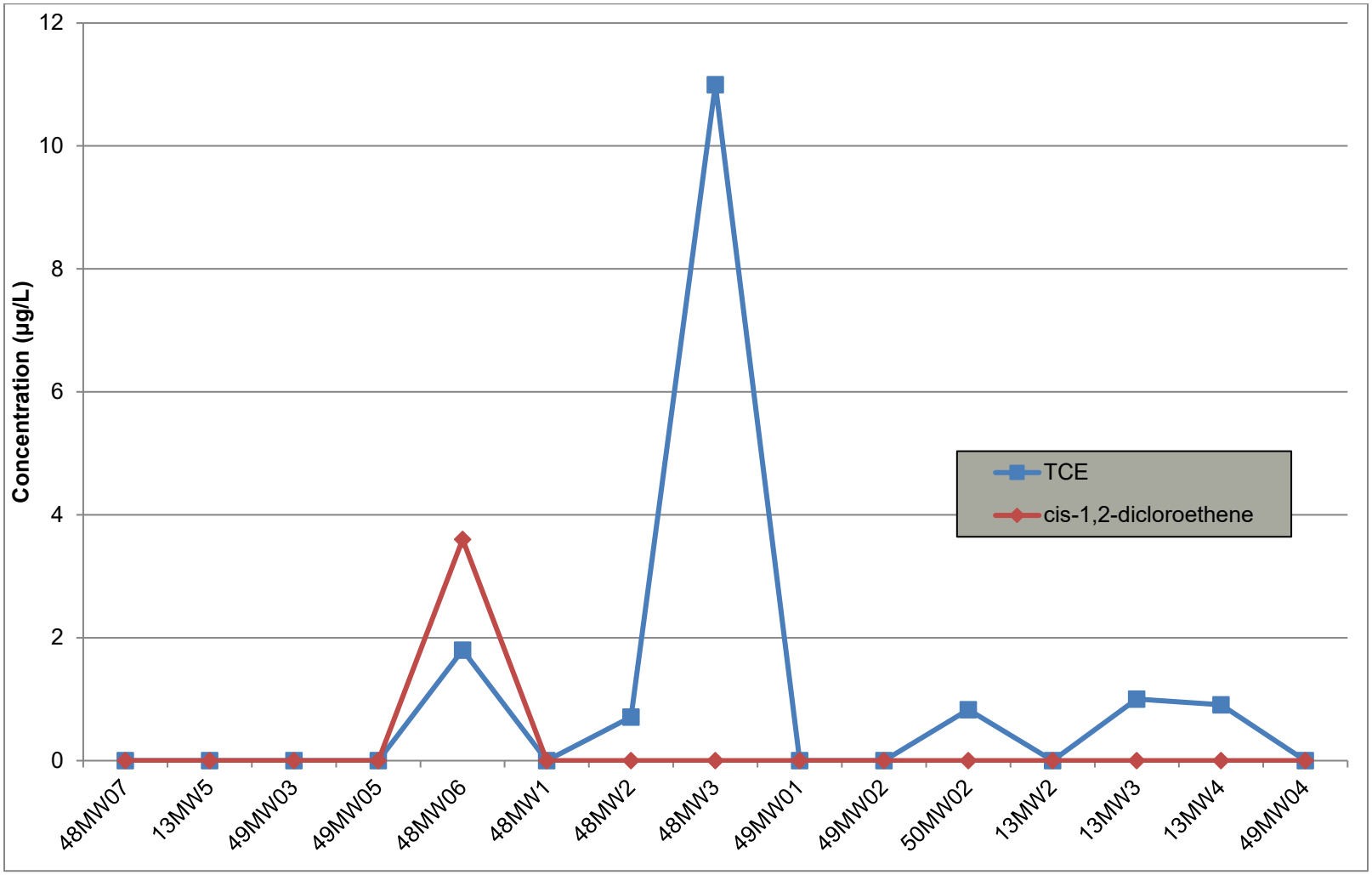


Figure 6-3 SWMU 49 Twenty-Eighth Event CT to Chloroform Correlation

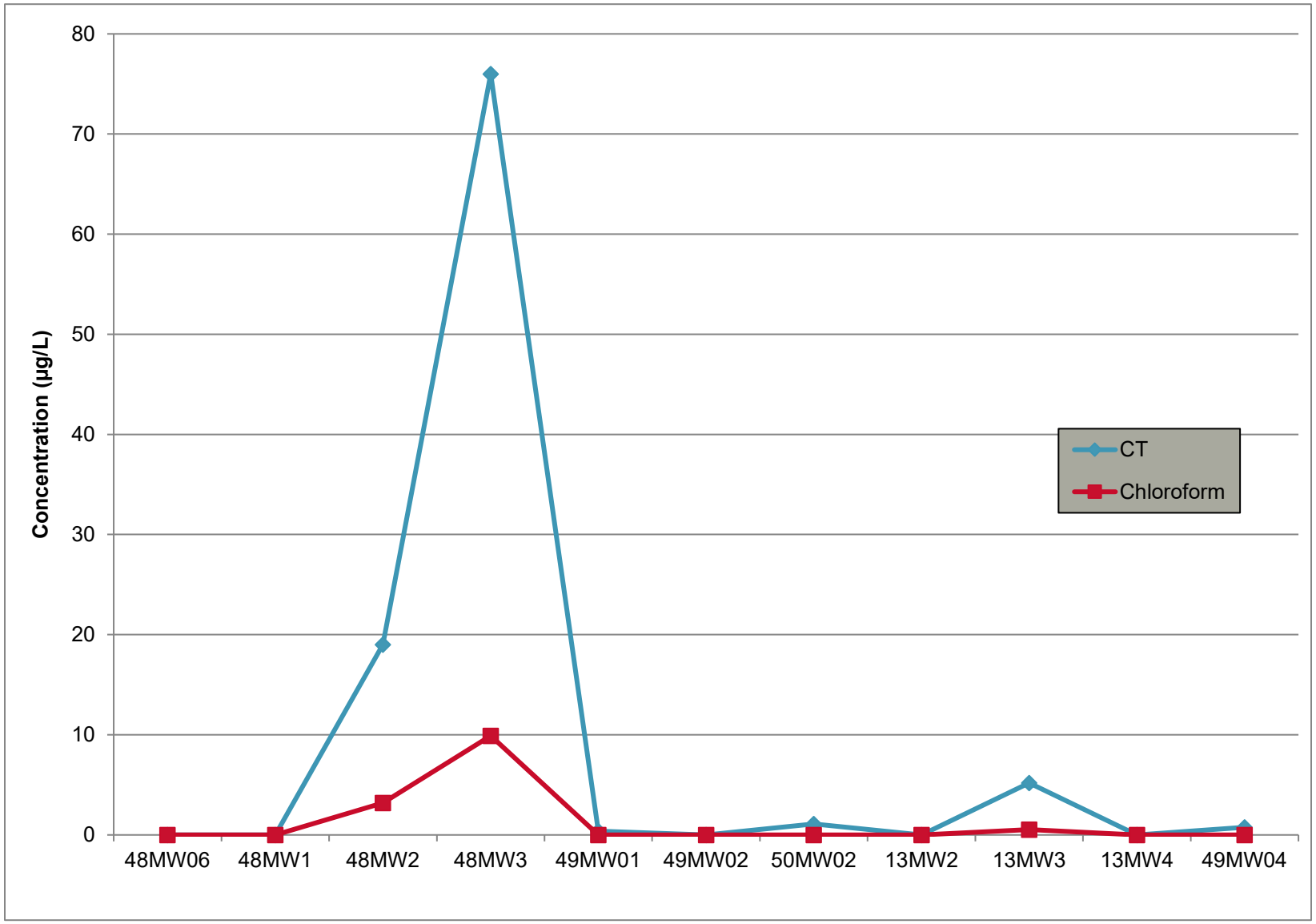


Figure 6-4 SWMU 49 Twenty-Eighth Event TCE to cis-1,2-DCE Correlation

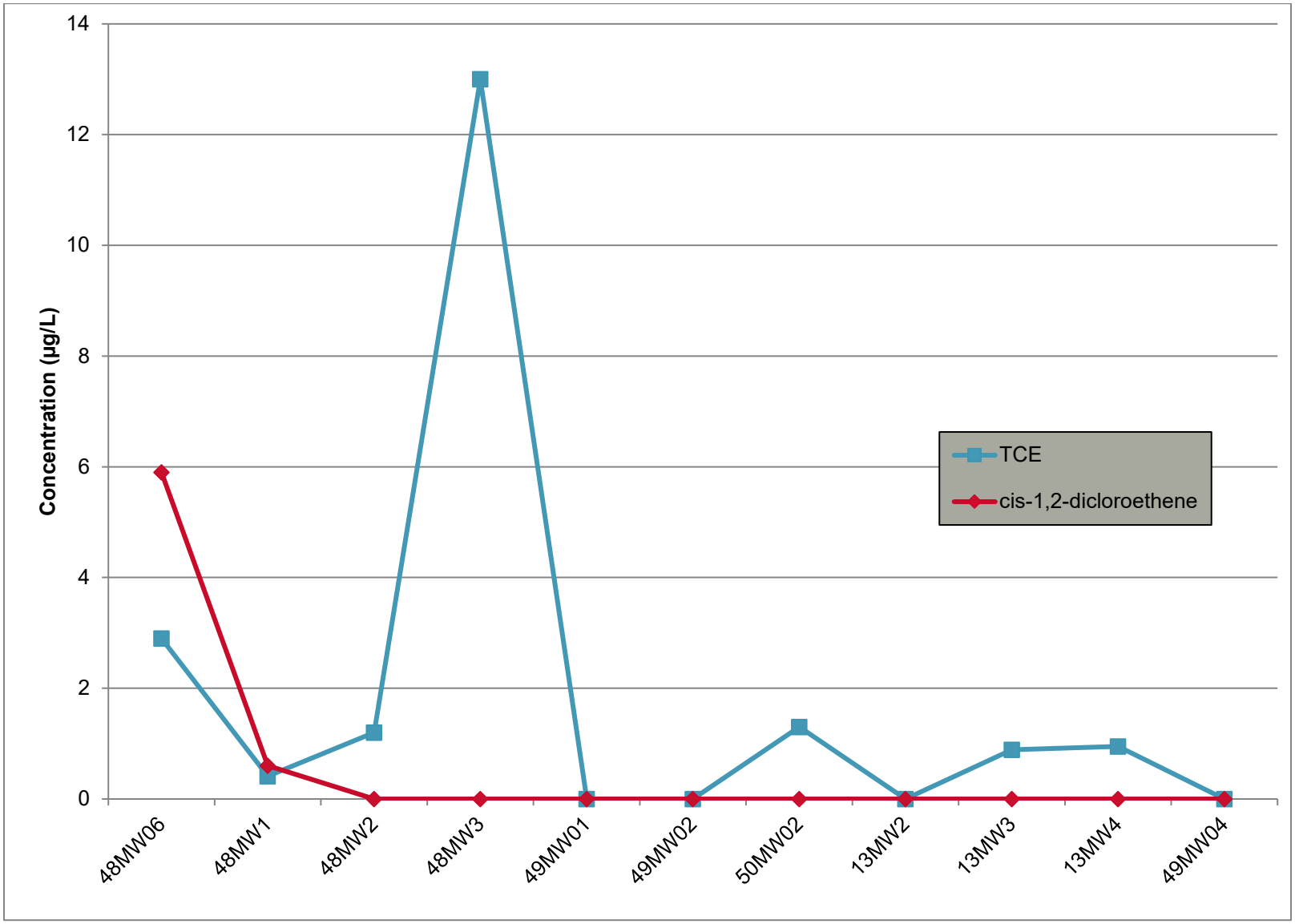


Figure 6-5 CT and Chloroform Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3

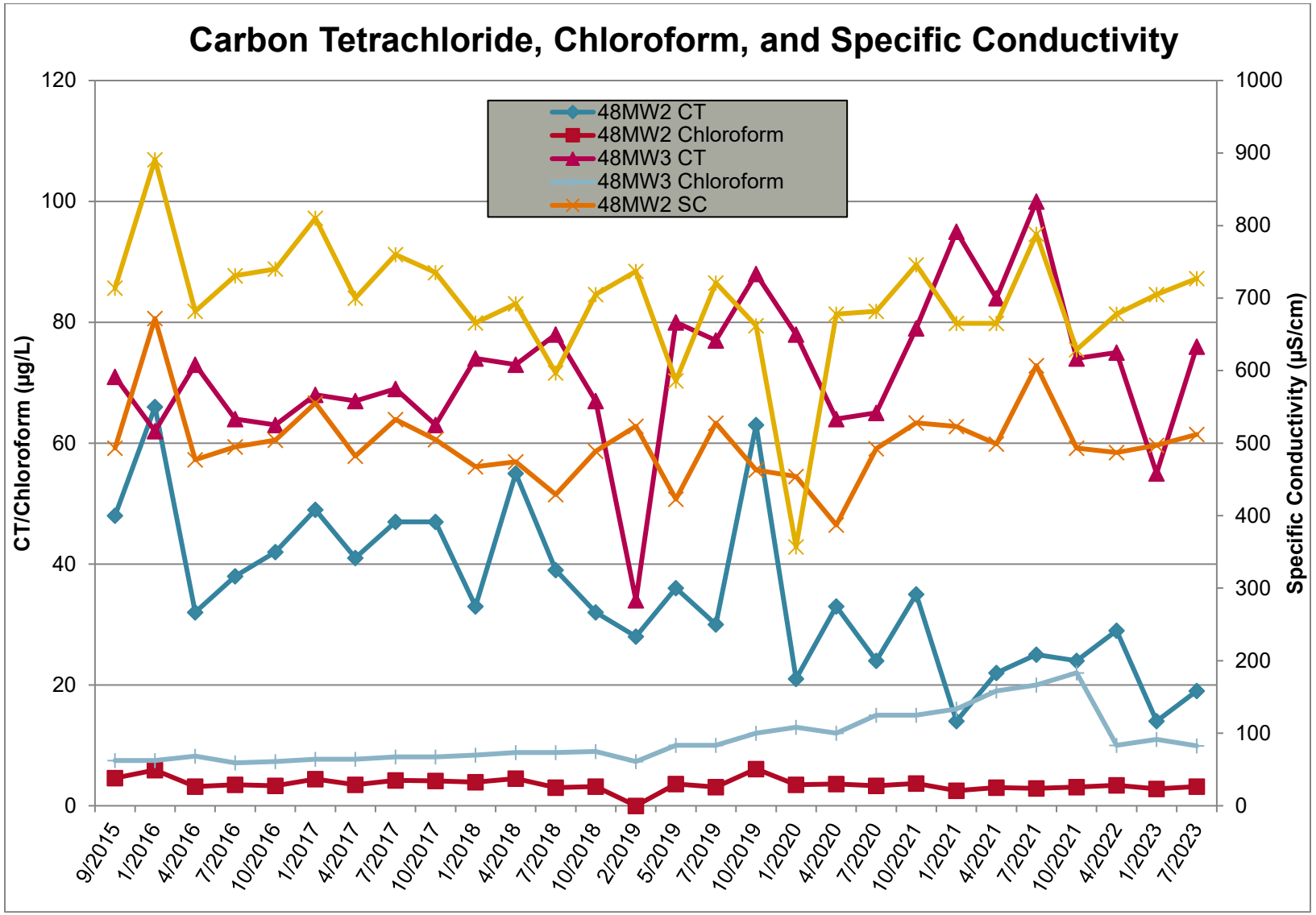


Figure 6-6 TCE and cis-1,2-DCE Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3

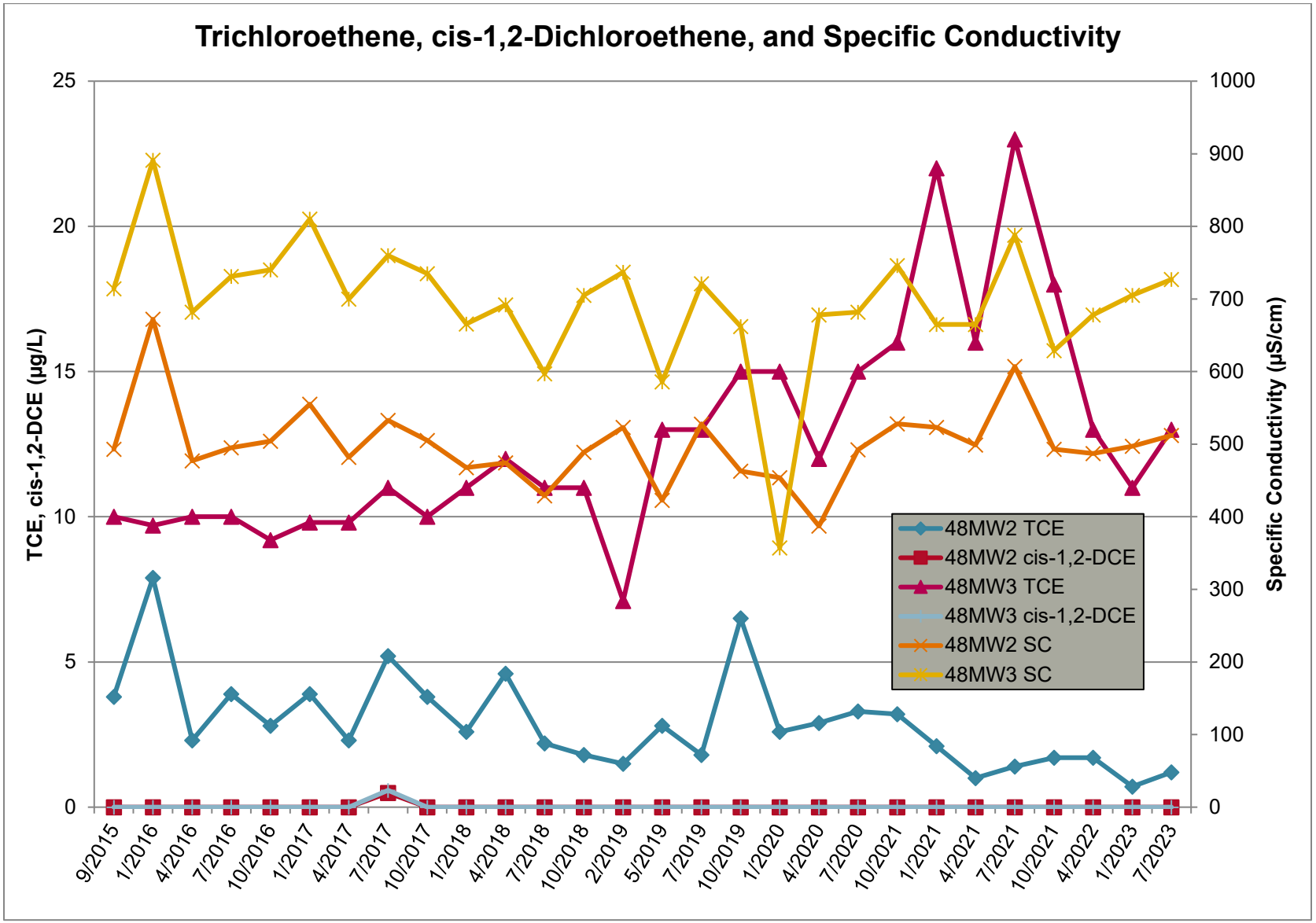


Figure 6-7 48MW2 MNA Indicators Years One, Two, Three, Four, Five, Six, Seven, and Eight

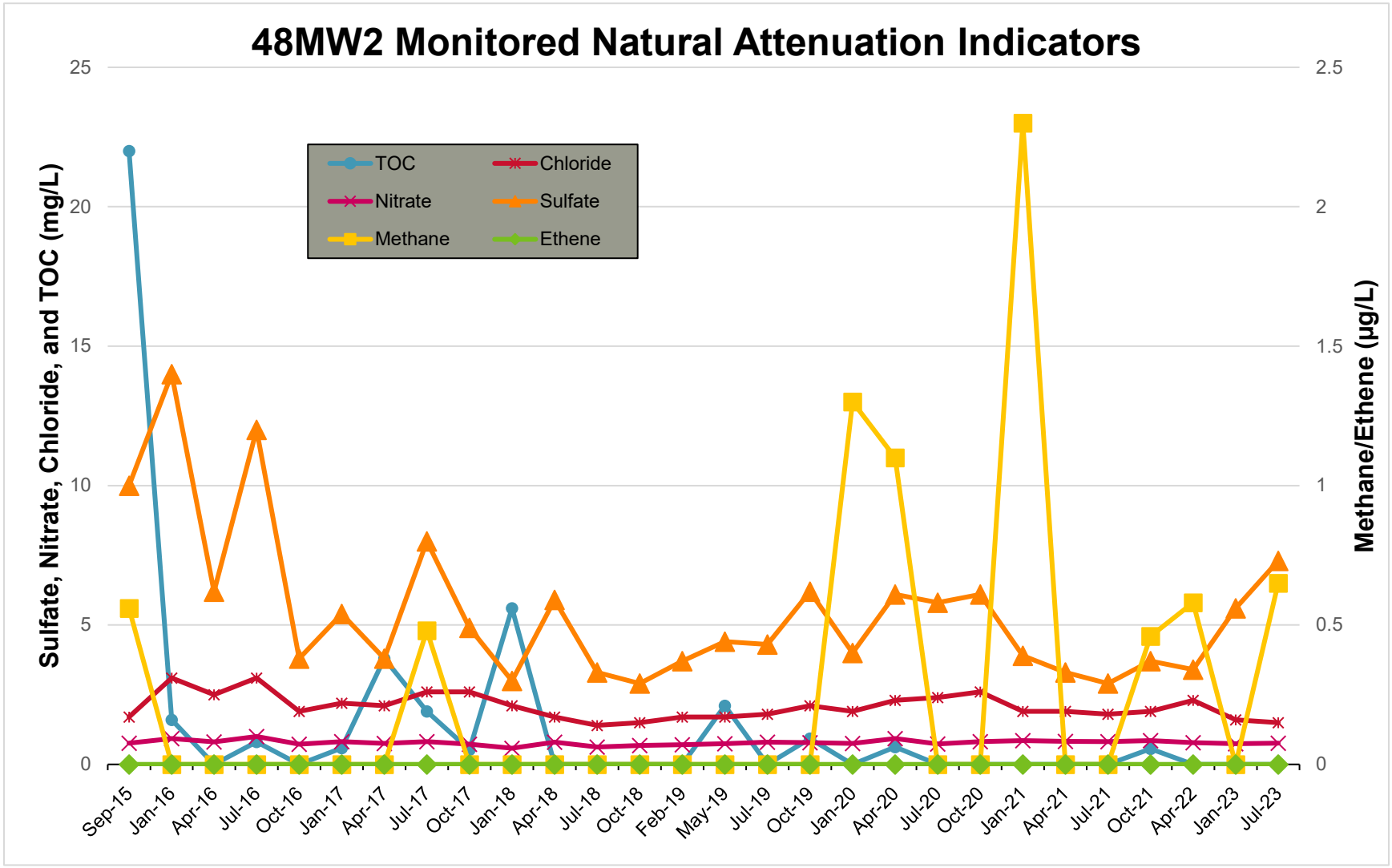


Figure 6-8 48MW3 MNA Indicators Years One, Two, Three, Four, Five, Six, Seven, and Eight

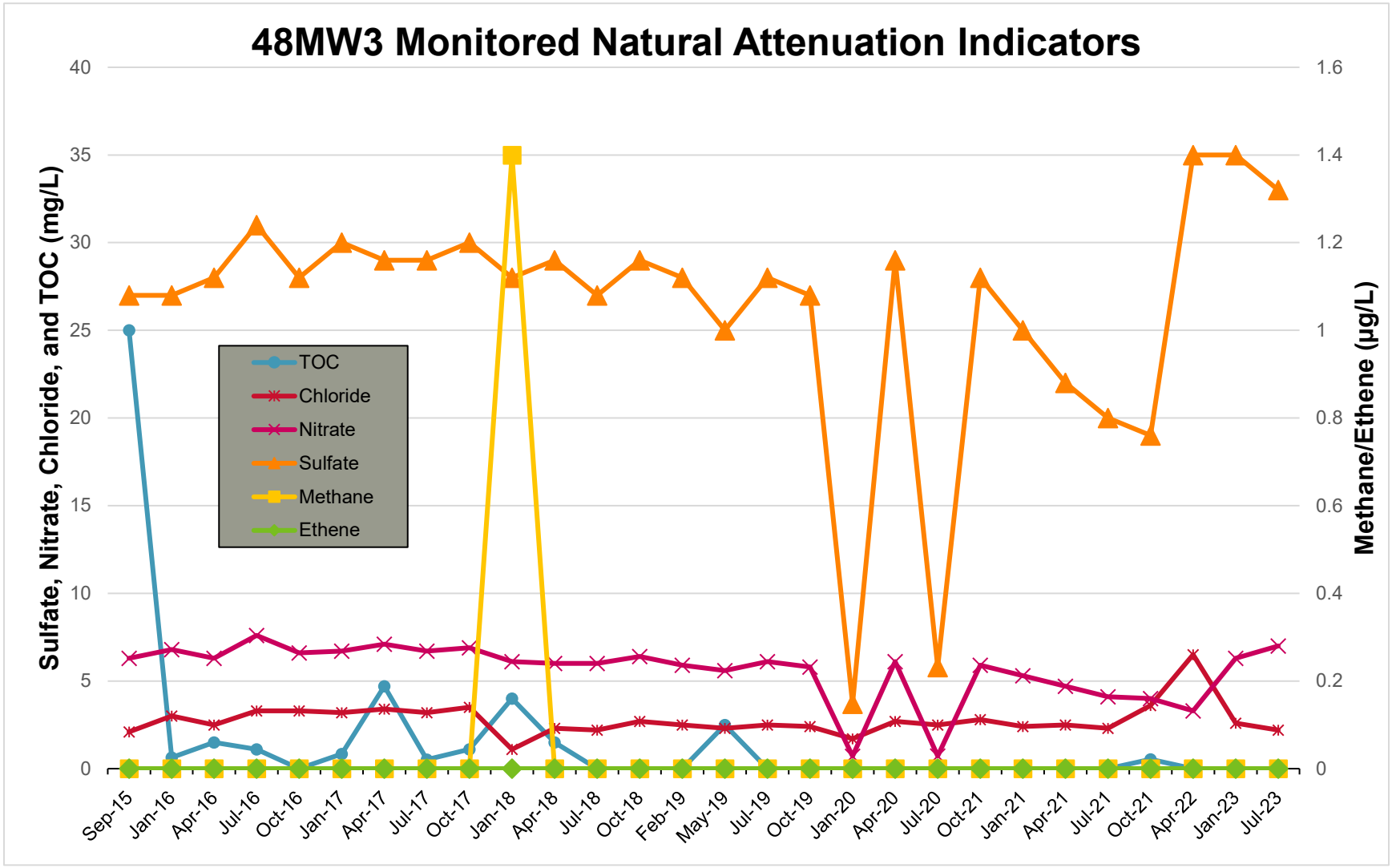
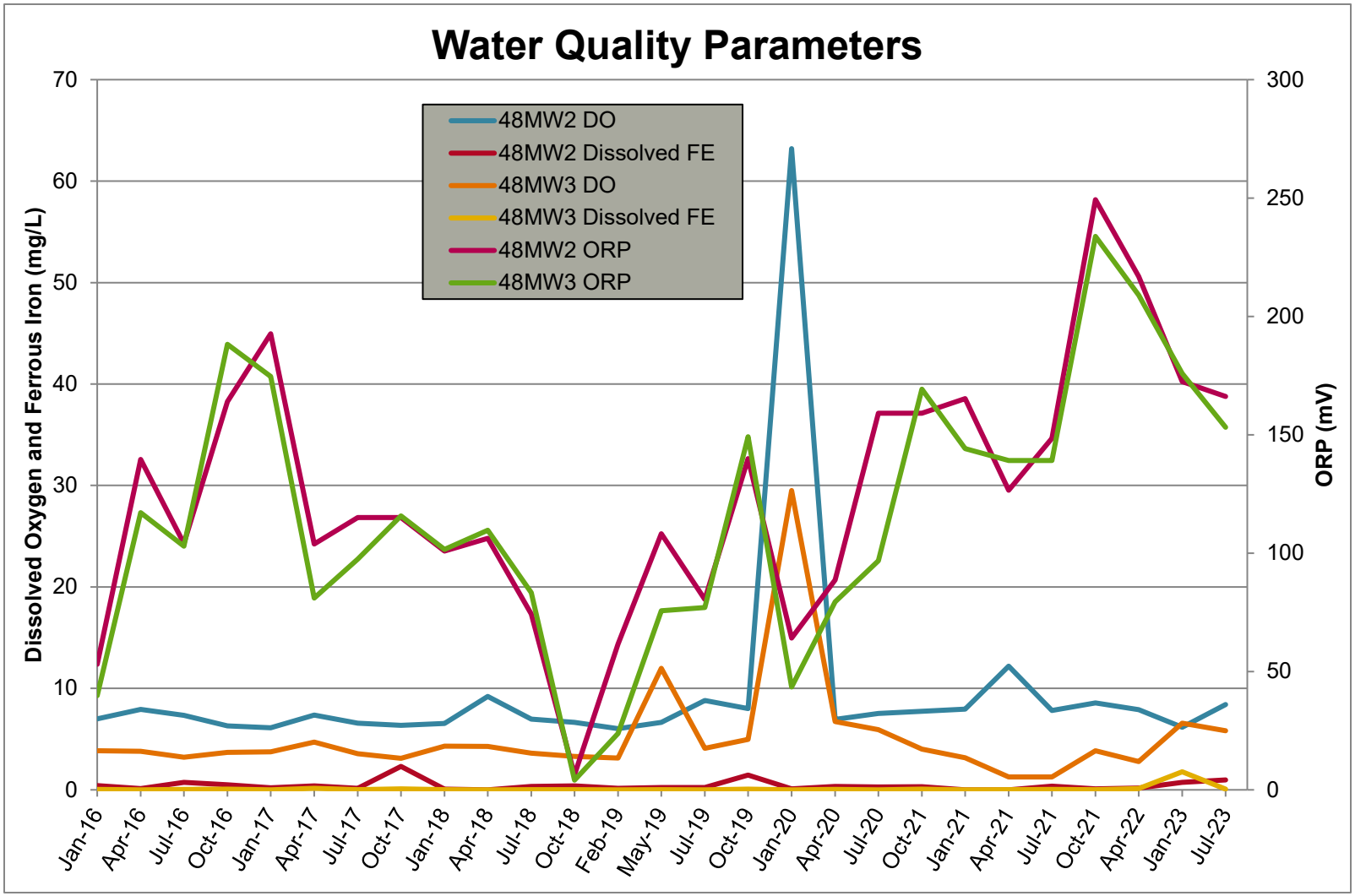


Figure 6-9 Water Quality Parameters 48MW2 and 48MW3 Years One, Two, Three, Four, Five, Six, Seven, and Eight



7. SUMMARY AND CONCLUSIONS

Eleven groundwater monitoring wells were sampled on a semiannual (January 2023 and July 2023 events) basis during the Year Eight MNA monitoring at SWMU 49, and four more were sampled on an annual basis (January 2023 event). The two semiannual events of sample data suggest that CT and TCE concentrations are increasing in some wells and decreasing in others, as has been shown historically. CT and TCE remain in exceedance of the RGs. The CT contaminant plume remains centered around monitoring wells 48MW2 and 48MW3, although detections and RG exceedances were observed downgradient along the New River at monitoring well 13MW3 during both events. TCE was detected in both events at monitoring wells 48MW06, 48MW2, 48MW3, and 50MW02, with both detections at 48MW3 above the RG. Further, TCE was detected in both events at monitoring wells 13MW3 and 13MW4, which are located downgradient and adjacent to the New River. Concentrations at these two downgradient wells were below the RG for TCE.

Based on the presence of chloroform in wells where CT was observed, it appears that VOC is continuing to degrade. The data suggest that MNA processes may still be decreasing mass; however, CT concentrations have been variable but generally stable for the past 3 years in monitoring wells 48MW3 and 48MW2. The data suggest that the correlation of cis-1,2-DCE to TCE is not as prevalent as an indicator of degradation. TCE concentrations increased in Year Eight compared to Year Seven in monitoring well 48MW3 and have been slightly variable but stable in other wells over the last 3 years.

In summary, the following conclusions and recommendations are made regarding the potential for MNA in contaminated groundwater at SWMU 49:

- The presence of chloroform suggests that degradation is occurring, which may be aiding in removing CT mass in the groundwater.
- The breakdown product, cis-1,2-DCE, is present at the site, although no substantive correlation continues to exist with TCE. TCE concentrations have increased at monitoring well 48MW3 from Year Seven to Year Eight but remained relatively stable at monitoring well 48MW2.
- Geochemical parameters also indicate that groundwater conditions are currently aerobic (based on DO and ORP levels) and that pH and TOC levels are adequate to promote microbial degradation. Overall, Fe^{2+}, nitrate, and sulfate concentrations do not appear to favor conditions to support degradation. However, conditions still appear to be trending toward a favorable environment for microbial degradation.

- Based on the MNA results presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015), other MNA processes including sorption, dilution, dispersion, and chemical stabilization are occurring in groundwater at the SWMU 49 study area. Conditions appear favorable that these processes will not significantly change or diminish and will continue to contribute to attenuation of the contaminants at SWMU 49.

- Because the groundwater flow pattern is consistent with the historical pattern, the monitoring well network appears adequate to monitor MNA at SWMU 49.

- Based on the consistency of the data, it is recommended that sampling continue on a semiannual basis at the 11 monitoring well locations and on an annual basis for 4 additional monitoring well locations.

8. REFERENCES

CB&I (CB&I Federal Services LLC). 2014a. *SWMU 48/49 RCRA Facility Investigation Report*. Radford Army Ammunition Plant, Virginia. Draft. January.

CB&I. 2014b. *SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan*. Radford Army Ammunition Plant, Radford, Virginia. Draft Final. October.

CB&I. 2015. *SWMU 49 Monitored Natural Attenuation Sampling Baseline Report.* Radford Army Ammunition Plant, Radford, Virginia. Draft. July.

Dames and Moore. 1992. *Final Draft VI Report for the Radford Army Ammunition Plant, Virginia*. Prepared for the U.S. Army Toxic and Hazardous Materials Agency.

ICF Kaiser. 1999. *RCRA Facility Investigation for SWMUs 31, 29, 48, 49, and 58.* Radford Army Ammunition Plant, Virginia.

IT (IT Corporation). 2001. *Facility-Wide Background Study*. Radford Army Ammunition Plant, Virginia. Final. Delivery Order No. 0008, Contract No. DACA31-94-D-0064.

ITRC (Interstate Technology and Regulatory Council) (In Situ Bioremediation Work Team). 1999. *Natural Attenuation of Chlorinated Solvents in Groundwater: Principles and Practices*. Interstate Technology and Regulatory Council, Washington, DC. September.

Parsons (Parsons Engineering Science, Inc.). 1996. *RCRA Facility Investigation for Solid Waste Management Units 17, 31, 48, and 54 at Radford Army Ammunition Plant, Virginia.* Prepared for U.S. Army Environmental Center.

Shaw (Shaw Environmental, Inc.). 2014. *SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan*. Radford Army Ammunition Plan, Virginia.

URS (URS Corporation). 2003. *Final Master Work Plan, Quality Assurance Plan, Health and Safety Plan*. Radford Army Ammunition Plant, Radford, Virginia. Prepared for the U.S. Army Corps of Engineers, Baltimore District. August.

USACE (U.S. Army Corps of Engineers). 1999. *Monitored Natural Attenuation of Explosives in Groundwater – Environmental Security Technology Certification Program Completion Report.* Technical Report EL-99-7. By Judith C. Pennington, Mansour Zakikhani, Danny W. Harrelson. March.

U.S. Army Toxic and Hazardous Materials Agency. 1987. *RCRA Facility Assessment of Radford Army Ammunition Plant.*

USEPA (U.S. Environmental Protection Agency). 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water.* September.

USEPA. 2000. *Permit for Corrective Action and Waste Minimization*: Pursuant to the Resource Conservation and Recovery Act as Amended by the Hazardous and Solid Waste Amendment of 1984, Radford Army Ammunition Plant, Radford, Virginia. VA1210020730.

USEPA. 2014a. *National Functional Guidelines for Inorganic Superfund Data Review*. OSWER 9355.0-131. EPA-540-R-013-001. August.

USEPA. 2014b. *National Functional Guidelines for Superfund Organic Methods Data Review*. OSWER 9355.0-132. EPA-540-R-014-001. August.

USEPA. 2018. *2018 Edition of the Drinking Water Standards and Health Advisories Tables.* EPA-822-F-18-001. March.

USEPA. 2020. ProUCL Software version 5.1.00.

USEPA. 2021. Regional Screening Level (RSL) – Generic Tables. November.

APPENDIX A-1
FIELD SAMPLING LOGS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/24/23
Well ID: 13MW2	Weather: 46°F sunny
Sampling Team: P. Taylor / O. McMillan	Sampler's Signature: Olena Mcmillan

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition:
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in. (4 in.) 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 21.73	Well Evacuation Method: (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 30.40	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1328	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 2.8

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1330	0.5	22.00	14.5	6089	4.36	7.61	71.2	29.40
1335	2.75	22.18	14.5	6089	4.06	7.41	74.5	15.74
1340	4.00	22.41	14.5	6088	4.07	7.40	72.4	8.74
1345	5.25	22.86	14.5	6087	4.16	7.37	72.4	5.71

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 22.86	Drawdown Observed (ft): 1.13
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1355	Total Volume Purged (L): 5.25

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/24/23 1350	(SWMU 49:) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous Fe, & Mn~~
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): NM	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): NM	Sample Collection Depth (ft. BTOC): 29

COMMENTS

Reagent kits not delivered yet

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/24/23
Well ID: 13MW3	Weather: 38°F sunny
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olena McMillen

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in. (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 22.32	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 15.20	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1056	Evacuation Rate (Lpm): 0.4
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1100	1.6	15.22	13.8	591.8	7.62	7.46	93.8	108.80
1105	3.6	15.22	13.9	592.6	7.42	6.24	94.9	55.80
1110	5.6	15.22	13.9	593.1	5.82	7.32	99.40	32.72
1115	7.6	15.22	13.8	592.0	5.70	7.27	100.7	22.37
1120	9.6	15.22	13.8	592.6	5.99	7.27	102.0	22.19
1125	11.6	15.22	13.6	592.5	5.21	7.26	102.3	16.33
1130	13.6	15.22	13.7	593.1	5.34	7.26	101.6	15.32
1135	15.6	15.22	13.8	593.2	5.27	7.21	101.3	13.78
1140	17.6	15.22	13.7	593.6	5.31	7.21	101.3	10.98
1145	19.6	15.22	13.8	594.2	5.17	7.18	101.1	9.81

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 15.22	Drawdown Observed (ft): 0.02
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1155	Total Volume Purged (L): 19.6

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW3	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/24/23 1150	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous FE, & Mn~~
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): NM	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): NM	Sample Collection Depth (ft. BTOC): 21.0

COMMENTS

Reagent kits not delivered yet

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/24/23
Well ID: 13MW4	Weather: 38 °F sunny
Sampling Team: P. Taylor / O. McMullen	Sampler's Signature: Olivia McMullen

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact) Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.25	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 16.73	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1010	Evacuation Rate (Lpm): 0.3
Stop Evacuation (Time/Reason): ~~1045~~ 1045	Restart Time:
	Headspace (ppm): 0.4

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1015	1.5	16.75	14.7	548.1	0.76	7.74	91.3	23.83
1020	3.0	16.75	14.7	547.7	0.70	7.67	84.9	15.57
1025	4.5	16.75	14.7	546.9	0.66	7.65	82.9	12.23
1030	6.0	16.75	14.7	544.4	0.75	7.58	81.5	10.46
1035	7.5	16.75	14.7	542.4	0.80	7.55	80.9	8.34

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft): 0.02
Odor: (YES) NO	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1045	Total Volume Purged (L): 7.5

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW4	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/24/23 1040	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous FE, & Mn~~
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): NM	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): NM	Sample Collection Depth (ft. BTOC): 24

COMMENTS

Reagent kits not delivered yet

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/24/23
Well ID: 13MW5	Weather: 33 °F sunny
Sampling Team: P. Taylor / A. McMillen	Sampler's Signature: Alena McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition:
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.25	Well Evacuation Method: (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 16.63	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0905	Evacuation Rate (Lpm) : 0.25
Stop Evacuation (Time/Reason): 0950	Restart Time:
	Headspace (ppm): 0.2

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0910	1.25	16.74	13.8	700	4.10	8.40	190.0	8.81
0915	2.50	16.74	13.8	6896	4.03	7.96	177.1	5.78
0920	3.75	16.74	13.8	6892	4.09	7.77	167.2	4.22
0925	5.00	16.74	13.5	6893	4.19	7.67	159.7	3.19
0930	6.25	16.74	13.8	6891	4.10	7.60	151.8	2.37
0935	7.50	16.74	13.4	6890	4.18	7.57	148.9	2.67

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 16.74	Drawdown Observed (ft): 0.11
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time):	Total Volume Purged (L): 7.50

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW5	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/24/2023 0940	(SWMU 49:) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous FE, & Mn~~
Duplicate Sample ID: N/A	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): NM	Sample Collection Method: (Low Flow) (LF) Other:
Ferrous Iron (mg/L): NM	Sample Collection Depth (ft. BTOC): 24

COMMENTS

Reagent kits not delivered yet

MS/MSD collected

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/26/23 - 1/27/23
Well ID: 48MW1	Weather: 38°F cloudy / windy
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., ~~2 in.~~, 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 145.46	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 110.56	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): ~~Han~~ 0757	Evacuation Rate (Lpm): ~~0.2 am~~ 0.02
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0815	0.02	110.55	2.3	5.7	9.93	8.59	230.9	Cels 8.9

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 110.55	Drawdown Observed (ft): 0.01
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 0910	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW1	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/~~27~~ 26/23 0830	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ~~dup~~ NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): ~~0.2 am~~ 2.3	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.0	Sample Collection Depth (ft. BTOC): 141e

COMMENTS

48MW1 - EQB @ 0911e

difficult to pump water through flow cell - very slow flow rate
started to drain flow cell once pumped to top (unable to push thru to bucket)

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/27/23
Well ID: 49MW2	Weather: 32°F sunny/windy
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 136.40	Well Evacuation Method (peristaltic (bladder pump) other):
Depth to Water (ft. BTOC): 125.13	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1100	Evacuation Rate (Lpm): 0.04
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1115	0.6	125.26	9.7	482.3	8.52	8.32	174.4	74.66
1120	0.8	125.27	10.0	491.9	8.86	8.15	168.9	19.14
1125	1.0	125.28	10.0	492.5	8.58	8.02	167.8	82.36
1130	1.2	125.32	9.7	495.0	8.51	7.97	166.4	759.2
1135	1.4	125.28	9.7	497.0	8.40	7.92	166.2	> 1000

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 125.28	Drawdown Observed (ft): 0.15
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1210	Total Volume Purged (L): 1.4

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/27/23 1140	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 1140	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 9.7	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.98	Sample Collection Depth (ft. BTOC): 135

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54

Date: 1/27/23

Well ID: 48MW3

Weather: 37°F sunny / wind

Sampling Team: P. Taylor / O. McMillen

Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged

Well ID Tag Condition: good

Locked: (YES) / NO

Measuring Point Marked: (YES) / NO

Concrete Base: (Intact) / Damaged

Comments:

Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 122.23

Well Evacuation Method (peristaltic, (bladder pump), other):

Depth to Water (ft. BTOC): 97.03

Screen Interval (ft. BGS):

Begin Well Evacuation (Time): 1225

Evacuation Rate (Lpm): 0.25

Stop Evacuation (Time/Reason):

Restart Time: 1321 Sam

Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1230	~~1.00~~ 0.2	97.12	9.7	698.2	7.44	7.99	159.0	562.6
1235	~~2.00~~ 0.5	97.21	10.6	702	6.43	7.82	158.3	84.03
1240	~~3.00~~ 0.75	97.30	11.3	707	5.94	7.74	156.1	70.38
1245	~~4.00~~ 1.0	97.35	11.4	707	5.92	7.68	154.7	63.34
1250	~~5.00~~ 1.25	97.43	11.5	705	5.82	7.64	153.2	60.29

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 97.43

Drawdown Observed (ft): 0.40

Odor: YES (NO)

Well Pumped Dry: YES / (NO)

End Well Evacuation (Time): 1320

Total Volume Purged (L): 1.25

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW3 1255

Sample Date & Time: 1/27/23

Duplicate Sample ID: 48TW3 1255

PARAMETERS (Circle all applicable):

(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn

SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn

Manganese (mg/L): 0.2

Sample Collection Method: (Low Flow) Other:

Ferrous Iron (mg/L): 0.08

Sample Collection Depth (ft. BTOC): 121

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/26/2023
Well ID: 48MWCe	Weather: 37°F cloudy/windy
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 80.20	Well Evacuation Method (peristaltic (bladder pump), other):
Depth to Water (ft. BTOC): 66.52	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1148	Evacuation Rate (Lpm): 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.4

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1150	0.2	66.68	10.3	481.2	5.60	7.42	161.9	654.0
1155	0.7	66.89	11.4	491.7	10.43	7.64	148.0	71000
1200	1.2	66.89	11.6	510.4	10.40	7.67	144.4	> 1000
1205	1.7	66.88	11.6	535.0	10.14	7.61	143.3	> 1000
1210	2.2	66.84	11.6	562.8	10.16	7.55	142.7	> 1000
1215	2.7	66.86	11.5	587.7	9.76	7.48	142.4	966.7
1220	3.2	66.89	11.8	614.10	9.61	7.44	141.7	981.1
1225	3.7	66.89	11.6	635.9	9.40	7.41	141.1	912.9
1230	4.2	66.87	11.5	658.3	9.25	7.37	141.6	805.9
1235	4.7	66.85	11.3	680	9.10	7.33	141.3	728.2
1240	5.2	66.86	11.5	705	8.98	7.30	141.1	457.7
1245	5.7	66.86	11.6	721	8.92	7.29	140.6	2954

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 66.86	Drawdown Observed (ft): 0.34
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1255	Total Volume Purged (L): 5.7

SAMPLE COLLECTION INFORMATION

Sample ID: 48MWCe	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/26/23 1250	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 2.1	Sample Collection Method: Low Flow Other:
Ferrous Iron (mg/L): 0.31	Sample Collection Depth (ft. BTOC):

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/26/2023
Well ID: 49MW7	Weather: 37°F cloudy/windy
Sampling Team: P. Taylor / O. McMillan	Sampler's Signature: Olivia McMillan

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: good
Locked: (YES)/ NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 83.35	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 50.19	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1011	Evacuation Rate (Lpm): 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1020	1.35	50.59	11.1	242.6	7.00	8.86	202.0	>1000
1025	2.1	51.29	11.3	229.3	7.56	8.37	179.0	226.2
1030	2.85	52.20	11.8	210.8	7.94	8.31	173.1	930.1
1035	3.60	52.77	11.9	207.7	8.18	8.19	167.9	>1000
1040	4.35	53.32	11.9	205.9	8.74	8.14	162.7	>1000
1045	5.1	53.54	11.6	204.0	9.34	8.10	159.3	>1000
1050	5.85	53.75	11.6	203.8	10.89	8.08	155.4	>1000
1055	6.60	53.96	11.8	204.4	12.31	8.06	151.9	>1000
1100	7.35	53.59	11.5	205.7	12.43	8.05	149.3	>1000
1105	8.1	53.61	11.8	209.2	12.99	7.99	149.1	>1000

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 53.61	Drawdown Observed (ft): 3.42
Odor: (YES)/ NO	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1120	Total Volume Purged (L): 8.1

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW7	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/26/2023 1110	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous Fe, & Mn~~
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): * lamp out? - too turbid	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): " lamp out? - too turbid	Sample Collection Depth (ft. BTOC): 82

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/27/23
Well ID: 49MW01	Weather: 37°F sunny / wind
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 123.22	Well Evacuation Method (peristaltic, (bladder pump) other):
Depth to Water (ft. BTOC): 115.70	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1345	Evacuation Rate (Lpm): 0.04
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1350	0.2	115.82	11.1	438.1	7.91	8.25	130.3	1010
1355	0.4	115.84	11.5	437.7	7.17	8.22	127.4	> 1100
1400	0.6	115.86	11.6	437.9	6.96	8.19	125.8	> 1100
1405	0.8	115.81	11.6	437.2	7.25	8.16	124.4	> 1100

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 115.81	Drawdown Observed (ft): 0.11
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1420	Total Volume Purged (L): 0.8

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW01	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/27/23 1410	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 4.1	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.62	Sample Collection Depth (ft. BTOC): ~ 120

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/27/23
Well ID: 49MW03	Weather: 32°F sunny / windy
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olena McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 105.43	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 119.70	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0945	Evacuation Rate (Lpm): 0.05
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0950	0.25	105.48	8.4	344.8	9.21	8.94	198.3	>11000
0955	0.50	105.46	9.4	355.0	9.81	8.59	194.3	> 11000
1000	0.75	105.46	9.6	355.7	9.81	8.41	184.9	>11000
1005	1.00	105.46	10.2	350.2	9.96	8.33	180.8	136.0
1010	1.25	105.46	10.1	350.1	10.03	8.29	177.5	4066.3
1015	1.50	105.46	10.3	350.0	9.99	8.24	175.0	1089

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 105.46	Drawdown Observed (ft): 0.03
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1035	Total Volume Purged (L): 1.50

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW03	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/27/23 1020	(SWMU 49:) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 2.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.28	Sample Collection Depth (ft. BTOC): 104

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/24/23
Well ID: 49MW04	Weather: 42°F sunny
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 72.75	Well Evacuation Method (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 20.94	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1215	Evacuation Rate (Lpm) : 0.3
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 8.4

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1220	1.5	24.89	13.8	0641	0.87	7.56	10.2	36.30
1225	3.0 ~~3.0~~ ~~2.5~~	25.14	13.8	0641	0.76	7.36	22.5	26.24
1230	4.5 ~~4.5~~	25.89	13.7	0639	0.64	7.50	26.1	21.60
1235	6.0	26.59	13.8	0640	0.73	7.35	28.3	18.80
1240	7.5	27.19	13.9	0641	0.73	7.43	30.0	12.75
1245	9.0	27.53	13.8	0641	0.81	7.44	31.5	15.22
1250	10.5	27.51	13.8	0641	0.89	7.44	32.2	15.57

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 27.51	Drawdown Observed (ft): 6.56
Odor: (YES) / NO slight sulfur	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1300	Total Volume Purged (L): 10.5

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW04	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/24/23 1255	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous FE, & Mn~~
Duplicate Sample ID: 49TW04	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): NM	Sample Collection Method: (Low Flow) (LF) Other:
Ferrous Iron (mg/L): NM	Sample Collection Depth (ft. BTOC): 71

COMMENTS

Reagent kits not delivered yet

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/24/23
Well ID: 49MW05	Weather: 48°F sunny
Sampling Team: P. Taylor / O. McMillan	Sampler's Signature: Olena McMillan

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: good
Locked: (YES)/ NO	Measuring Point Marked: (YES)/ NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 39.40	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 20.25	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1409	Evacuation Rate (Lpm): 0.3
Stop Evacuation (Time/Reason):	Restart Time: 9am
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1410	1.8	21.56	14.3	625.1	3.79	7.49	37.9	75.48
1415	3.3	22.19	14.3	625.4	3.89	7.47	47.5	43.40
1420	4.8	22.15	14.3	613.9	3.80	7.44	52.6	34.52
1425	6.3	22.59	14.2	606.0	4.02	7.42	54.9	20.67
1430	7.8	22.70	14.1	595.7	4.00	7.38	58.4	15.67
1435	9.3	22.61	14.1	590.5	3.00	7.39	58.0	14.30
1440	10.8	22.57	14.1	593.6	2.49	7.41	57.3	13.12
1445	12.3	22.49	14.1	582.3	2.46	7.41	57.7	14.85

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 22.49	Drawdown Observed (ft): 2.24
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1455	Total Volume Purged (L): 12.3

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW05	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/24/23 1450	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, ~~Ferrous Fe, & Mn~~
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): NM	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): NM	Sample Collection Depth (ft. BTOC): 38

COMMENTS

Reagent kits not delivered yet

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 1/27/23
Well ID: 50MW2	Weather: 37°F sunny
Sampling Team: P. Taylor / O. McMillen	Sampler's Signature: Olivia McMillen

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 120.36	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 116.50	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1440	Evacuation Rate (Lpm): 0.07
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1445	0.35	116.55	10.8	765	8.35	8.05	126.0	17.95
1450	0.70	116.56	11.5	767	5.38	7.60	128.0	4.88
1455	1.05	116.55	11.5	769	5.08	7.46	130.5	394.7
1500	1.40	116.55	11.5	763	4.82	7.39	132.2	> 1100
1505	1.75	116.55	11.5	760	4.98	7.37	133.9	487.4

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 116.55	Drawdown Observed (ft): 0.05
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1520	Total Volume Purged (L): 1.75

SAMPLE COLLECTION INFORMATION

Sample ID: 50MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 1/27/23 1510	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: NA	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.42	Sample Collection Depth (ft. BTOC): 119

COMMENTS

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	1/24/2023	13:18	2.8	21.73	30.40	Hard bottom
13MW3	1/24/2023	10:51	0.0	15.20	22.32	Hard bottom
13MW4	1/24/2023	10:01	0.4	16.73	25.25	Hard bottom
13MW5	1/24/2023	8:58	0.2	16.63	25.25	Soft bottom
49MW04	1/24/2023	12:01	8.4	20.94	72.75	Hard bottom
49MW05	1/24/2023	14:03	0.0	20.25	39.40	Soft bottom
48MW1	1/26/2023	13:15	0.0	110.56	145.46	Soft bottom
48MW2	1/26/2023	15:25	0.1	125.13	136.40	Soft bottom
48MW3	1/26/2023	15:30	0.0	97.03	122.23	Hard bottom
48MW6	1/26/2023	11:45	0.4	66.52	80.20	Soft bottom
48MW7	1/26/2023	10:05	0.0	50.19	83.35	Soft bottom
49MW01	1/26/2023	15:40	0.1	115.70	123.22	Soft bottom
49MW02	1/26/2023	15:45	0.0	92.74	134.60	Soft bottom
49MW03	1/26/2023	15:15	0.0	105.43	119.70	Soft bottom
50MW2	1/26/2023	15:20	0.0	116.50	120.36	Soft bottom
SWMU 54						
54MW1	1/24/2023	8:20	0.2	19.43	57.30	Hard bottom
54MW10	1/23/2023	14:40	0.0	15.84	30.25	Soft bottom
54MW12	1/24/2023	7:55	0.0	24.93	32.86	Hard bottom
54MW13	1/23/2023	11:55	0.0	21.38	25.24	Hard bottom

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/11/2023
Well ID: 13MW2	Weather: 77°, Partly Cloudy
Sampling Team: P. Taylor / K. Mastrodale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition:
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.48	Well Evacuation Method (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 22.28	Screen Interval (ft. BGS): 25-30
Begin Well Evacuation (Time): 1200	Evacuation Rate (Lpm): 0.250
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1210	2.5	22.22	15.5	690	6.87	7.25	150.5	16.2
1215	4.25	22.49	15.6	691	6.68	7.25	151.3	8.90
1220	6.0	22.72	15.5	692	6.77	7.26	152.3	4.06
1225	7.75	22.94	15.7	691	6.51	7.27	152.4	2.75

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 22.94	Drawdown Observed (ft): 1.66
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1240	Total Volume Purged (L): 7.75

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/11/2023 1230	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.0	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.00	Sample Collection Depth (ft. BTOC): 27.5

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/11/2023
Well ID: 13MW3	Weather: 67°, Sunny
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 22.40	Well Evacuation Method (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 15.15	Screen Interval (ft. BGS): 15-20
Begin Well Evacuation (Time): 0945	Evacuation Rate (Lpm): 0.250
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 8.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0955	2.50	15.15	15.4	630	3.09	7.21	145.6	24.5
1000	4.25	15.15	15.4	613	3.80	7.14	147.9	15.4
1005	6.0	15.15	15.4	609	4.17	7.11	151.1	9.76
1010	7.75	15.15	15.5	608	4.22	7.13	153.5	12.3
1015	9.25	15.15	15.5	608	4.22	7.13	155.1	6.09

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 15.15	Drawdown Observed (ft): 0.0
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1025	Total Volume Purged (L): 9.25

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW3	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/11/2023 1020	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.5	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.00	Sample Collection Depth (ft. BTOC): 17.5

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/11/2023
Well ID: 13MW4	Weather: 62°, Sunny
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: Good
Locked (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.33	Well Evacuation Method (peristaltic) / bladder pump, other):
Depth to Water (ft. BTOC): 16.71	Screen Interval (ft. BGS): 20-25
Begin Well Evacuation (Time): 0835	Evacuation Rate (Lpm): 0.200
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0845	2.00	16.71	14.7	539	1.03	7.27	183.0	9.97
0850	3.00	16.71	14.7	537	0.91	7.26	180.6	10.0
0855	4.00	16.71	14.7	536	0.92	7.25	178.0	6.81
0900	5.00	16.71	14.7	535	0.93	7.26	175.3	8.45

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 16.71	Drawdown Observed (ft): 0.0
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 0925	Total Volume Purged (L): 5.0

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW4	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/11/2023 0905	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.5	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.0	Sample Collection Depth (ft. BTOC): 22.5

COMMENTS

MS/MSD Collected

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: ~~7/12/2023~~ 7/13/2023
Well ID: 48MW1	Weather: 75°, Mostly Cloudy
Sampling Team: P. Taylor / K. Mortondale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition:
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 142.07	Well Evacuation Method (peristaltic, (bladder pump) other):
Depth to Water (ft. BTOC): 106.46	Screen Interval (ft. BGS): 135 - 145
Begin Well Evacuation (Time): 1030	Evacuation Rate (Lpm): 0.02
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1040	0.2	—	29.4	564	5.87	7.68	163.9	93.9
1045	0.3	—	29.4	566	7.09	7.72	159.4	118
1050	0.4	—	26.8	558	7.57	7.77	154.2	114
1055	0.5	—	27.1	549	7.28	7.80	149.9	116
1100	0.6	—	28.2	551	7.05	7.80	147.1	127
1105	0.7	—	27.9	555	7.16	7.80	145.9	123
1110	0.8	—	27.4	557	7.56	7.80	145.2	116

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft): —
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1105	Total Volume Purged (L): 0.8

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW1	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/13/2023 1115	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.5	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.30	Sample Collection Depth (ft. BTOC): 140

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/14/2023
Well ID: 48MW2	Weather: 70°, Mostly Cloudy
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 136.40	Well Evacuation Method (peristaltic, (bladder pump) other):
Depth to Water (ft. BTOC): 124.06	Screen Interval (ft. BGS): 125-135
Begin Well Evacuation (Time): 0815	Evacuation Rate (Lpm): 0.03
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0825	0.3	124.22	16.4	511	7.29	7.38	185.0	71000
0830	0.45	124.26	16.4	511	7.12	7.39	182.3	71000
0835	0.6	124.27	16.4	511	7.00	7.39	180.3	71000
0840	0.75	124.28	16.4	512	6.87	7.39	178.6	71000

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 124.28	Drawdown Observed (ft): 0.22
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 0925	Total Volume Purged (L): 0.75

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/14/2023 0845	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 4.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.24	Sample Collection Depth (ft. BTOC): 130

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/14/2023
Well ID: 48MW3	Weather: 72°, Cloudy
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 122.20	Well Evacuation Method (peristaltic, (bladder pump) other):
Depth to Water (ft. BTOC): 96.85	Screen Interval (ft. BGS): 115 – 125
Begin Well Evacuation (Time): 0955	Evacuation Rate (Lpm): 0.08
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1005	0.8	97.18	14.4	728	5.60	7.17	174.3	65.7
1010	1.2	97.28	14.4	727	5.34	7.17	173.3	3.57
1015	1.6	97.37	14.5	726	5.26	7.16	173.1	2.54
1020	2.0	97.47	14.2	727	5.23	7.16	172.3	2.26

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 97.47	Drawdown Observed (ft): 0.62
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1035	Total Volume Purged (L): 2.0

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW3	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/14/2023 1025	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.0	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.00	Sample Collection Depth (ft. BTOC): 120

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/12/2023
Well ID: 48MW6	Weather: 63°, Partly Cloudy
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: Good
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 79.55	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 66.47	Screen Interval (ft. BGS): 75-80
Begin Well Evacuation (Time): 0840	Evacuation Rate (Lpm): 0.125
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0850	1.25	66.77	14.7	603	1.61	7.26	141.4	953
0855	2.0	66.73	14.9	625	2.07	7.24	144.5	441
0900	2.75	66.73	14.8	664	2.84	7.21	146.9	300
0905	3.50	66.73	14.8	682	2.90	7.21	147.2	243
0910	4.25	66.73	14.8	711	2.96	7.17	146.4	190
0915	5.0	66.73	14.8	734	2.87	7.15	141.3	152
0920	5.75	66.73	14.9	736	2.73	7.15	134.5	136
0925	6.50	66.73	15.0	744	2.70	7.14	130.3	115
0930	7.25	66.73	15.1	747	2.61	7.13	127.9	98.2
0935	8.0	66.73	15.1	753	2.52	7.13	124.2	83.4
0940	8.75	66.73	15.1	768	2.44	7.12	118.4	78.2
0945	9.50	66.73	15.2	775	2.36	7.11	110.1	65.2

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft):
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW6	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/12/2023 1025	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.6	Sample Collection Method: Low Flow Other:
Ferrous Iron (mg/L): 0.02	Sample Collection Depth (ft. BTOC): 77.5

COMMENTS

Ringate Blank taken @

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/12/2023
Well ID: 48MW6 - Contd.	Weather: —
Sampling Team: —	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 79.55	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 66.47	Screen Interval (ft. BGS): 75-80
Begin Well Evacuation (Time): 0840	Evacuation Rate (Lpm): 0.125
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0950	10.25	66.73	15.3	793	2.24	7.10	106.0	52.7
~~0955~~	11.0	66.73	15.2	817	2.22	7.09	101.4	47.2
1000	11.75	66.73	15.2	822	2.13	7.09	99.0	45.2
1005	12.5	66.73	15.3	829	2.15	7.09	96.3	39.1
1010	13.25	66.73	15.3	844	2.18	7.08	94.2	34.6
1015	14.0	66.73	15.5	847	2.20	7.08	92.3	33.7
1020	14.75	66.73	15.5	854	2.24	7.08	90.2	32.4

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 66.73	Drawdown Observed (ft): 0.26
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1030	Total Volume Purged (L): 14.75

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW6	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/12/2023 1025	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.6	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.02	Sample Collection Depth (ft. BTOC): 77.5

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/12/2023
Well ID: 49MW01	Weather: 77°, Sunny
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition:
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 124.10	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 115.65	Screen Interval (ft. BGS): 120 - 125
Begin Well Evacuation (Time): 1145	Evacuation Rate (Lpm): 0.045
Stop Evacuation (Time/Reason): 1210, water stopped flowing	Restart Time: 1230
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1155	0.45	115.77	~~19.7~~ 19.7	434.4	8.03	7.77	154.8	>1000
1200	0.90	115.77	19.4	424.1	9.22	7.91	155.6	>1000
1205	1.35	115.69	19.4	424.3	9.01	8.02	156.4	—
~~1210~~ 1235	1.80		19.1	421.8	~~8.11~~ 8.08	8.14	158.7	
1240	Water stopped flowing again, pulled pump and							
1245	fill sample bottles with water in tubing.							
1250								

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft):
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1240	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW01	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/12/2023 1255	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 49TW01	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 6.5	Sample Collection Method: (Low Flow) Other
Ferrous Iron (mg/L): 0.78	Sample Collection Depth (ft. BTOC): 122.5

COMMENTS

Equipment Rinsate Blank 49MW01-EQB collected at 1415

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/14/2023
Well ID: 49MW02	Weather: 77°, Cloudy
Sampling Team: P. Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 134.59	Well Evacuation Method (peristaltic, (bladder pump) other):
Depth to Water (ft. BTOC): 92.65	Screen Interval (ft. BGS): 125-135
Begin Well Evacuation (Time): 1110	Evacuation Rate (Lpm): 0.100
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1120	1.00	93.76	14.4	576	3.65	7.35	146.0	132
1125	1.50	94.40	14.3	576	3.26	7.35	143.6	101
1130	2.00	95.00	14.1	576	2.99	7.35	136.6	139
1135	2.50	95.27	14.1	570	2.65	7.35	126.7	137
1140	3.00	95.77	14.0	573	2.55	7.35	118.6	131
11545	3.50	96.27	14.0	574	2.53	7.35	112.7	114
1150	4.00	96.68	14.0	572	2.50	7.35	108.7	105

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 96.68	Drawdown Observed (ft): 4.03
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1210	Total Volume Purged (L): 4.00

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW02	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/14/2023 1155	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.3	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.17	Sample Collection Depth (ft. BTOC): 130

COMMENTS

49IDW Sample collected at 1255

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/11/2023
Well ID: 49MW04	Weather: 74°, Sunny
Sampling Team: P. Taylor / K. Mortimdale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 72.75	Well Evacuation Method (peristaltic) / bladder pump, other):
Depth to Water (ft. BTOC): 20.76	Screen Interval (ft. BGS): 65-70
Begin Well Evacuation (Time): 1050	Evacuation Rate (Lpm): 0.200
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1100	2.0	24.34	15.3	681	2.04	7.37	103.1	23.5
1105	3.0	25.20	15.6	680	1.34	7.38	110.2	16.5
1110	4.0	25.75	15.8	679	1.07	7.38	114.8	15.6
1115	5.0	26.10	16.0	678	1.00	7.37	118.1	11.0
1120	6.0	26.38	15.8	677	0.99	7.37	120.8	9.70

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 26.38	Drawdown Observed (ft): 5.62
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1145	Total Volume Purged (L): 6.0

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW04	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/11/2023 1125	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 49TW04	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.0	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.0	Sample Collection Depth (ft. BTOC): 67.5

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 7/13/2023
Well ID: 50MW2	Weather: 86°, Mostly Cloudy
Sampling Team: P.Taylor / K. Martindale	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 120.37	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 115.12	Screen Interval (ft. BGS): 115 – 120
Begin Well Evacuation (Time): 1435	Evacuation Rate (Lpm): 0.100
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1445	1.00	115.15	14.7	693	4.31	7.01	120.1	191
1450	1.50	115.15	14.4	693	4.47	6.99	109.3	154
1455	2.00	115.15	14.3	698	4.87	6.99	102.8	113
1500	2.50	115.15	14.4	696	5.07	7.01	98.8	83.6
1505	3.00	115.15	14.2	695	5.18	7.02	93.6	52.1
1510	3.50	115.15	14.2	690	5.00	7.04	92.6	36.4
1515	4.00	115.15	14.1	689	5.15	7.04	92.6	30.3
1520	4.50	115.15	14.2	687	4.88	7.05	90.6	20.4
1525 ~~1530~~	5.00	115.15	14.3	687	4.82	7.04	90.3	17.6
1530 ~~1535~~	5.50	115.15	14.1	687	4.76	7.04	90.2	12.9
1535 ~~1540~~	6.00	115.15	14.2	687	4.74	7.04	91.2	12.4
1540 ~~1545~~	6.50	115.15	14.3	685	5.01	7.05	89.6	13.3

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 115.15	Drawdown Observed (ft): 0.03
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time):	Total Volume Purged (L): 6.5

SAMPLE COLLECTION INFORMATION

Sample ID: 50MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 7/13/2023 1545	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.9	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.0	Sample Collection Depth (ft. BTOC): 117.5

COMMENTS

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	7/11/2023	1150	0.0	21.28	30.48	
13MW3	7/11/2023	0935	0.0	15.15	22.40	
13MW4	7/11/2023	0826	0.0	16.71	25.33	
13MW5	7/11/2023	0813 ~~0744~~	0.0	16.77	25.33	
49MW04	7/11/2023	1035	0.0	20.76	72.75	
49MW05	7/11/2023	1247	0.0	20.26	39.47	
48MW1	7/12/2023	1425	0.0	106.46	142.07	
* 48MW2	7/13/2023	1045	0.1	124.06	136.40	Muddy bottom
* 48MW3	7/13/2023	1045	0.0	96.85	122.20	Hard bottom
[redacted]MW6	7/12/2023	0812	0.0	66.47	79.55	Muddy bottom
48MW7	7/12/2023	0745	0.0	48.55	83.90	Muddy bottom
49MW01	7/12/2023	1041	0.0	115.65	124.10	Muddy bottom
* 49MW02	7/13/2023	1045	0.0	92.65	134.59	
49MW03	7/12/2023	0802	0.0	104.40	119.75	Muddy bottom
50MW2	7/13/2023	1045	0.0	115.12	120.71	
SWMU 54						
54MW1	7/10/2023	1448	0.0	19.00	57.36	
54MW10	7/10/2023	1148	0.1	16.03	30.00	
54MW12	7/10/2023	1322	0.1	25.11	32.93	
54MW13	7/10/2023	0841	0.0	21.70	25.32	

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

*=Water levels taken on 7/14/2023

APPENDIX A-2
CALIBRATION FORMS

Equipment Calibration Log

Project: Radford Groundwater Sampling – SWMUs 49 and 54

Date/Time	Equipment Description	Equipment ID	Calibration				
			Calibration Standard/Value	Pre-Calibration Readings	Post-Calibration Readings	Performed By	Lot No./Expiration Date/Comments
January 2023 Sampling Event							
1-24-2023/8:50	MultiRAE	22414	CO/50 ppm	40 ppm	49 ppm	Paul Taylor	Lot No. 314-606672739-1 Expires: 04/12/2023
			H_2S/10 ppm	11.4 ppm	10.0 ppm	Paul Taylor	
			LEL/50%	47.0%	49%	Paul Taylor	
			O_2/18.0%	18.1%	18.0%	Paul Taylor	
			VOC/100 ppm	93.6 ppm	100.1 ppm	Paul Taylor	Lot No. 304-40180617-1 Expires: 08/12/2023
1-24-2023/8:40	YSI – DSS	22813	Turbidity/123 NTU	144 NTU	121.9 NTU	Paul Taylor	
July 2023 Sampling Event							
07-11-2023/8:25	MultiRAE	22010	CO/50 ppm	39 ppm	49 ppm	Paul Taylor	Lot No. 308-4958730839-1 Expires: 10/10/2023
			H_2S/10 ppm	11.0 ppm	10.1 ppm	Paul Taylor	
			LEL/50%	48.3%	49%	Paul Taylor	
			O_2/18.0%	18.2%	18.0%	Paul Taylor	
			VOC/100 ppm	91.1 ppm	100.3 ppm	Paul Taylor	Lot No. 314-497305821-1 Expires: 08/12/2023
07-11-2023/8:20	YSI – DSS	22913	Turbidity/123 NTU	128 NTU	122.1 NTU	Paul Taylor	

Notes:

% = percent
CO = carbon monoxide
DSS = digital sampling system
H_2S = hydrogen sulfide
ID = identifier
LEL = lower explosive limit
No. = number
NTU = nephelometric turbidity unit
O_2 = oxygen
ppm = parts per million
SWMU = Solid Waste Management Unit
VOC = volatile organic compound
YSI = Yellow Springs Instrument

APPENDIX B-1
LABORATORY ANALYTICAL REPORTS

CT LABORATORIES

delivering more than data from your environmental analyses

ANALYTICAL RESULTS FOR:

ANTHONY PACE
WESTON SOLUTIONS, INC.
2 EATON STREET
SUITE 603
HAMPTON, VA 23669

PROJECT SITE:	RFAAP SWMU-49; RADFORD, VA
DOD CONTRACT #:	
PROJECT #:	
SDG:	***175065***
FOLDERS:	175065,175102, 175116
PREPARED:	February 16, 2023
TOTAL # OF PAGES:	1350

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: Brett Szymanski
PROJECT MANAGER

Certifications: IL (NELAP 200073), KS (NELAP E-10368), WI (157066030), DOD ELAP (A2LA 3806.01), VA (NELAP 460203), LA (primary NELAP 115843), ISO17025 (A2LA 3806.01)

CT LABORATORIES

delivering more than data from your environmental analyses

Table of Contents

Section	Page
Cover Page	1
Table of Contents	2
Case Narrative and Summary of Detects (if applicable)	3
Data Qualifier Sheet	7
Sample Delivery Group Summary	9
QC Batch Cross Reference	10
VOC QC Summary Documents	14
VOC Sample Data Documents	138
VOC ICAL Documents	251
VOC CCV Documents	337
VOC QC Documents	384
VOC Logbook Documents	416
Metals CLP Forms Documents	466
Metals Raw Data Documents	527
Metals Logbook Documents	659
Inorganic CLP Forms Documents	1058
Inorganic Raw Data Documents	1188
Inorganic Logbook Documents	1280
Chain of Custody, PM Confirmation and Sample Condition Forms	1319

CT LABORATORIES

delivering more than data from your environmental analyses

Case Narrative

Client: Weston Solutions
Project: RFAAP SWMU-49, Radford, VA
Sample Receipt Date(s): 01/26/2023, 01/27/2023, 01/28/2023
SDG #: *175065* (Folder #'s 175065, 175102, 175116)

Eighteen water samples were received and analyzed for a variety of parameters, including: VOCs, Dissolved Gases, Metals, pH, COD, Anions, and TOC. Two Trip Blanks were included with the VOCs. The assigned sample ID number, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits. A breakdown of sample receipt information can be found on the Sample Condition Report located in the last section of the data package and any exceptions are noted below. The analyses were performed following DOD QSM 5.4 requirements.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, a Reason #(s) was included on the raw data that corresponds to the "Index Key for Manual Integration Rationale." The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Analysis and Quality Control

Volatile Analysis:

The samples were analyzed using US EPA Methods 8260C (VOC) and RSK-175 (Dissolved Gases). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8260 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

VOC (8260C) Water Analysis

Analytical Run #'s 268887 & 268886

CCV1 (analyzed 02/01/2023 @ 09:47 on VMS3) had high recoveries outside of specified criteria for trichlorofluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, and methylcyclohexane. These compounds were qualified with a "Z" flag in the associated samples.

Dissolved Gases (RSK-175) Analysis

Analytical Run # 268888 (Methane, Ethene, Ethane)

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 268889 (Methane, Ethene, Ethane)

All analytical results for this run met the method/project specified quality control criteria.

Metals Analysis:

The samples were analyzed using US EPA Methods 6010C (ICP) and 7470A (Hg). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification
Blanks Summary
ICP Interference Check Data
Spike Sample Recovery
Duplicates Data
Laboratory Control Sample Data
Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

ICP Metals (6010C) Water Analysis

Continuing Calibration Verification (CCV) standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Analytical Run # 268911

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 268912

Silver was detected in the Method Blank (MB) greater than the Method Detection Limit (MDL) but less than ½ the Reporting Limit (RL). The sample was reported and not qualified because the silver result was less than the MDL.

Potassium was detected in the MB above the MDL and greater than ½ the RL. The sample was reported and not reanalyzed because the MB potassium result was less than 1/10th of the sample result.

The Duplicate (DUP) for sample # 1284325 was not applicable for antimony, arsenic, beryllium, cadmium, copper, selenium, silver, and thallium because the results were less than the adjusted Limit of Quantitation (LOQ). A Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

The Matrix Spike (MS) and/or MSD for sample # 1284325 had recoveries outside the specified limits for aluminum, antimony, beryllium, iron, manganese, and thallium. A Serial Dilution (L) was analyzed and was not applicable for antimony, beryllium, and thallium because the parent sample raw results were less than 50 times the LOQ. The L was analyzed and was not acceptable for aluminum, iron, and manganese because the results exceeded the Relative Percent Difference (RPD) limit. A Post Digestion Spike (PDS) was analyzed and was unacceptable for iron, manganese, and thallium. The parent sample was reported and qualified with an "M" flag for the failing elements.

CVAA Mercury (7470A) Water Analysis

Analytical Run # 268967

The sample QC was performed on a sample from a different SDG (SDG # 175012).

All analytical results for this run met the method/project specified quality control criteria.

Inorganic Analysis:

The samples were analyzed using US EPA Methods 9060A (TOC), 9040C (pH), 410.4 (COD) and 9056A (Anions). All samples were analyzed within the holding time unless noted below. The following summaries of quality control procedures are included:

Duplicate Analysis Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Anions (9056A) Water Analysis

Analytical Run # 268838

Sample #'s 1283670, 1283671, and 1283672 were received past hold time for nitrate due to a FedEx shipping delay. The results for this analyte were qualified with an "H" flag.

Analytical Run # 268868

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 268885

All analytical results for this run met the method/project specified quality control criteria.

COD (410.4) Water Analysis

Analytical Run # 269036

The MS/MSD for sample # 1284325 had a high recovery. The parent sample result was qualified with an "M" flag.

pH (9040C) Water Analysis

Analytical Run # 268842

All analytical results for these runs met the method/project specified quality control criteria.

TOC (9060A) Water Analysis

Analytical Run # 268891

All analytical results for these runs met the method/project specified quality control criteria.

CT LABORATORIES

delivering more than data from your environmental analyses

Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

CT LABORATORIES

delivering more than data from your environmental analyses

MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: **Data system failed to select the correct peak or missed the peak entirely.**
In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: **Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.**
This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.
For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.
Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the *QA/QC* Supervisor will be required.

CT LABORATORIES
delivering more than data from your environmental analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

Sample Delivery Group

175065

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SMWU 49
Project #:

	CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
1	1283669	175065		TB-1	TRIP BLANK	01/24/2023	01/26/2023
2	1283670	175065		13MW5	GROUND WATER	01/24/2023	01/26/2023
3	1283671	175065		13MW4	GROUND WATER	01/24/2023	01/26/2023
4	1283672	175065		13MW3	GROUND WATER	01/24/2023	01/26/2023
5	1283673	175065		49MW04	GROUND WATER	01/24/2023	01/26/2023
6	1283674	175065		49TW04	GROUND WATER	01/24/2023	01/26/2023
7	1283675	175065		13MW2	GROUND WATER	01/24/2023	01/26/2023
8	1283676	175065		49MW05	GROUND WATER	01/24/2023	01/26/2023
9	1283979	175102		48MW7	GROUND WATER	01/26/2023	01/27/2023
10	1283980	175102		48MW6	GROUND WATER	01/26/2023	01/27/2023
11	1284314	175116		TB-2	TRIP BLANK	01/26/2023	01/28/2023
12	1284315	175116		48MW7	GROUND WATER	01/26/2023	01/28/2023
13	1284316	175116		48MW6	GROUND WATER	01/26/2023	01/28/2023
14	1284317	175116		48MW1	GROUND WATER	01/27/2023	01/28/2023
15	1284318	175116		48MW1-EQB	GROUND WATER	01/27/2023	01/28/2023
16	1284319	175116		49MW03	GROUND WATER	01/27/2023	01/28/2023
17	1284320	175116		48MW2	GROUND WATER	01/27/2023	01/28/2023
18	1284321	175116		48MW3	GROUND WATER	01/27/2023	01/28/2023
19	1284322	175116		48TW3	GROUND WATER	01/27/2023	01/28/2023
20	1284323	175116		49MW01	GROUND WATER	01/27/2023	01/28/2023
21	1284324	175116		50MW2	GROUND WATER	01/27/2023	01/28/2023
22	1284325	175116		49IDW	GROUND WATER	01/27/2023	01/28/2023

CT LABORATORIES
delivering more than data from your environmental analyses
1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

QC Batch Cross Reference Summary

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SWMU 49
Project #:
Report Date: 02/15/2023
Date Received: 1/28/2023
SDG #: 175065

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1284325	pH	EPA 9040C	GROUND WATER		268915

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1284325	COD QSM	EPA 410.4	GROUND WATER	128538	269036

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1283670	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283671	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283672	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283673	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283674	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283675	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283676	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283979	Anions QSM 5.0	EPA 9056A	GROUND WATER		268868
1283980	Anions QSM 5.0	EPA 9056A	GROUND WATER		268868
1284317	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284318	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284319	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284320	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284321	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284322	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284323	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284324	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1283670	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283671	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283672	Anions QSM 5.0	EPA 9056A	GROUND WATER		268838
1283980	Anions QSM 5.0	EPA 9056A	GROUND WATER		268868
1284321	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284322	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885
1284324	Anions QSM 5.0	EPA 9056A	GROUND WATER		268885

Project Name: RADFORD AAP SMWU 49
Project #:
SDG #: 175065

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1283670	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283671	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283672	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283673	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283674	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283675	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283676	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283979	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1283980	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268891
1284317	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284318	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284319	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284320	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284321	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284322	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284323	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893
1284324	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		268893

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1284325	Potassium, Total QSM 5.0	EPA 6010C	GROUND WATER	128482	268911

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1284325	Sodium, Total QSM 5.0	EPA 6010C	GROUND WATER	128482	268911

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1284325	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	128482	268912

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1284325	Mercury, Total QSM	EPA 7470A	GROUND WATER	128485	268967

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1283669	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		268886
1283670	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886
1283671	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886
1283672	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886
1283673	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886
1283674	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886

Project Name: RADFORD AAP SMWU 49
Project #:
SDG #: 175065

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1283675	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886
1283676	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268886
1284314	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		268887
1284315	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284316	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284317	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284318	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284319	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284320	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284321	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284322	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284323	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887
1284324	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		268887

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1283670	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1283671	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1283672	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1283673	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1283674	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1283675	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1283676	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128475	268888
1284315	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284316	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284317	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284318	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284319	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284320	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284321	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284322	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284323	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889
1284324	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	128476	268889

Project Name: RADFORD AAP SWMU 49
Project #:
SDG #: 175065

Summary of Methods associated with SDG

SDG: **175065**
Company: **WESTON SOLUTIONS, INC.**
Project: **RADFORD AAP SWMU 49**

Matrix	Analytical Method	Prep Method	Cleanup Method(s) - if applicable
GROUND WATER	EPA 9040C	NONE	
GROUND WATER	EPA 410.4	EPA 414	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 7470A	EPA 7470A	
GROUND WATER	EPA 8260C	EPA 5030B	
TRIP BLANK	EPA 8260C	EPA 5030B	
GROUND WATER	RSK 175	RSK175M	
GROUND WATER	EPA 9056A	NONE	
GROUND WATER	EPA 9060A	NONE	

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 10:01	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 08:56	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	5.4		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.57	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.88	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 08:46	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.63	J	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.91	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 08:29	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 09:58	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	0.47	J	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1-EQB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.65		0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1-EQB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.2	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	0.88	J	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	1.00		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	14		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	2.8		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.71	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:17	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	53		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	8.7		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	10		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 09:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:13	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.6		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:13	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	3.6		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:13	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.8		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 09:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
74-84-0	Ethane	0.51	J	T	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	T	0.59	1.2	1.4	1.4
74-82-8	Methane	0.93	J	T	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U T	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U T	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U T	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U T	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U T	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U T	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U T	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U T	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U T	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U T	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U T	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U T	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U T	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U T	34	50	100	100
78-93-3	2-Butanone	10	U T	2.9	10	11	11
591-78-6	2-Hexanone	10	U T	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U T	3.7	10	12	12
67-64-1	Acetone	10	U T	4.1	10	20	20
71-43-2	Benzene	1.0	U T	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U T	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U T	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U T	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U T	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U T	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U T	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U T	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U T	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U T	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U T	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U T	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U T	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U T	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U T	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U T	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U T	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U TZ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U T	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U T	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U T	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U T	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U TZ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U T	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U T	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U T	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U T	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U T	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U T	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U T	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U T	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U TZ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U T	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:48	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48TW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48TW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	55		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	8.8		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	11		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:19	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	2.6		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW03**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:06	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	4.5		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW03**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW03**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 09:02	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.4		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 10:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW05**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 09:51	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.4		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:23	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	1.1		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 20:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 20:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.3		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 20:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.83	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **TB-1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283669
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:16	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283669
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:16	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283669
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:16	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **TB-2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284314
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284314
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284314
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1284326
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG012323	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
74-84-0	Ethane	01/31/2023	08:22	0.38	U	0.38	1.0	***0.4***
74-85-1	Ethene	01/31/2023	08:22	0.59	U	0.59	1.4	***0.6***
74-82-8	Methane	01/31/2023	08:22	0.45	U	0.45	1.0	***0.4***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284329
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG012323	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
74-84-0	Ethane	02/01/2023	09:43	0.38	U	0.38	1.0	***0.4***
74-85-1	Ethene	02/01/2023	09:43	0.59	U	0.59	1.4	***0.6***
74-82-8	Methane	02/01/2023	09:43	0.45	U	0.45	1.0	***0.4***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285593
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268886	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	02/01/2023	10:46	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	02/01/2023	10:46	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	02/01/2023	10:46	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	02/01/2023	10:46	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	02/01/2023	10:46	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	02/01/2023	10:46	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	02/01/2023	10:46	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	02/01/2023	10:46	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	02/01/2023	10:46	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	02/01/2023	10:46	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	02/01/2023	10:46	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	02/01/2023	10:46	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	02/01/2023	10:46	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	02/01/2023	10:46	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	02/01/2023	10:46	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	02/01/2023	10:46	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	02/01/2023	10:46	4.1	U	4.1	20	***10***
71-43-2	Benzene	02/01/2023	10:46	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	02/01/2023	10:46	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	02/01/2023	10:46	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	02/01/2023	10:46	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	02/01/2023	10:46	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	02/01/2023	10:46	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285593
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268886	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	02/01/2023	10:46	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	02/01/2023	10:46	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	02/01/2023	10:46	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	02/01/2023	10:46	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	02/01/2023	10:46	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	02/01/2023	10:46	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	02/01/2023	10:46	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	02/01/2023	10:46	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	02/01/2023	10:46	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	02/01/2023	10:46	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	02/01/2023	10:46	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	02/01/2023	10:46	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	02/01/2023	10:46	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	02/01/2023	10:46	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	02/01/2023	10:46	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	02/01/2023	10:46	0.28	U	0.28	1.1	***0.55***
108-87-2	Methylcyclohexane	02/01/2023	10:46	0.78	U	0.78	2.4	***1.2***
75-09-2	Methylene chloride	02/01/2023	10:46	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	02/01/2023	10:46	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	02/01/2023	10:46	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	02/01/2023	10:46	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	02/01/2023	10:46	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	02/01/2023	10:46	0.35	U	0.35	1.1	***0.55***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285593
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268886	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
10061-02-6	trans-1,3-Dichloropropene	02/01/2023	10:46	0.56	U	0.56	2.1	***1.05***
79-01-6	Trichloroethene	02/01/2023	10:46	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	02/01/2023	10:46	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	02/01/2023	10:46	0.12	U	0.12	0.50	***0.25***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285594
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268887	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	02/01/2023	10:46	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	02/01/2023	10:46	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	02/01/2023	10:46	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	02/01/2023	10:46	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	02/01/2023	10:46	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	02/01/2023	10:46	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	02/01/2023	10:46	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	02/01/2023	10:46	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	02/01/2023	10:46	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	02/01/2023	10:46	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	02/01/2023	10:46	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	02/01/2023	10:46	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	02/01/2023	10:46	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	02/01/2023	10:46	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	02/01/2023	10:46	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	02/01/2023	10:46	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	02/01/2023	10:46	4.1	U	4.1	20	***10***
71-43-2	Benzene	02/01/2023	10:46	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	02/01/2023	10:46	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	02/01/2023	10:46	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	02/01/2023	10:46	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	02/01/2023	10:46	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	02/01/2023	10:46	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285594
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268887	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	02/01/2023	10:46	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	02/01/2023	10:46	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	02/01/2023	10:46	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	02/01/2023	10:46	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	02/01/2023	10:46	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	02/01/2023	10:46	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	02/01/2023	10:46	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	02/01/2023	10:46	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	02/01/2023	10:46	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	02/01/2023	10:46	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	02/01/2023	10:46	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	02/01/2023	10:46	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	02/01/2023	10:46	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	02/01/2023	10:46	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	02/01/2023	10:46	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	02/01/2023	10:46	0.28	U	0.28	1.1	***0.55***
108-87-2	Methylcyclohexane	02/01/2023	10:46	0.78	U	0.78	2.4	***1.2***
75-09-2	Methylene chloride	02/01/2023	10:46	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	02/01/2023	10:46	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	02/01/2023	10:46	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	02/01/2023	10:46	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	02/01/2023	10:46	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	02/01/2023	10:46	0.35	U	0.35	1.1	***0.55***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285594
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268887	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
10061-02-6	trans-1,3-Dichloropropene	02/01/2023	10:46	0.56	U	0.56	2.1	***1.05***
79-01-6	Trichloroethene	02/01/2023	10:46	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	02/01/2023	10:46	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	02/01/2023	10:46	0.12	U	0.12	0.50	***0.25***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285802
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268886	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	02/02/2023	09:06	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	02/02/2023	09:06	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	02/02/2023	09:06	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	02/02/2023	09:06	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	02/02/2023	09:06	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	02/02/2023	09:06	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	02/02/2023	09:06	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	02/02/2023	09:06	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	02/02/2023	09:06	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	02/02/2023	09:06	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	02/02/2023	09:06	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	02/02/2023	09:06	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	02/02/2023	09:06	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	02/02/2023	09:06	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	02/02/2023	09:06	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	02/02/2023	09:06	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	02/02/2023	09:06	4.1	U	4.1	20	***10***
71-43-2	Benzene	02/02/2023	09:06	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	02/02/2023	09:06	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	02/02/2023	09:06	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	02/02/2023	09:06	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	02/02/2023	09:06	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	02/02/2023	09:06	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285802
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268886	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	02/02/2023	09:06	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	02/02/2023	09:06	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	02/02/2023	09:06	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	02/02/2023	09:06	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	02/02/2023	09:06	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	02/02/2023	09:06	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	02/02/2023	09:06	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	02/02/2023	09:06	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	02/02/2023	09:06	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	02/02/2023	09:06	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	02/02/2023	09:06	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	02/02/2023	09:06	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	02/02/2023	09:06	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	02/02/2023	09:06	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	02/02/2023	09:06	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	02/02/2023	09:06	0.28	U	0.28	1.1	***0.55***
75-09-2	Methylene chloride	02/02/2023	09:06	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	02/02/2023	09:06	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	02/02/2023	09:06	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	02/02/2023	09:06	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	02/02/2023	09:06	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	02/02/2023	09:06	0.35	U	0.35	1.1	***0.55***
10061-02-6	trans-1,3-Dichloropropene	02/02/2023	09:06	0.56	U	0.56	2.1	***1.05***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285802
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268886	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
79-01-6	Trichloroethene	02/02/2023	09:06	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	02/02/2023	09:06	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	02/02/2023	09:06	0.12	U	0.12	0.50	***0.25***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285803
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268887	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	02/02/2023	09:06	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	02/02/2023	09:06	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	02/02/2023	09:06	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	02/02/2023	09:06	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	02/02/2023	09:06	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	02/02/2023	09:06	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	02/02/2023	09:06	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	02/02/2023	09:06	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	02/02/2023	09:06	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	02/02/2023	09:06	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	02/02/2023	09:06	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	02/02/2023	09:06	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	02/02/2023	09:06	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	02/02/2023	09:06	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	02/02/2023	09:06	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	02/02/2023	09:06	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	02/02/2023	09:06	4.1	U	4.1	20	***10***
71-43-2	Benzene	02/02/2023	09:06	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	02/02/2023	09:06	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	02/02/2023	09:06	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	02/02/2023	09:06	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	02/02/2023	09:06	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	02/02/2023	09:06	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285803
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268887	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	02/02/2023	09:06	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	02/02/2023	09:06	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	02/02/2023	09:06	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	02/02/2023	09:06	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	02/02/2023	09:06	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	02/02/2023	09:06	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	02/02/2023	09:06	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	02/02/2023	09:06	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	02/02/2023	09:06	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	02/02/2023	09:06	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	02/02/2023	09:06	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	02/02/2023	09:06	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	02/02/2023	09:06	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	02/02/2023	09:06	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	02/02/2023	09:06	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	02/02/2023	09:06	0.28	U	0.28	1.1	***0.55***
75-09-2	Methylene chloride	02/02/2023	09:06	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	02/02/2023	09:06	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	02/02/2023	09:06	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	02/02/2023	09:06	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	02/02/2023	09:06	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	02/02/2023	09:06	0.35	U	0.35	1.1	***0.55***
10061-02-6	trans-1,3-Dichloropropene	02/02/2023	09:06	0.56	U	0.56	2.1	***1.05***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1285803
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	268887	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W010323.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
79-01-6	Trichloroethene	02/02/2023	09:06	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	02/02/2023	09:06	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	02/02/2023	09:06	0.12	U	0.12	0.50	***0.25***

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

Analytical Method: EPA 8260C | SDG: 175065

Analytical Run #: 268886 | ICAL Calibration #: W010323.

CTLab #	1283669				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	97.0	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	105	80	119	

CTLab #	1283670				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	103	89	112	
Dibromofluoromethane	100	104	80	119	

CTLab #	1283671				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	106	80	119	

CTLab #	1283672				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	104	80	119	

CTLab #	1283673				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	105	80	119	

CTLab #	1283674				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	81	118	
Bromofluorobenzene	100	96.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	106	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

Analytical Method: EPA 8260C | SDG: 175065

Analytical Run #: 268886 | ICAL Calibration #: W010323.

CTLab #	1283675				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	105	80	119	
CTLab #	**1283676**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	105	80	119	
CTLab #	**1285429**	Sample Type:		Lab Control Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	108	80	119	
CTLab #	**1285430**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	70	120	
Bromofluorobenzene	100	98.0	70	120	
d8-Toluene	100	105	85	120	
Dibromofluoromethane	100	108	85	115	
CTLab #	**1285593**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	96.0	70	120	
Bromofluorobenzene	100	101	75	120	
d8-Toluene	100	104	85	120	
Dibromofluoromethane	100	107	85	115	
CTLab #	**1285755**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	50	150	
Bromofluorobenzene	100	101	50	150	
d8-Toluene	100	105	50	150	
Dibromofluoromethane	100	103	50	150	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Analytical Method:	EPA 8260C	SDG:	175065
Analytical Run #:	268886	ICAL Calibration #:	W010323.

CTLab #	1285771	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	97.0	70	120	
Bromofluorobenzene	100	98.0	70	120	
d8-Toluene	100	105	85	120	
Dibromofluoromethane	100	105	85	115	
CTLab #	**1285802**	Sample Type:		Normal Field Sample	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	70	120	
Bromofluorobenzene	100	97.0	75	120	
d8-Toluene	100	104	85	120	
Dibromofluoromethane	100	104	85	115	
CTLab #	**1285858**	Sample Type:		Matrix Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	104	80	119	
CTLab #	**1285889**	Sample Type:		Matrix Spike Duplicate	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	106	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1286175**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	96.0	50	150	
Bromofluorobenzene	100	99.0	50	150	
d8-Toluene	100	106	50	150	
Dibromofluoromethane	100	105	50	150	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	175065
Analytical Run #:	268887	ICAL Calibration #:	W010323.

CTLab #	1284314				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	106	80	119	
CTLab #	**1284315**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	104	80	119	
CTLab #	**1284316**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	102	80	119	
CTLab #	**1284317**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	102	80	119	
CTLab #	**1284318**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	106	80	119	
CTLab #	**1284319**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	104	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Analytical Method: EPA 8260C | SDG: 175065

Analytical Run #: 268887 | ICAL Calibration #: W010323.

CTLab #	1284320				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	100	80	119	
CTLab #	**1284321**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	96.0	85	114	
d8-Toluene	100	104	89	112	
Dibromofluoromethane	100	105	80	119	
CTLab #	**1284322**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1284323**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	102	80	119	
CTLab #	**1284324**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	102	80	119	
CTLab #	**1285431**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	70	120	
Bromofluorobenzene	100	98.0	70	120	
d8-Toluene	100	105	85	120	
Dibromofluoromethane	100	108	85	115	

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	175065
Analytical Run #:	268887	ICAL Calibration #:	W010323.

CTLab #	1285432	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	105	89	112	
Dibromofluoromethane	100	108	80	119	

CTLab #	1285594	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	96.0	70	120	
Bromofluorobenzene	100	101	75	120	
d8-Toluene	100	104	85	120	
Dibromofluoromethane	100	107	85	115	

CTLab #	1285756	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	50	150	
Bromofluorobenzene	100	101	50	150	
d8-Toluene	100	105	50	150	
Dibromofluoromethane	100	103	50	150	

CTLab #	1285772	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	97.0	70	120	
Bromofluorobenzene	100	98.0	70	120	
d8-Toluene	100	105	85	120	
Dibromofluoromethane	100	105	85	115	

CTLab #	1285803	Sample Type:	Normal Field Sample		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	70	120	
Bromofluorobenzene	100	97.0	75	120	
d8-Toluene	100	104	85	120	
Dibromofluoromethane	100	104	85	115	

CTLab #	1285963	Sample Type:	Matrix Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	96.0	85	114	
d8-Toluene	100	106	89	112	
Dibromofluoromethane	100	105	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	175065
Analytical Run #:	268887	ICAL Calibration #:	W010323.

CTLab #	1285964	Sample Type:	Matrix Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	96.0	85	114	
d8-Toluene	100	107	89	112	
Dibromofluoromethane	100	107	80	119	

CTLab #	1286156	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	96.0	50	150	
Bromofluorobenzene	100	99.0	50	150	
d8-Toluene	100	106	50	150	
Dibromofluoromethane	100	105	50	150	

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

13MW5

WATER VOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268886
Sample No.: 1285858
Parent Sample No.: 1283670
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	02/02/2023	11:05	74-131	11.9	BDL	10.0	119
1,1,2,2-Tetrachloroethane	02/02/2023	11:05	71-121	9.54	BDL	10.0	95
1,1,2-Trichloroethane	02/02/2023	11:05	80-119	10.9	BDL	10.0	109
1,1-Dichloroethane	02/02/2023	11:05	77-125	11.7	BDL	10.0	117
1,1-Dichloroethene	02/02/2023	11:05	71-131	12.0	BDL	10.0	120
1,2,3-Trichlorobenzene	02/02/2023	11:05	69-129	9.37	BDL	10.0	94
1,2,4-Trichlorobenzene	02/02/2023	11:05	69-130	9.31	BDL	10.0	93
1,2-Dibromo-3-chloropropane	02/02/2023	11:05	62-128	8.43	BDL	10.0	84
1,2-Dibromoethane	02/02/2023	11:05	77-121	9.70	BDL	10.0	97
1,2-Dichlorobenzene	02/02/2023	11:05	80-119	9.70	BDL	10.0	97
1,2-Dichloroethane	02/02/2023	11:05	73-128	11.0	BDL	10.0	110
1,2-Dichloropropane	02/02/2023	11:05	78-122	11.3	BDL	10.0	113
1,3-Dichlorobenzene	02/02/2023	11:05	80-119	9.69	BDL	10.0	97
1,4-Dioxane	02/02/2023	11:05	59-139	534	BDL	500	107
2-Butanone	02/02/2023	11:05	56-143	102	BDL	100	102
2-Hexanone	02/02/2023	11:05	57-139	100	BDL	100	100
4-Methyl-2-pentanone	02/02/2023	11:05	67-130	105	BDL	100	105
Acetone	02/02/2023	11:05	39-160	94.2	BDL	100	94
Benzene	02/02/2023	11:05	79-120	11.7	BDL	10.0	117
Bromochloromethane	02/02/2023	11:05	78-123	11.1	BDL	10.0	111
Bromodichloromethane	02/02/2023	11:05	79-125	10.9	BDL	10.0	109
Bromoform	02/02/2023	11:05	66-130	9.89	BDL	10.0	99
Bromomethane	02/02/2023	11:05	53-141	12.2	BDL	10.0	122
Carbon disulfide	02/02/2023	11:05	64-133	23.0	BDL	20.0	115
Carbon tetrachloride	02/02/2023	11:05	72-136	11.1	BDL	10.0	111
Chlorobenzene	02/02/2023	11:05	82-118	10.3	BDL	10.0	103
Chloroethane	02/02/2023	11:05	60-138	12.3	BDL	10.0	123
Chloroform	02/02/2023	11:05	79-124	10.8	BDL	10.0	108
Chloromethane	02/02/2023	11:05	50-139	11.0	BDL	10.0	110
cis-1,2-Dichloroethene	02/02/2023	11:05	78-123	11.4	BDL	10.0	114
cis-1,3-Dichloropropene	02/02/2023	11:05	75-124	10.9	BDL	10.0	109

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

13MW5

WATER VOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268886
Sample No.: 1285858
Parent Sample No.: 1283670
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Cyclohexane	02/02/2023	11:05	71-130	12.4	BDL	10.0	124
Dibromochloromethane	02/02/2023	11:05	74-126	9.56	BDL	10.0	96
Dichlorodifluoromethane	02/02/2023	11:05	32-152	11.5	BDL	10.0	115
Ethylbenzene	02/02/2023	11:05	79-121	10.8	BDL	10.0	108
Freon 113	02/02/2023	11:05	70-136	23.9	BDL	20.0	120
Isopropylbenzene	02/02/2023	11:05	72-131	10.9	BDL	10.0	109
m & p-Xylene	02/02/2023	11:05	80-121	21.6	BDL	20.0	108
Methyl Acetate	02/02/2023	11:05	56-136	10.2	BDL	10.0	102
Methyl tert-butyl ether	02/02/2023	11:05	71-124	10.5	BDL	10.0	105
Methylcyclohexane	02/02/2023	11:05	72-132	12.3	BDL	10.0	123
Methylene chloride	02/02/2023	11:05	74-124	11.3	BDL	10.0	113
o-Xylene	02/02/2023	11:05	78-122	10.3	BDL	10.0	103
Styrene	02/02/2023	11:05	78-123	10.4	BDL	10.0	104
Tetrachloroethene	02/02/2023	11:05	74-129	12.1	BDL	10.0	121
Toluene	02/02/2023	11:05	80-121	11.6	BDL	10.0	116
trans-1,2-Dichloroethene	02/02/2023	11:05	75-124	11.5	BDL	10.0	115
trans-1,3-Dichloropropene	02/02/2023	11:05	73-127	9.66	BDL	10.0	97
Trichloroethene	02/02/2023	11:05	79-123	11.4	BDL	10.0	114
Trichlorofluoromethane	02/02/2023	11:05	65-141	13.0	BDL	10.0	130
Vinyl chloride	02/02/2023	11:05	58-137	12.4	BDL	10.0	124

Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description

13MW5

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

Matrix: GROUND WATER
SDG No.: 175065

Analytical Method: RSK 175
Concentration Units: ug/L

Analytical Run #: 268888
Sample No.: 1285244
Parent Sample No.: 1283670

Analytical Prep Batch #: 128475
Analytical Preparation Date/Time: 01/31/2023 07:05

ICAL Calibration #: P4DG012323

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	01/31/2023	08:33	74-131	3.82	BDL	4.63	83
Ethene	01/31/2023	08:33	72-133	5.17	BDL	6.36	81
Methane	01/31/2023	08:33	73-125	1.82	BDL	2.23	82

Spike Recovery: 0 out of 3 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **48MW6**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268887
Sample No.: 1285963
Parent Sample No.: 1284316
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	02/02/2023	12:04	74-131	12.1	BDL	10.0	121
1,1,2,2-Tetrachloroethane	02/02/2023	12:04	71-121	9.00	BDL	10.0	90
1,1,2-Trichloroethane	02/02/2023	12:04	80-119	10.9	BDL	10.0	109
1,1-Dichloroethane	02/02/2023	12:04	77-125	12.5	1.6	10.0	109
1,1-Dichloroethene	02/02/2023	12:04	71-131	11.7	BDL	10.0	117
1,2,3-Trichlorobenzene	02/02/2023	12:04	69-129	9.03	BDL	10.0	90
1,2,4-Trichlorobenzene	02/02/2023	12:04	69-130	9.03	BDL	10.0	90
1,2-Dibromo-3-chloropropane	02/02/2023	12:04	62-128	9.23	BDL	10.0	92
1,2-Dibromoethane	02/02/2023	12:04	77-121	9.94	BDL	10.0	99
1,2-Dichlorobenzene	02/02/2023	12:04	80-119	9.14	BDL	10.0	91
1,2-Dichloroethane	02/02/2023	12:04	73-128	10.9	BDL	10.0	109
1,2-Dichloropropane	02/02/2023	12:04	78-122	11.2	BDL	10.0	112
1,3-Dichlorobenzene	02/02/2023	12:04	80-119	9.39	BDL	10.0	94
1,4-Dioxane	02/02/2023	12:04	59-139	535	BDL	500	107
2-Butanone	02/02/2023	12:04	56-143	103	BDL	100	103
2-Hexanone	02/02/2023	12:04	57-139	98.6	BDL	100	99
4-Methyl-2-pentanone	02/02/2023	12:04	67-130	105	BDL	100	105
Acetone	02/02/2023	12:04	39-160	97.6	BDL	100	98
Benzene	02/02/2023	12:04	79-120	11.4	BDL	10.0	114
Bromochloromethane	02/02/2023	12:04	78-123	10.9	BDL	10.0	109
Bromodichloromethane	02/02/2023	12:04	79-125	11.0	BDL	10.0	110
Bromoform	02/02/2023	12:04	66-130	9.65	BDL	10.0	96
Bromomethane	02/02/2023	12:04	53-141	12.2	BDL	10.0	122
Carbon disulfide	02/02/2023	12:04	64-133	22.8	BDL	20.0	114
Carbon tetrachloride	02/02/2023	12:04	72-136	11.2	BDL	10.0	112
Chlorobenzene	02/02/2023	12:04	82-118	10.1	BDL	10.0	101
Chloroethane	02/02/2023	12:04	60-138	11.7	BDL	10.0	117
Chloroform	02/02/2023	12:04	79-124	11.0	BDL	10.0	110
Chloromethane	02/02/2023	12:04	50-139	10.7	BDL	10.0	107
cis-1,2-Dichloroethene	02/02/2023	12:04	78-123	14.4	3.6	10.0	108
cis-1,3-Dichloropropene	02/02/2023	12:04	75-124	11.4	BDL	10.0	114

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **48MW6**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268887
Sample No.: 1285963
Parent Sample No.: 1284316
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Cyclohexane	02/02/2023	12:04	71-130	11.1	BDL	10.0	111
Dibromochloromethane	02/02/2023	12:04	74-126	9.86	BDL	10.0	99
Dichlorodifluoromethane	02/02/2023	12:04	32-152	9.92	BDL	10.0	99
Ethylbenzene	02/02/2023	12:04	79-121	10.4	BDL	10.0	104
Freon 113	02/02/2023	12:04	70-136	22.0	BDL	20.0	110
Isopropylbenzene	02/02/2023	12:04	72-131	10.6	BDL	10.0	106
m & p-Xylene	02/02/2023	12:04	80-121	20.9	BDL	20.0	104
Methyl Acetate	02/02/2023	12:04	56-136	9.86	BDL	10.0	99
Methyl tert-butyl ether	02/02/2023	12:04	71-124	10.8	BDL	10.0	108
Methylcyclohexane	02/02/2023	12:04	72-132	11.2	BDL	10.0	112
Methylene chloride	02/02/2023	12:04	74-124	11.1	BDL	10.0	111
o-Xylene	02/02/2023	12:04	78-122	9.91	BDL	10.0	99
Styrene	02/02/2023	12:04	78-123	10.1	BDL	10.0	101
Tetrachloroethene	02/02/2023	12:04	74-129	11.5	BDL	10.0	115
Toluene	02/02/2023	12:04	80-121	11.3	BDL	10.0	113
trans-1,2-Dichloroethene	02/02/2023	12:04	75-124	11.4	BDL	10.0	114
trans-1,3-Dichloropropene	02/02/2023	12:04	73-127	10.2	BDL	10.0	102
Trichloroethene	02/02/2023	12:04	79-123	12.8	1.8	10.0	110
Trichlorofluoromethane	02/02/2023	12:04	65-141	12.1	BDL	10.0	121
Vinyl chloride	02/02/2023	12:04	58-137	11.5	BDL	10.0	115

Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

13MW5

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268886
Sample No.: 1285889
Parent Sample No.: 1285858
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
1,1,1-Trichloroethane	02/02/2023	11:36	11.6	10.0	116	3	74-131	20
1,1,2,2-Tetrachloroethane	02/02/2023	11:36	9.11	10.0	91	5	71-121	20
1,1,2-Trichloroethane	02/02/2023	11:36	10.3	10.0	103	5	80-119	20
1,1-Dichloroethane	02/02/2023	11:36	10.4	10.0	104	12	77-125	20
1,1-Dichloroethene	02/02/2023	11:36	11.1	10.0	111	8	71-131	20
1,2,3-Trichlorobenzene	02/02/2023	11:36	8.86	10.0	89	6	69-129	20
1,2,4-Trichlorobenzene	02/02/2023	11:36	8.86	10.0	89	5	69-130	20
1,2-Dibromo-3-chloropropane	02/02/2023	11:36	8.50	10.0	85	1	62-128	20
1,2-Dibromoethane	02/02/2023	11:36	9.10	10.0	91	6	77-121	20
1,2-Dichlorobenzene	02/02/2023	11:36	8.90	10.0	89	9	80-119	20
1,2-Dichloroethane	02/02/2023	11:36	9.98	10.0	100	9	73-128	20
1,2-Dichloropropane	02/02/2023	11:36	10.0	10.0	100	12	78-122	20
1,3-Dichlorobenzene	02/02/2023	11:36	9.08	10.0	91	7	80-119	20
1,4-Dioxane	02/02/2023	11:36	490	500	98	9	59-139	20
2-Butanone	02/02/2023	11:36	96.8	100	97	5	56-143	20
2-Hexanone	02/02/2023	11:36	95.5	100	96	5	57-139	20
4-Methyl-2-pentanone	02/02/2023	11:36	103	100	103	2	67-130	20
Acetone	02/02/2023	11:36	91.8	100	92	3	39-160	20
Benzene	02/02/2023	11:36	10.7	10.0	107	9	79-120	20
Bromochloromethane	02/02/2023	11:36	10.3	10.0	103	7	78-123	20
Bromodichloromethane	02/02/2023	11:36	10.4	10.0	104	5	79-125	20
Bromoform	02/02/2023	11:36	9.30	10.0	93	6	66-130	20
Bromomethane	02/02/2023	11:36	11.6	10.0	116	5	53-141	20
Carbon disulfide	02/02/2023	11:36	21.4	20.0	107	8	64-133	20
Carbon tetrachloride	02/02/2023	11:36	10.7	10.0	107	4	72-136	20
Chlorobenzene	02/02/2023	11:36	9.53	10.0	95	8	82-118	20
Chloroethane	02/02/2023	11:36	11.4	10.0	114	7	60-138	20
Chloroform	02/02/2023	11:36	10.2	10.0	102	6	79-124	20
Chloromethane	02/02/2023	11:36	10.1	10.0	101	8	50-139	20
cis-1,2-Dichloroethene	02/02/2023	11:36	10.2	10.0	102	12	78-123	20
cis-1,3-Dichloropropene	02/02/2023	11:36	10.4	10.0	104	4	75-124	20

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268886
Sample No.: 1285889
Parent Sample No.: 1285858
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Cyclohexane	02/02/2023	11:36	11.7	10.0	117	6	71-130	20
Dibromochloromethane	02/02/2023	11:36	9.14	10.0	91	5	74-126	20
Dichlorodifluoromethane	02/02/2023	11:36	11.2	10.0	112	3	32-152	20
Ethylbenzene	02/02/2023	11:36	10.0	10.0	100	7	79-121	20
Freon 113	02/02/2023	11:36	23.4	20.0	117	2	70-136	20
Isopropylbenzene	02/02/2023	11:36	10.1	10.0	101	8	72-131	20
m & p-Xylene	02/02/2023	11:36	19.5	20.0	98	10	80-121	20
Methyl Acetate	02/02/2023	11:36	9.86	10.0	99	3	56-136	20
Methyl tert-butyl ether	02/02/2023	11:36	9.94	10.0	99	6	71-124	20
Methylcyclohexane	02/02/2023	11:36	11.9	10.0	119	3	72-132	20
Methylene chloride	02/02/2023	11:36	10.1	10.0	101	11	74-124	20
o-Xylene	02/02/2023	11:36	9.41	10.0	94	9	78-122	20
Styrene	02/02/2023	11:36	9.57	10.0	96	8	78-123	20
Tetrachloroethene	02/02/2023	11:36	11.0	10.0	110	9	74-129	20
Toluene	02/02/2023	11:36	10.7	10.0	107	8	80-121	20
trans-1,2-Dichloroethene	02/02/2023	11:36	10.7	10.0	107	7	75-124	20
trans-1,3-Dichloropropene	02/02/2023	11:36	9.50	10.0	95	2	73-127	20
Trichloroethene	02/02/2023	11:36	10.5	10.0	105	9	79-123	20
Trichlorofluoromethane	02/02/2023	11:36	12.3	10.0	123	6	65-141	20
Vinyl chloride	02/02/2023	11:36	11.4	10.0	114	8	58-137	20

RPD or Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description

13MW5

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

Matrix: GROUND WATER
SDG No.: 175065

Analytical Method: RSK 175
Concentration Units: ug/L

Analytical Run #: 268888
Sample No.: 1285245
Parent Sample No.: 1285244

Analytical Prep Batch #: 128475
Analytical Preparation Date/Time: 01/31/2023 07:05

ICAL Calibration #: P4DG012323

Analyte	Analysis Date/Time	Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Ethane	01/31/2023 08:42	3.58	4.63	77	7	74-131	30
Ethene	01/31/2023 08:42	4.78	6.36	75	8	72-133	30
Methane	01/31/2023 08:42	1.68	2.23	75	8	73-125	30

RPD or Spike Recovery: 0 out of 3 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **48MW6**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268887
Sample No.: 1285964
Parent Sample No.: 1285963
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
1,1,1-Trichloroethane	02/02/2023	12:35	12.8	10.0	128	5	74-131	20
1,1,2,2-Tetrachloroethane	02/02/2023	12:35	9.43	10.0	94	5	71-121	20
1,1,2-Trichloroethane	02/02/2023	12:35	11.1	10.0	111	2	80-119	20
1,1-Dichloroethane	02/02/2023	12:35	13.0	10.0	114	4	77-125	20
1,1-Dichloroethene	02/02/2023	12:35	12.2	10.0	122	4	71-131	20
1,2,3-Trichlorobenzene	02/02/2023	12:35	9.37	10.0	94	4	69-129	20
1,2,4-Trichlorobenzene	02/02/2023	12:35	9.67	10.0	97	7	69-130	20
1,2-Dibromo-3-chloropropane	02/02/2023	12:35	10.00	10.0	100	8	62-128	20
1,2-Dibromoethane	02/02/2023	12:35	9.93	10.0	99	0	77-121	20
1,2-Dichlorobenzene	02/02/2023	12:35	9.44	10.0	94	3	80-119	20
1,2-Dichloroethane	02/02/2023	12:35	11.2	10.0	112	3	73-128	20
1,2-Dichloropropane	02/02/2023	12:35	11.5	10.0	115	3	78-122	20
1,3-Dichlorobenzene	02/02/2023	12:35	9.57	10.0	96	2	80-119	20
1,4-Dioxane	02/02/2023	12:35	526	500	105	2	59-139	20
2-Butanone	02/02/2023	12:35	107	100	107	4	56-143	20
2-Hexanone	02/02/2023	12:35	101	100	101	2	57-139	20
4-Methyl-2-pentanone	02/02/2023	12:35	110	100	110	5	67-130	20
Acetone	02/02/2023	12:35	99.4	100	99	2	39-160	20
Benzene	02/02/2023	12:35	11.8	10.0	118	3	79-120	20
Bromochloromethane	02/02/2023	12:35	11.3	10.0	113	3	78-123	20
Bromodichloromethane	02/02/2023	12:35	11.4	10.0	114	3	79-125	20
Bromoform	02/02/2023	12:35	9.69	10.0	97	0	66-130	20
Bromomethane	02/02/2023	12:35	12.3	10.0	123	0	53-141	20
Carbon disulfide	02/02/2023	12:35	24.1	20.0	120	6	64-133	20
Carbon tetrachloride	02/02/2023	12:35	12.1	10.0	121	8	72-136	20
Chlorobenzene	02/02/2023	12:35	9.82	10.0	98	3	82-118	20
Chloroethane	02/02/2023	12:35	12.4	10.0	124	6	60-138	20
Chloroform	02/02/2023	12:35	11.3	10.0	113	3	79-124	20
Chloromethane	02/02/2023	12:35	11.2	10.0	112	4	50-139	20
cis-1,2-Dichloroethene	02/02/2023	12:35	14.8	10.0	112	3	78-123	20
cis-1,3-Dichloropropene	02/02/2023	12:35	11.9	10.0	119	4	75-124	20

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **48MW6**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 268887
Sample No.: 1285964
Parent Sample No.: 1285963
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Cyclohexane	02/02/2023	12:35	12.0	10.0	120	8	71-130	20
Dibromochloromethane	02/02/2023	12:35	9.79	10.0	98	1	74-126	20
Dichlorodifluoromethane	02/02/2023	12:35	11.1	10.0	111	11	32-152	20
Ethylbenzene	02/02/2023	12:35	10.5	10.0	105	1	79-121	20
Freon 113	02/02/2023	12:35	23.5	20.0	118	7	70-136	20
Isopropylbenzene	02/02/2023	12:35	10.9	10.0	109	3	72-131	20
m & p-Xylene	02/02/2023	12:35	20.6	20.0	103	1	80-121	20
Methyl Acetate	02/02/2023	12:35	10.4	10.0	104	5	56-136	20
Methyl tert-butyl ether	02/02/2023	12:35	11.2	10.0	112	4	71-124	20
Methylcyclohexane	02/02/2023	12:35	12.1	10.0	121	8	72-132	20
Methylene chloride	02/02/2023	12:35	11.4	10.0	114	3	74-124	20
o-Xylene	02/02/2023	12:35	10.2	10.0	102	3	78-122	20
Styrene	02/02/2023	12:35	9.83	10.0	98	2	78-123	20
Tetrachloroethene	02/02/2023	12:35	12.1	10.0	121	5	74-129	20
Toluene	02/02/2023	12:35	11.7	10.0	117	3	80-121	20
trans-1,2-Dichloroethene	02/02/2023	12:35	11.7	10.0	117	2	75-124	20
trans-1,3-Dichloropropene	02/02/2023	12:35	10.8	10.0	108	5	73-127	20
Trichloroethene	02/02/2023	12:35	13.2	10.0	114	3	79-123	20
Trichlorofluoromethane	02/02/2023	12:35	12.8	10.0	128	6	65-141	20
Vinyl chloride	02/02/2023	12:35	12.3	10.0	123	7	58-137	20

RPD or Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Sample No.: 1284327
SDG No.: 175065
Analytical Method: RSK 175
Concentration Units: ug/L

Sample No.: 1284327
Parent Sample No.: 0
Analytical Prep Batch #: 128475
Analytical Preparation Date/Time: 01/31/2023 07:05
Analytical Run #: 268888
ICAL Calibration #: P4DG012323

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	01/31/2023	08:16	74-131	4.48		4.63	97
Ethene	01/31/2023	08:16	72-133	6.03		6.36	95
Methane	01/31/2023	08:16	73-125	2.41		2.23	108

Spike Recovery: 0 out of 3 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1284330
SDG No.: 175065
Analytical Method: RSK 175
Concentration Units: ug/L

Sample No.: 1284330
Parent Sample No.: 0
Analytical Prep Batch #: 128476
Analytical Preparation Date/Time: 01/31/2023 07:15
Analytical Run #: 268889
ICAL Calibration #: P4DG012323

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	02/01/2023	09:35	74-131	4.92		4.75	104
Ethene	02/01/2023	09:35	72-133	6.87		6.77	101
Methane	02/01/2023	09:35	73-125	2.42		2.28	106

Spike Recovery: 0 out of 3 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Sample No.: 1285429
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1285429
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268886
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	02/01/2023	09:47	74-131	11.6		10.0	116
1,1,2,2-Tetrachloroethane	02/01/2023	09:47	71-121	9.82		10.0	98
1,1,2-Trichloroethane	02/01/2023	09:47	80-119	10.9		10.0	109
1,1-Dichloroethane	02/01/2023	09:47	77-125	11.1		10.0	111
1,1-Dichloroethene	02/01/2023	09:47	71-131	11.7		10.0	117
1,2,3-Trichlorobenzene	02/01/2023	09:47	69-129	9.56		10.0	96
1,2,4-Trichlorobenzene	02/01/2023	09:47	69-130	9.32		10.0	93
1,2-Dibromo-3-chloropropane	02/01/2023	09:47	62-128	9.19		10.0	92
1,2-Dibromoethane	02/01/2023	09:47	77-121	10.2		10.0	102
1,2-Dichlorobenzene	02/01/2023	09:47	80-119	9.65		10.0	96
1,2-Dichloroethane	02/01/2023	09:47	73-128	10.6		10.0	106
1,2-Dichloropropane	02/01/2023	09:47	78-122	10.7		10.0	107
1,3-Dichlorobenzene	02/01/2023	09:47	80-119	9.74		10.0	97
2-Butanone	02/01/2023	09:47	56-143	103		100	103
2-Hexanone	02/01/2023	09:47	57-139	97.9		100	98
4-Methyl-2-pentanone	02/01/2023	09:47	67-130	101		100	101
Acetone	02/01/2023	09:47	39-160	113		100	113
Benzene	02/01/2023	09:47	79-120	11.1		10.0	111
Bromochloromethane	02/01/2023	09:47	78-123	10.5		10.0	105
Bromodichloromethane	02/01/2023	09:47	79-125	11.4		10.0	114
Bromoform	02/01/2023	09:47	66-130	10.7		10.0	107
Bromomethane	02/01/2023	09:47	53-141	12.0		10.0	120
Carbon disulfide	02/01/2023	09:47	64-133	23.3		20.0	116
Carbon tetrachloride	02/01/2023	09:47	72-136	11.3		10.0	113
Chlorobenzene	02/01/2023	09:47	82-118	10.1		10.0	101
Chloroethane	02/01/2023	09:47	60-138	11.6		10.0	116
Chloroform	02/01/2023	09:47	79-124	10.7		10.0	107
Chloromethane	02/01/2023	09:47	50-139	10.3		10.0	103

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Sample No.: 1285429
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1285429
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268886
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
cis-1,2-Dichloroethene	02/01/2023	09:47	78-123	10.6		10.0	106
cis-1,3-Dichloropropene	02/01/2023	09:47	75-124	11.5		10.0	115
Cyclohexane	02/01/2023	09:47	71-130	11.9		10.0	119
Dibromochloromethane	02/01/2023	09:47	74-126	10.5		10.0	105
Dichlorodifluoromethane	02/01/2023	09:47	32-152	11.3		10.0	113
Ethylbenzene	02/01/2023	09:47	79-121	10.6		10.0	106
Freon 113	02/01/2023	09:47	70-136	24.4		20.0	122
Isopropylbenzene	02/01/2023	09:47	72-131	10.8		10.0	108
m & p-Xylene	02/01/2023	09:47	80-121	20.6		20.0	103
Methyl Acetate	02/01/2023	09:47	56-136	9.44		10.0	94
Methyl tert-butyl ether	02/01/2023	09:47	71-124	10.3		10.0	103
Methylcyclohexane	02/01/2023	09:47	72-132	12.2		10.0	122
Methylene chloride	02/01/2023	09:47	74-124	11.0		10.0	110
o-Xylene	02/01/2023	09:47	78-122	10.3		10.0	103
Styrene	02/01/2023	09:47	78-123	10.4		10.0	104
Tetrachloroethene	02/01/2023	09:47	74-129	11.3		10.0	113
Toluene	02/01/2023	09:47	80-121	11.2		10.0	112
trans-1,2-Dichloroethene	02/01/2023	09:47	75-124	11.2		10.0	112
trans-1,3-Dichloropropene	02/01/2023	09:47	73-127	10.1		10.0	101
Trichloroethene	02/01/2023	09:47	79-123	11.1		10.0	111
Trichlorofluoromethane	02/01/2023	09:47	65-141	12.3		10.0	123
Vinyl chloride	02/01/2023	09:47	58-137	11.7		10.0	117

Spike Recovery: 0 out of 50 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1285432
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1285432
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268887
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	02/01/2023	09:47	74-131	11.6		10.0	116
1,1,2,2-Tetrachloroethane	02/01/2023	09:47	71-121	9.82		10.0	98
1,1,2-Trichloroethane	02/01/2023	09:47	80-119	10.9		10.0	109
1,1-Dichloroethane	02/01/2023	09:47	77-125	11.1		10.0	111
1,1-Dichloroethene	02/01/2023	09:47	71-131	11.7		10.0	117
1,2,3-Trichlorobenzene	02/01/2023	09:47	69-129	9.56		10.0	96
1,2,4-Trichlorobenzene	02/01/2023	09:47	69-130	9.32		10.0	93
1,2-Dibromo-3-chloropropane	02/01/2023	09:47	62-128	9.19		10.0	92
1,2-Dibromoethane	02/01/2023	09:47	77-121	10.2		10.0	102
1,2-Dichlorobenzene	02/01/2023	09:47	80-119	9.65		10.0	96
1,2-Dichloroethane	02/01/2023	09:47	73-128	10.6		10.0	106
1,2-Dichloropropane	02/01/2023	09:47	78-122	10.7		10.0	107
1,3-Dichlorobenzene	02/01/2023	09:47	80-119	9.74		10.0	97
2-Butanone	02/01/2023	09:47	56-143	103		100	103
2-Hexanone	02/01/2023	09:47	57-139	97.9		100	98
4-Methyl-2-pentanone	02/01/2023	09:47	67-130	101		100	101
Acetone	02/01/2023	09:47	39-160	113		100	113
Benzene	02/01/2023	09:47	79-120	11.1		10.0	111
Bromochloromethane	02/01/2023	09:47	78-123	10.5		10.0	105
Bromodichloromethane	02/01/2023	09:47	79-125	11.4		10.0	114
Bromoform	02/01/2023	09:47	66-130	10.7		10.0	107
Bromomethane	02/01/2023	09:47	53-141	12.0		10.0	120
Carbon disulfide	02/01/2023	09:47	64-133	23.3		20.0	116
Carbon tetrachloride	02/01/2023	09:47	72-136	11.3		10.0	113
Chlorobenzene	02/01/2023	09:47	82-118	10.1		10.0	101
Chloroethane	02/01/2023	09:47	60-138	11.6		10.0	116
Chloroform	02/01/2023	09:47	79-124	10.7		10.0	107
Chloromethane	02/01/2023	09:47	50-139	10.3		10.0	103

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1285432
SDG No.: 175065
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1285432
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268887
ICAL Calibration #: W010323.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
cis-1,2-Dichloroethene	02/01/2023	09:47	78-123	10.6		10.0	106
cis-1,3-Dichloropropene	02/01/2023	09:47	75-124	11.5		10.0	115
Cyclohexane	02/01/2023	09:47	71-130	11.9		10.0	119
Dibromochloromethane	02/01/2023	09:47	74-126	10.5		10.0	105
Dichlorodifluoromethane	02/01/2023	09:47	32-152	11.3		10.0	113
Ethylbenzene	02/01/2023	09:47	79-121	10.6		10.0	106
Freon 113	02/01/2023	09:47	70-136	24.4		20.0	122
Isopropylbenzene	02/01/2023	09:47	72-131	10.8		10.0	108
m & p-Xylene	02/01/2023	09:47	80-121	20.6		20.0	103
Methyl Acetate	02/01/2023	09:47	56-136	9.44		10.0	94
Methyl tert-butyl ether	02/01/2023	09:47	71-124	10.3		10.0	103
Methylcyclohexane	02/01/2023	09:47	72-132	12.2		10.0	122
Methylene chloride	02/01/2023	09:47	74-124	11.0		10.0	110
o-Xylene	02/01/2023	09:47	78-122	10.3		10.0	103
Styrene	02/01/2023	09:47	78-123	10.4		10.0	104
Tetrachloroethene	02/01/2023	09:47	74-129	11.3		10.0	113
Toluene	02/01/2023	09:47	80-121	11.2		10.0	112
trans-1,2-Dichloroethene	02/01/2023	09:47	75-124	11.2		10.0	112
trans-1,3-Dichloropropene	02/01/2023	09:47	73-127	10.1		10.0	101
Trichloroethene	02/01/2023	09:47	79-123	11.1		10.0	111
Trichlorofluoromethane	02/01/2023	09:47	65-141	12.3		10.0	123
Vinyl chloride	02/01/2023	09:47	58-137	11.7		10.0	117

Spike Recovery: 0 out of 50 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Sample ID:	1284326	SDG No.:	175065
Matrix:	LIQUID	Date Extracted:	01/31/2023
Date Analyzed:	01/31/2023	Time Analyzed:	08:22
Analytical Method:	RSK 175	Extraction Method:	METHOD
Analytical Run #:	268888	Extraction Batch #:	128475
		ICAL Calibration #:	P4DG012323

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	CCV	1285246	01/31/2023 08:09	P4DG012323
2	LCSW	1284327	01/31/2023 08:16	P4DG012323
3	MBW	1284326	01/31/2023 08:22	P4DG012323
4	13MW5	1283670	01/31/2023 08:29	P4DG012323
5	13MW5MSW	1285244	01/31/2023 08:33	P4DG012323
6	13MW5MSDW	1285245	01/31/2023 08:42	P4DG012323
7	13MW4	1283671	01/31/2023 08:46	P4DG012323
8	13MW3	1283672	01/31/2023 08:56	P4DG012323
9	49MW04	1283673	01/31/2023 09:02	P4DG012323
10	49TW04	1283674	01/31/2023 09:51	P4DG012323
11	13MW2	1283675	01/31/2023 10:01	P4DG012323
12	49MW05	1283676	01/31/2023 10:10	P4DG012323
13	CCV	1285247	01/31/2023 10:17	P4DG012323

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample ID:	1284329	SDG No.:	175065
Matrix:	LIQUID	Date Extracted:	01/31/2023
Date Analyzed:	02/01/2023	Time Analyzed:	09:43
Analytical Method:	RSK 175	Extraction Method:	METHOD
Analytical Run #:	268889	Extraction Batch #:	128476
		ICAL Calibration #:	P4DG012323

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	CCV	1285535	02/01/2023 09:32	P4DG012323
2	LCSW	1284330	02/01/2023 09:35	P4DG012323
3	MBW	1284329	02/01/2023 09:43	P4DG012323
4	48MW7	1284315	02/01/2023 09:50	P4DG012323
5	48MW6	1284316	02/01/2023 09:54	P4DG012323
6	48MW1	1284317	02/01/2023 09:58	P4DG012323
7	48MW1-EQB	1284318	02/01/2023 10:03	P4DG012323
8	49MW03	1284319	02/01/2023 10:06	P4DG012323
9	48MW2	1284320	02/01/2023 10:10	P4DG012323
10	48MW3	1284321	02/01/2023 10:17	P4DG012323
11	48TW3	1284322	02/01/2023 10:48	P4DG012323
12	49MW01	1284323	02/01/2023 11:19	P4DG012323
13	50MW2	1284324	02/01/2023 11:23	P4DG012323
14	CCV	1285537	02/01/2023 11:32	P4DG012323

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Sample ID:	1285593	SDG No.:	175065
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	02/01/2023	Time Analyzed:	10:46
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	268886	Extraction Batch #:	0
		ICAL Calibration #:	W010323.

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	1285775	02/01/2023 09:04	
2	LCSW	1285429	02/01/2023 09:47	W010323.
3	CCV	1285430	02/01/2023 09:47	W010323.
4	MBW	1285593	02/01/2023 10:46	W010323.
5	TB-1	1283669	02/01/2023 11:16	W010323.
6	13MW5	1283670	02/01/2023 12:14	W010323.
7	13MW4	1283671	02/01/2023 12:44	W010323.
8	13MW3	1283672	02/01/2023 13:14	W010323.
9	49MW04	1283673	02/01/2023 13:44	W010323.
10	49TW04	1283674	02/01/2023 14:12	W010323.
11	13MW2	1283675	02/01/2023 14:43	W010323.
12	49MW05	1283676	02/01/2023 15:14	W010323.
13	CCVF	1285755	02/01/2023 20:39	W010323.
14	BFB	1285777	02/02/2023 07:22	
15	CCV	1285771	02/02/2023 08:07	W010323.
16	CCB	1285802	02/02/2023 09:06	W010323.
17	13MW5MSW	1285858	02/02/2023 11:05	W010323.
18	13MW5MSDW	1285889	02/02/2023 11:36	W010323.
19	CCVF	1286175	02/02/2023 13:04	W010323.

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample ID:	1285594	SDG No.:	175065
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	02/01/2023	Time Analyzed:	10:46
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	268887	Extraction Batch #:	0
		ICAL Calibration #:	W010323.

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	1285776	02/01/2023 09:04	
2	CCV	1285431	02/01/2023 09:47	W010323.
3	LCSW	1285432	02/01/2023 09:47	W010323.
4	MBW	1285594	02/01/2023 10:46	W010323.
5	TB-2	1284314	02/01/2023 11:44	W010323.
6	48MW7	1284315	02/01/2023 15:42	W010323.
7	48MW6	1284316	02/01/2023 16:13	W010323.
8	48MW1	1284317	02/01/2023 16:42	W010323.
9	48MW1-EQB	1284318	02/01/2023 17:12	W010323.
10	49MW03	1284319	02/01/2023 17:43	W010323.
11	48MW2	1284320	02/01/2023 18:11	W010323.
12	48MW3	1284321	02/01/2023 18:42	W010323.
13	48TW3	1284322	02/01/2023 19:11	W010323.
14	49MW01	1284323	02/01/2023 19:40	W010323.
15	50MW2	1284324	02/01/2023 20:10	W010323.
16	CCVF	1285756	02/01/2023 20:39	W010323.
17	BFB	1285778	02/02/2023 07:22	
18	CCV	1285772	02/02/2023 08:07	W010323.
19	CCB	1285803	02/02/2023 09:06	W010323.
20	48MW6MSW	1285963	02/02/2023 12:04	W010323.
21	48MW6MSDW	1285964	02/02/2023 12:35	W010323.
22	CCVF	1286156	02/02/2023 13:04	W010323.

Data File : C:\INSTARCH\DATA\JAN0323\BFB1.D Vial: 1
Acq On : 3 Jan 2023 10:41 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	12195	PASS
75	95	30	60	46.9	29264	PASS
95	95	100	100	100.0	62421	PASS
96	95	5	9	5.2	3216	PASS
173	174	0.00	2	1.3	738	PASS
174	95	50	100	92.7	57848	PASS
175	174	5	9	6.8	3940	PASS
176	174	95	101	95.7	55356	PASS
177	176	5	9	8.1	4479	PASS

W010323.M Wed Jan 04 08:14:54 2023

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\JAN0323\BFB1.D
Injection Date : 3 Jan 2023 Log Time Period (hrs) : ALL
Injection Time : 10:41 Total files within period : 21
Sample Directory : C:\INSTARCH\DATA\JAN0323\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	3 Jan 2023	11:55
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	3 Jan 2023	12:54
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	3 Jan 2023	13:24
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	3 Jan 2023	13:53
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	3 Jan 2023	14:23
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	3 Jan 2023	14:53
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	3 Jan 2023	15:22
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	3 Jan 2023	15:52
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	3 Jan 2023	16:21
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	3 Jan 2023	17:20
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	3 Jan 2023	17:49
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2, 5.0 mL Purged	3 Jan 2023	19:46

Data File : C:\Instarch\Data\FEB0123\BFB1.D Vial: 1
Acq On : 1 Feb 2023 9:04 Operator: DGS-RLD
Sample : 268886,BFB, Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.669 to 4.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	10076	PASS
75	95	30	60	51.1	28162	PASS
95	95	100	100	100.0	55154	PASS
96	95	5	9	6.7	3722	PASS
173	174	0.00	2	0.7	340	PASS
174	95	50	100	85.7	47250	PASS
175	174	5	9	6.6	3112	PASS
176	174	95	101	100.7	47590	PASS
177	176	5	9	6.3	3009	PASS

W010323.M Fri Feb 03 09:35:39 2023

Data File : C:\Instarch\Data\FEB0123\BFB2.D Vial: 26
Acq On : 2 Feb 2023 7:22 Operator: DGS-RLD
Sample : 268886,BFB, Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.657 to 4.669 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	9003	PASS
75	95	30	60	48.6	25250	PASS
95	95	100	100	100.0	52002	PASS
96	95	5	9	6.0	3125	PASS
173	174	0.00	2	0.5	220	PASS
174	95	50	100	86.4	44914	PASS
175	174	5	9	8.0	3588	PASS
176	174	95	101	100.4	45077	PASS
177	176	5	9	5.8	2619	PASS

W010323.M Fri Feb 03 09:36:51 2023

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\FEB0123\BFB1.D
Injection Date : 1 Feb 2023 Log Time Period (hrs) : ALL
Injection Time : 09:04 Total files within period : 37
Sample Directory : C:\INSTARCH\DATA\FEB0123\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	268886,LCSW, 10.0/100 ug/L, 5.0 m	1 Feb 2023	09:47
MB1	1.00	1.00	1.00	268886,MBW, pH<2,5.0 mL DI H20 P	1 Feb 2023	10:46
1283669	1.00	1.00	1.00	268886,1283669, pH<2,5.0 mL Purged	1 Feb 2023	11:16
1284314	1.00	1.00	1.00	268887,1284314, pH<2,5.0 mL Purged	1 Feb 2023	11:44
1283670	1.00	1.00	1.00	268886,1283670, pH<2,5.0 mL Purged	1 Feb 2023	12:14
1283671	1.00	1.00	1.00	268886,1283671, pH<2,5.0 mL Purged	1 Feb 2023	12:44
1283672	1.00	1.00	1.00	268886,1283672, pH<2,5.0 mL Purged	1 Feb 2023	13:14
1283673	1.00	1.00	1.00	268886,1283673, pH<2,5.0 mL Purged	1 Feb 2023	13:44
1283674	1.00	1.00	1.00	268886,1283674, pH<2,5.0 mL Purged	1 Feb 2023	14:12
1283675	1.00	1.00	1.00	268886,1283675, pH<2,5.0 mL Purged	1 Feb 2023	14:43
1283676	1.00	1.00	1.00	268886,1283676, pH<2,5.0 mL Purged	1 Feb 2023	15:14
1284315	1.00	1.00	1.00	268887,1284315, pH 7,5.0 mL Purged	1 Feb 2023	15:42
1284316	1.00	1.00	1.00	268887,1284316, pH<2,5.0 mL Purged	1 Feb 2023	16:13
1284317	1.00	1.00	1.00	268887,1284317, pH<2,5.0 mL Purged	1 Feb 2023	16:42
1284318	1.00	1.00	1.00	268887,1284318, pH<2,5.0 mL Purged	1 Feb 2023	17:12
1284319	1.00	1.00	1.00	268887,1284319, pH<2,5.0 mL Purged	1 Feb 2023	17:43
1284320	1.00	1.00	1.00	268887,1284320,	1 Feb 2023	18:11

				pH<2,5.0 mL Purged	
1284321	1.00	1.00	1.00	268887,1284321,	1 Feb 2023 18:42
				pH<2,5.0 mL Purged	
1284322	1.00	1.00	1.00	268887,1284322,	1 Feb 2023 19:11
				pH<2,5.0 mL Purged	
1284323	1.00	1.00	1.00	268887,1284323,	1 Feb 2023 19:40
				pH<2,5.0 mL Purged	
1284324	1.00	1.00	1.00	268887,1284324,	1 Feb 2023 20:10
				pH<2,5.0 mL Purged	
CCVF1	1.00	1.00	1.00	268886,CCVF,	1 Feb 2023 20:39
				10.0/100 ug/L, 5.0 m	
BFB2	1.00	1.00	1.00	268886,BFB,	2 Feb 2023 07:22
				50 ng Inj.	
CCV-LCS2	1.00	1.00	1.00	268886,LCSW,	2 Feb 2023 08:07
				10.0/100 ug/L, 5.0 m	
CCB-MB2	1.00	1.00	1.00	268886,MBW,	2 Feb 2023 09:06
				pH<2,5.0 mL DI H20 P	
1283670M	1.00	1.00	1.00	268886,MSW1283670,	2 Feb 2023 11:05
				10.0/100 ug/L,pH<2,5	
1283670S	1.00	1.00	1.00	268886,MSDW1283670,	2 Feb 2023 11:36
				10.0/100 ug/L,pH<2,5	
1284316M	1.00	1.00	1.00	268887,MSW1284316,	2 Feb 2023 12:04
				10.0/100 ug/L,pH<2,5	
1284316S	1.00	1.00	1.00	268887,MSDW1284316,	2 Feb 2023 12:35
				10.0/100 ug/L,pH<2,5	
VF2-LCD1	1.00	1.00	1.00	268886,CCVF,	2 Feb 2023 13:04
				10.0/100 ug/L, 5.0 m	

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 3 Jan 2023
Instrument ID : VMS3 Time Analyzed : 2:23 pm
GC Column : DB-624 UI ID : VMS3(mm) Heated Purge (Y:N) : N

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1316944	7.70	1016902	11.62	517486	14.91
UPPER LIMIT	2633888	8.20	2033804	12.12	1034972	15.41
LOWER LIMIT	658472	7.20	508451	11.12	258743	14.41
File ID Sample						
1283669 268886,12	1043320	7.70	875643	11.61	444160	14.91
1283670 268886,12	1065386	7.70	895255	11.61	458204	14.91
1283670M 268886,MS	1116680	7.70	961203	11.61	519112	14.91
1283670S 268886,MS	1139544	7.70	997735	11.62	524235	14.91
1283671 268886,12	1035835	7.70	888736	11.61	453957	14.91
1283672 268886,12	1039742	7.70	885413	11.61	452768	14.91
1283673 268886,12	1053854	7.70	895398	11.61	455037	14.91
1283674 268886,12	1036263	7.70	896297	11.61	453974	14.91
1283675 268886,12	1053391	7.70	885629	11.61	451334	14.91
1283676 268886,12	1040053	7.70	883199	11.61	446174	14.91
1284314 268887,12	1050518	7.70	899042	11.61	450285	14.91
1284315 268887,12	1120326	7.70	966054	11.61	495677	14.91
1284315M 268887,MS	1123661	7.70	973113	11.61	529055	14.91
1284315S 268887,MS	1128144	7.70	1011058	11.61	534721	14.91
1284316 268887,12	1065337	7.70	902046	11.61	462290	14.91
1284317 268887,12	1048266	7.70	903969	11.61	456696	14.91
1284318 268887,12	1053628	7.70	898204	11.61	458492	14.91
1284319 268887,12	1044542	7.70	904347	11.61	462808	14.91
1284320 268887,12	1063972	7.70	912823	11.61	461315	14.91
1284321 268887,12	1064098	7.70	918443	11.61	468961	14.91
1284322 268887,12	1055079	7.70	896984	11.61	462268	14.91
1284323 268887,12	1062232	7.70	908064	11.61	464073	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 3 Jan 2023
Instrument ID : VMS3 Time Analyzed : 2:23 pm
GC Column : DB-624 UI ID : VMS3(mm) Heated Purge (Y:N) : N

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1316944	7.70	1016902	11.62	517486	14.91
UPPER LIMIT	2633888	8.20	2033804	12.12	1034972	15.41
LOWER LIMIT	658472	7.20	508451	11.12	258743	14.41
File ID Sample						
1284324 268887,12	1068778	7.70	928744	11.61	476729	14.91
CCB-MB2 268886,MB	1073173	7.70	930461	11.61	471552	14.91
CCVF1 268886,CC	1106701	7.70	953400	11.61	497487	14.91
CCV-LCS1 268886,LC	1089138	7.70	918565	11.61	480218	14.91
CCV-LCS2 268886,LC	1098127	7.70	962231	11.61	497708	14.91
MB1 268886,MB	1054700	7.70	891070	11.61	441710	14.91
VF2-LCD1 268886,CC	1119862	7.70	986180	11.61	515380	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283669.D Vial: 6
Acq On : 1 Feb 2023 11:16 Operator: DGS-RLD
Sample : 268886,1283669, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:36:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1043320	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	875643	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	444160	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	279877	20.919	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105	%		
45) SURR12DCAd4	7.26	102	73755	19.491	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 97	%		
61) SURRd8Tolule	9.70	98	1077519	20.740	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.24	95	415799	19.814	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.07	43	4556	Below Cal #		42
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	9785	0.4283	ug/L	93
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283669.D Vial: 6
Acq On : 1 Feb 2023 11:16 Operator: DGS-RLD
Sample : 268886,1283669, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:36:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283669.D Vial: 6
Acq On : 1 Feb 2023 11:16 Operator: DGS-RLD
Sample : 268886,1283669, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:36:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

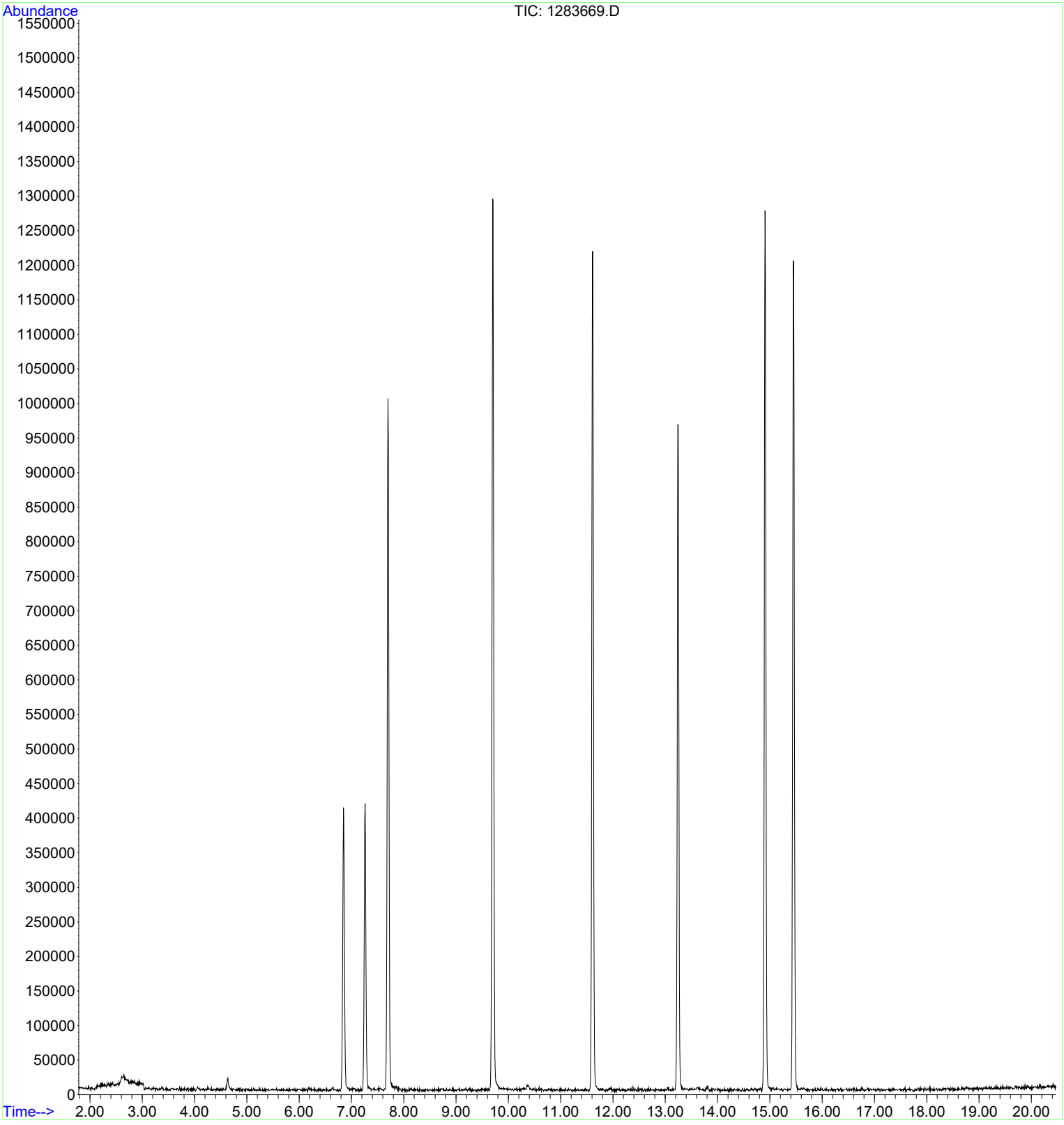
(#) = qualifier out of range (m) = manual integration

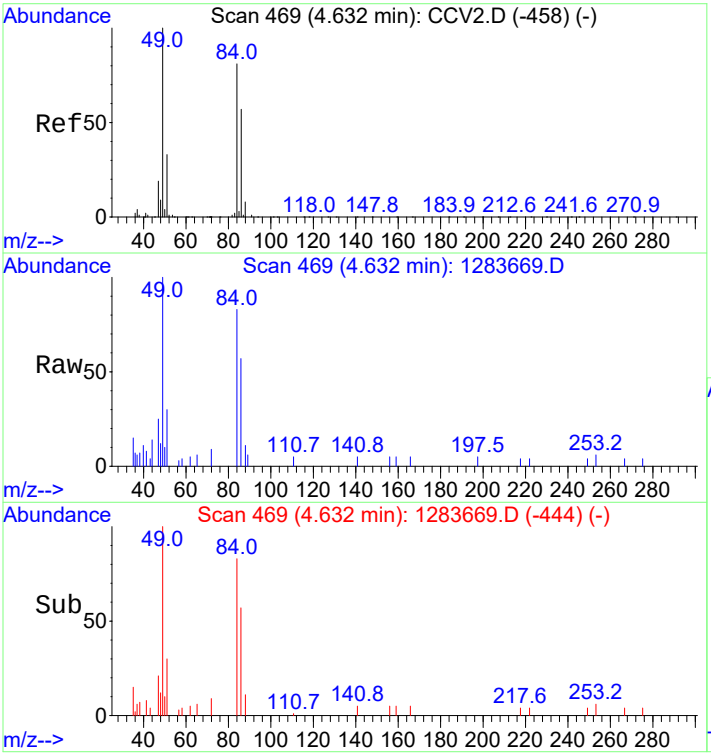
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283669.D Vial: 6
Acq On : 1 Feb 2023 11:16 Operator: DGS-RLD
Sample : 268886,1283669, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:36:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

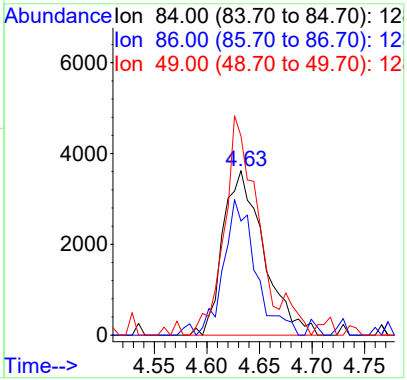




#20
Methylchlorid
Concen: 0.43 ug/L
RT: 4.63 min Scan# 469
Delta R.T. 0.00 min
Lab File: 1283669.D
Acq: 1 Feb 2023 11:16

Tgt Ion: 84 Resp: 9785

Ion	Ratio	Lower	Upper
84	100		
86	64.3	44.4	84.4
49	113.0	105.7	145.7



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284314.D Vial: 7
Acq On : 1 Feb 2023 11:44 Operator: DGS-RLD
Sample : 268887,1284314, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:05:11 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1050518	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	899042	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	450285	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	284716	21.135	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 106	%		
45) SURR12DCAd4	7.25	102	77058	20.224	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1089690	20.831	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.24	95	424119	19.935	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	4734	Below	Cal #	42
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.25	76	2932	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	8717	N.D.		
21) tbutylalcohol	4.85	59	11838	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.20	59	2899	N.D.		
31) 22dichloropr	6.20	77	4595	1.0345	ug/L #	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284314.D Vial: 7
Acq On : 1 Feb 2023 11:44 Operator: DGS-RLD
Sample : 268887,1284314, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:05:11 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1284314.D Vial: 7
Acq On : 1 Feb 2023 11:44 Operator: DGS-RLD
Sample : 268887,1284314, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:05:11 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

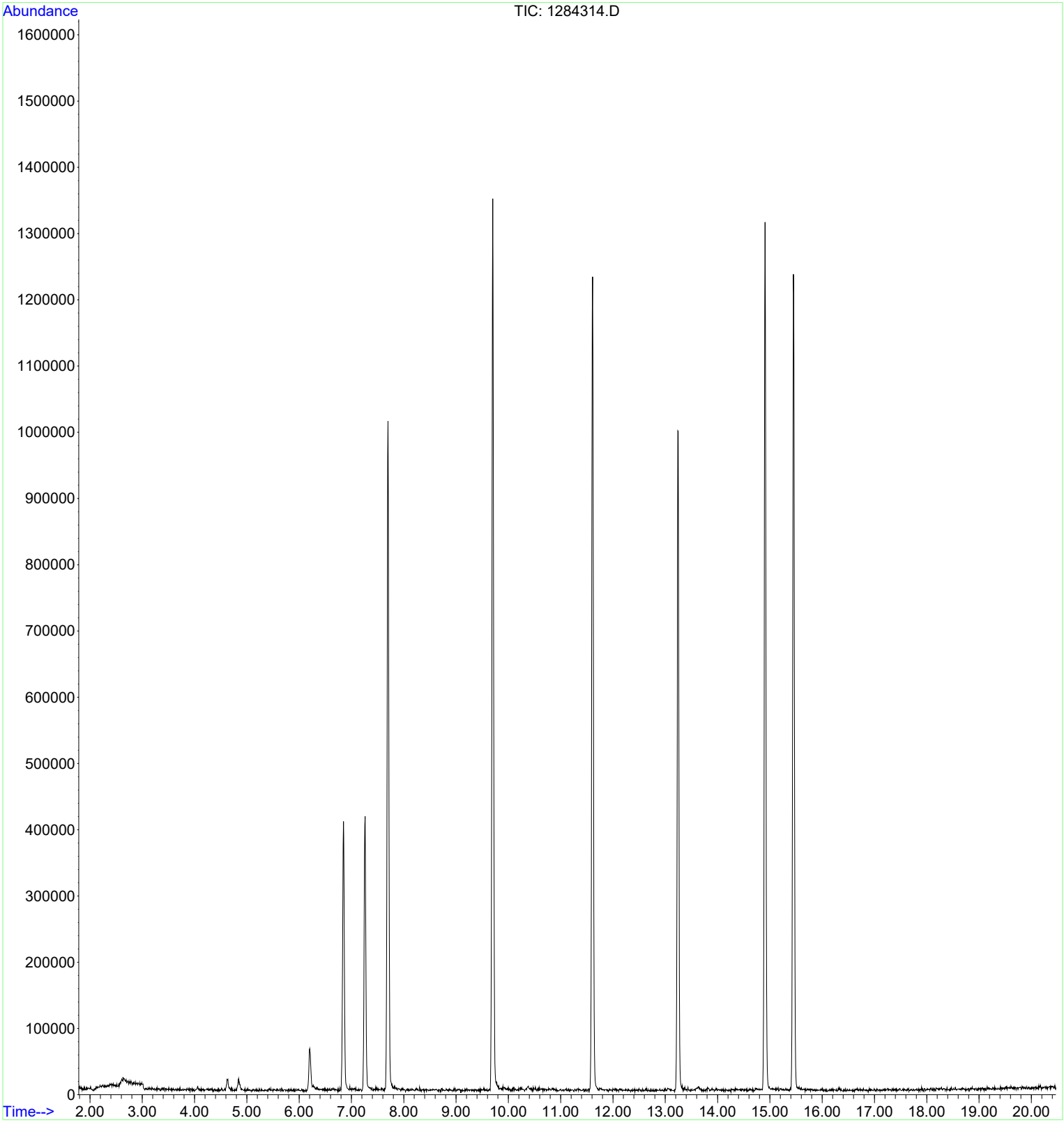
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284314.D Vial: 7
Acq On : 1 Feb 2023 11:44 Operator: DGS-RLD
Sample : 268887,1284314, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:05:11 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670.D Vial: 8
Acq On : 1 Feb 2023 12:14 Operator: DGS-RLD
Sample : 268886,1283670, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:35:32 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1065386	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	895255	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	458204	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	284827	20.848	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104	%		
45) SURR12DCAd4	7.25	102	79749	20.638	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.70	98	1096215	20.663	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	421992	19.493	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670.D Vial: 8
Acq On : 1 Feb 2023 12:14 Operator: DGS-RLD
Sample : 268886,1283670, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:35:32 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1283670.D Vial: 8
Acq On : 1 Feb 2023 12:14 Operator: DGS-RLD
Sample : 268886,1283670, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:35:32 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

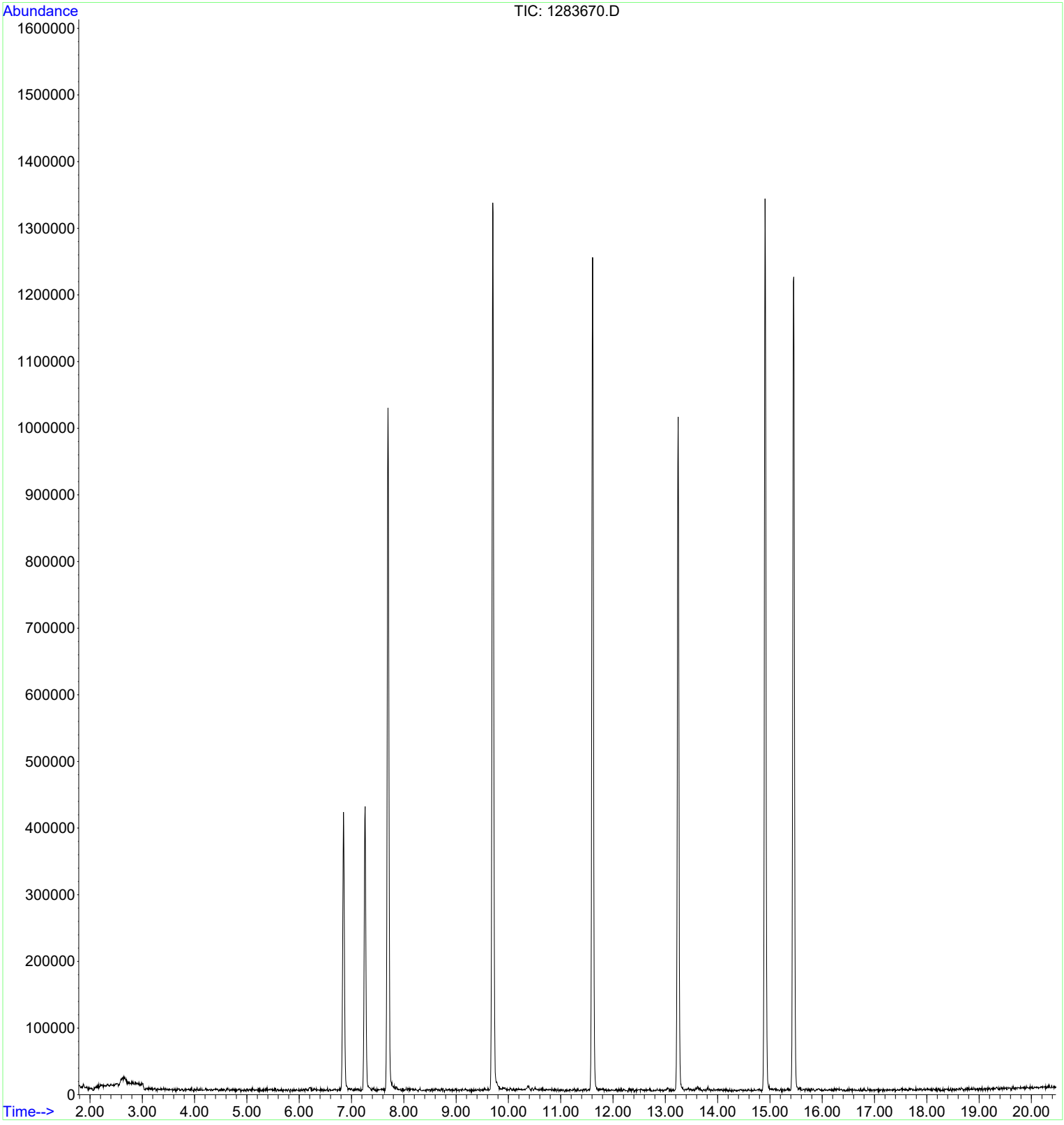
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670.D Vial: 8
Acq On : 1 Feb 2023 12:14 Operator: DGS-RLD
Sample : 268886,1283670, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 12:35:32 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283671.D Vial: 9
Acq On : 1 Feb 2023 12:44 Operator: DGS-RLD
Sample : 268886,1283671, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:05:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1035835	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	888736	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	453957	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	280504	21.118	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 106	%		
45) SURR12DCAd4	7.26	102	78476	20.888	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104	%		
61) SURRd8Tolule	9.70	98	1079324	20.925	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.24	95	416518	19.420	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283671.D Vial: 9
Acq On : 1 Feb 2023 12:44 Operator: DGS-RLD
Sample : 268886,1283671, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:05:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	11351	0.9122	ug/L	92
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283671.D Vial: 9
Acq On : 1 Feb 2023 12:44 Operator: DGS-RLD
Sample : 268886,1283671, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:05:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

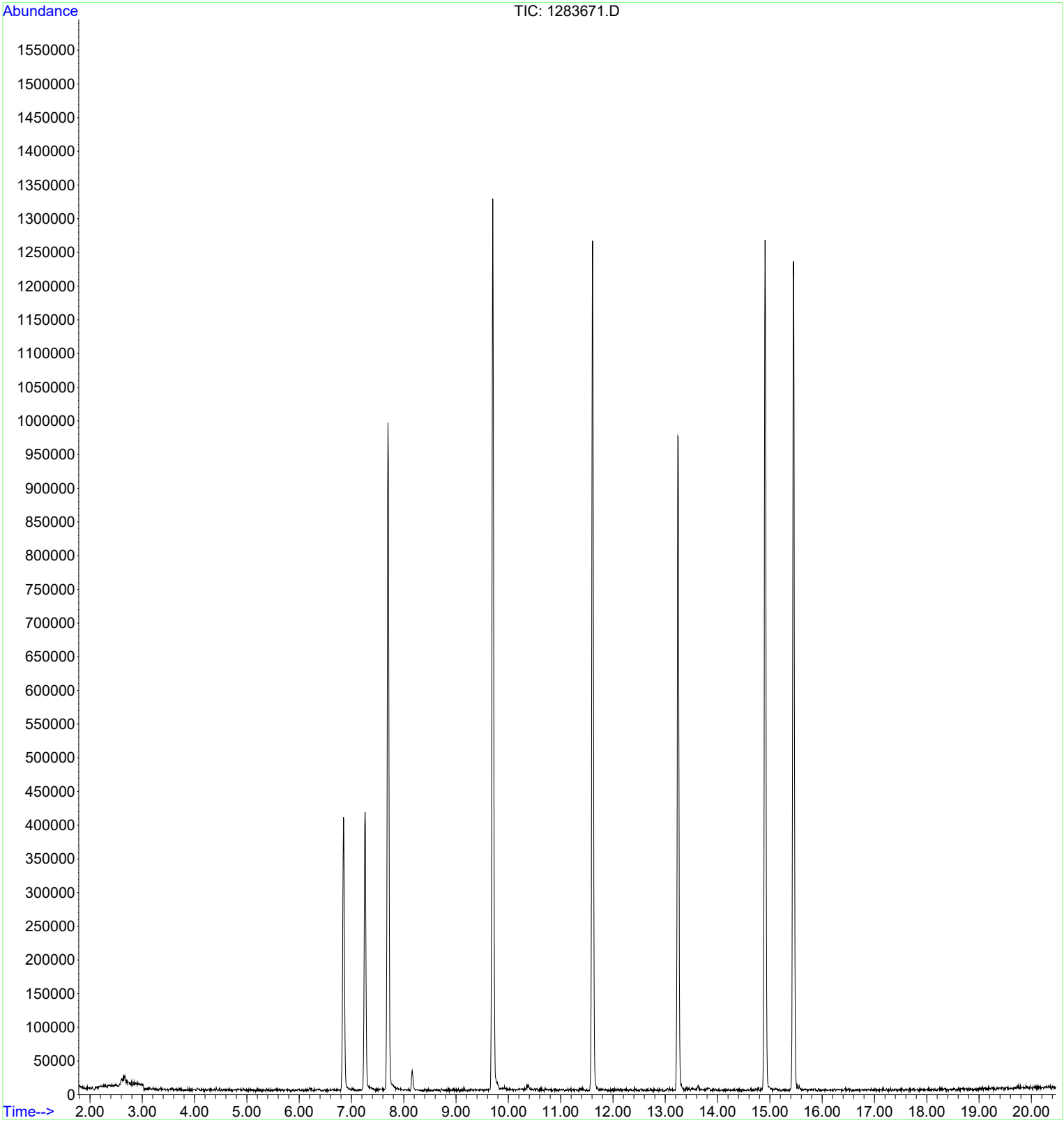
(#) = qualifier out of range (m) = manual integration

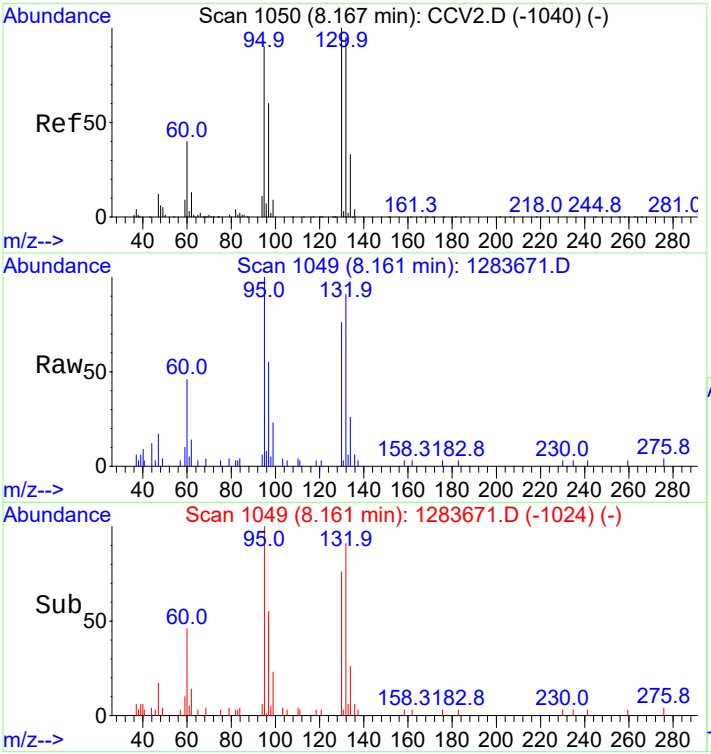
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283671.D Vial: 9
Acq On : 1 Feb 2023 12:44 Operator: DGS-RLD
Sample : 268886,1283671, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:05:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

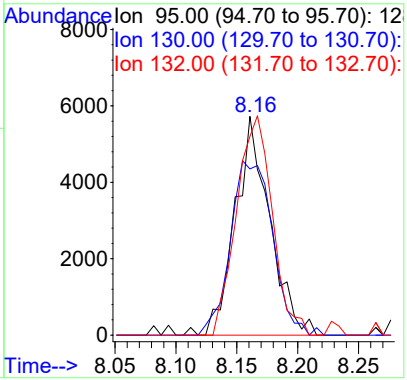




#49
trichloroete
Concen: 0.91 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1283671.D
Acq: 1 Feb 2023 12:44

Tgt Ion: 95 Resp: 11351

Ion	Ratio	Lower	Upper
95	100		
130	96.7	90.0	130.0
132	103.6	87.2	127.2



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283672.D Vial: 10
Acq On : 1 Feb 2023 13:14 Operator: DGS-RLD
Sample : 268886,1283672, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:34:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1039742	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	885413	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	452768	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	277448	20.809	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104	%		
45) SURR12DCAd4	7.25	102	76050	20.166	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1073382	20.732	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.25	95	413814	19.344	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.27	101	4556	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283672.D Vial: 10
Acq On : 1 Feb 2023 13:14 Operator: DGS-RLD
Sample : 268886,1283672, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:34:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	11286	0.5667 ug/L	96
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.11	119	64486	5.4450 ug/L	90
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.17	95	11019	0.8822 ug/L	95
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283672.D Vial: 10
Acq On : 1 Feb 2023 13:14 Operator: DGS-RLD
Sample : 268886,1283672, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:34:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

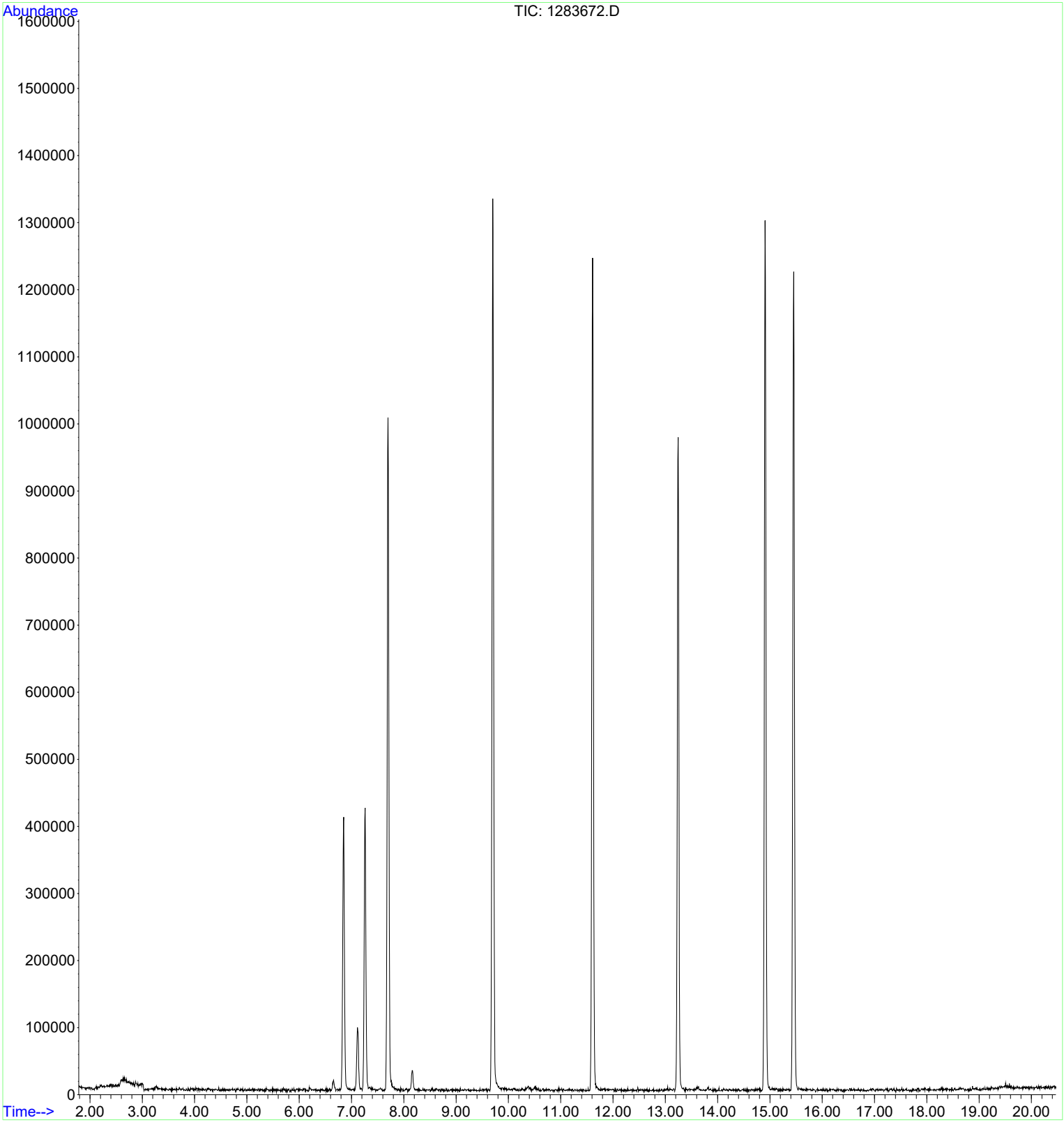
(#) = qualifier out of range (m) = manual integration

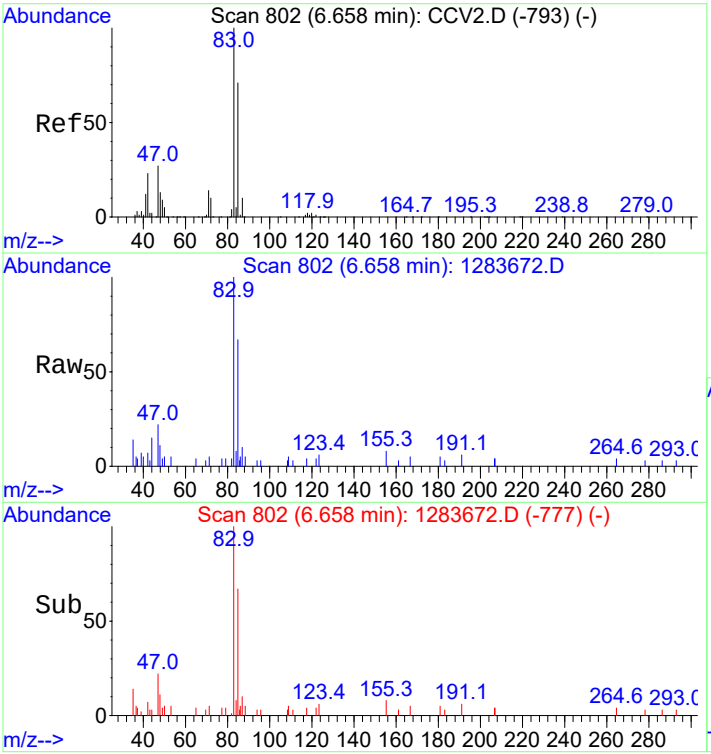
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283672.D Vial: 10
Acq On : 1 Feb 2023 13:14 Operator: DGS-RLD
Sample : 268886,1283672, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 13:34:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

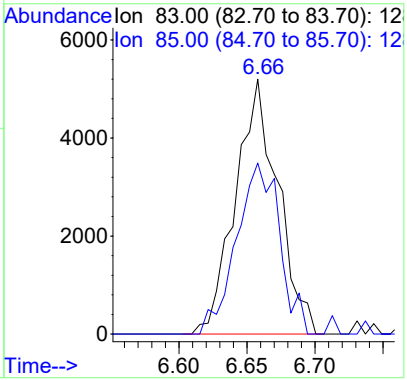


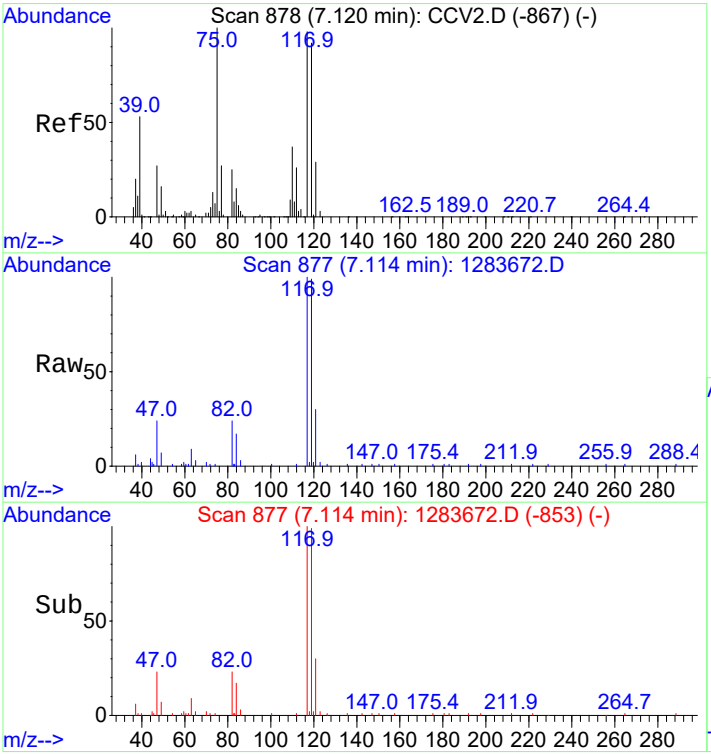


#39
Chloroform
Concen: 0.57 ug/L
RT: 6.66 min Scan# 802
Delta R.T. -0.00 min
Lab File: 1283672.D
Acq: 1 Feb 2023 13:14

Tgt Ion: 83 Resp: 11286

Ion	Ratio	Lower	Upper
83	100		
85	68.1	45.2	85.2

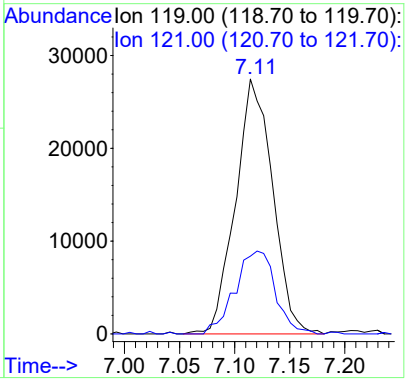


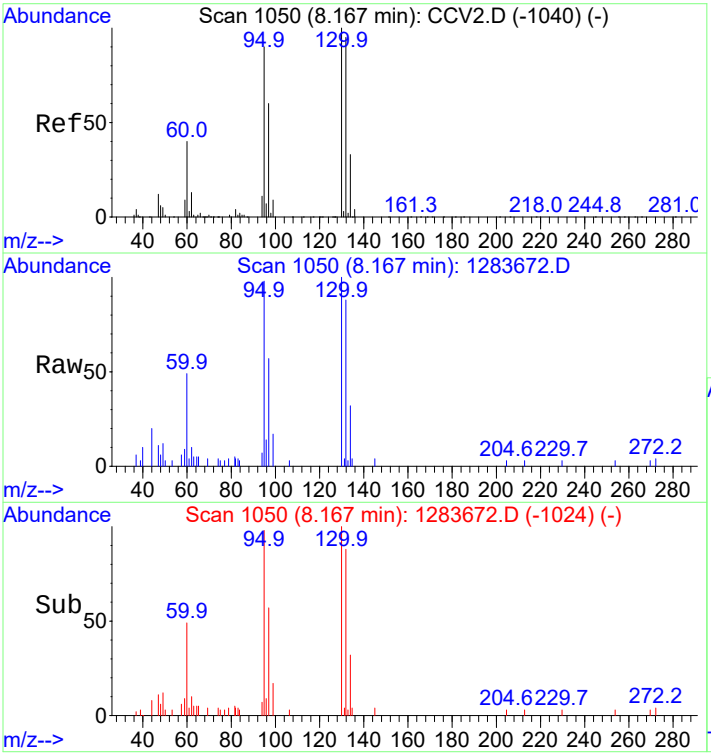


#43
Carbtetraclo
Concen: 5.44 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1283672.D
Acq: 1 Feb 2023 13:14

Tgt Ion:119 Resp: 64486

Ion	Ratio	Lower	Upper
119	100		
121	35.3	9.8	49.8

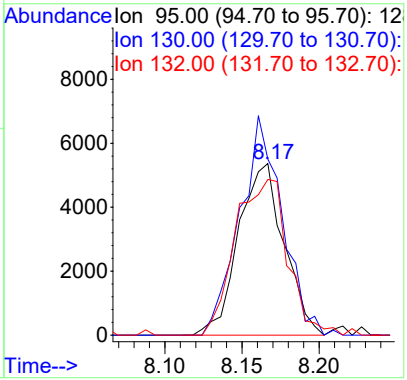




#49
trichloroete
Concen: 0.88 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1283672.D
Acq: 1 Feb 2023 13:14

Tgt Ion: 95 Resp: 11019

Ion	Ratio	Lower	Upper
95	100		
130	119.1	90.0	130.0
132	105.1	87.2	127.2



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283673.D Vial: 11
Acq On : 1 Feb 2023 13:44 Operator: DGS-RLD
Sample : 268886,1283673, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:05:10 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1053854	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	895398	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	455037	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	283736	20.996	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105 %			
45) SURR12DCAd4	7.26	102	75855	19.845	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.71	98	1089572	20.763	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104 %			
83) SURR4BrFBenz	13.25	95	420525	19.560	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %			

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) Dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	0.00	101	0	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	0.00	43	0	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	0.00	76	0	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) tbutylalcohol	0.00	59	0	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	0.00	42	0	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283673.D Vial: 11
Acq On : 1 Feb 2023 13:44 Operator: DGS-RLD
Sample : 268886,1283673, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:05:10 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.		
40) 111trichlota	0.00	97	0	N.D.		
42) Cyclohexane	0.00	56	0	N.D.		
43) Carbtetraclo	7.12	119	8057	1.3610	ug/L	91
44) 11dicloprope	0.00	110	0	N.D.		
46) Benzene	0.00	78	0	N.D.		
47) 12dichlorota	0.00	62	0	N.D.		
48) TAME	0.00	73	0	N.D.		
49) trichloroete	0.00	95	0	N.D.		
50) methylcyclohexane	0.00	83	0	N.D.		
51) 12dicloropra	0.00	63	0	N.D.		
52) 23Dicl1propene	0.00	75	0	N.D.		
53) Dibromometha	0.00	93	0	N.D.		
54) methylmethacrylate	0.00	69	0	N.D.		
55) 14dioxane	0.00	88	0	N.D.		
56) Bromodiclrma	0.00	83	0	N.D.		
57) 2Nitropropane	0.00	43	0	N.D.		
58) 2CLEVE	0.00	63	0	N.D.		
59) c13dicloproe	0.00	75	0	N.D.		
60) 4Meth2Pentan	0.00	43	0	N.D.		
62) Toluene	9.80	92	2590	N.D.		
63) t13Dicloprop	0.00	75	0	N.D.		
64) ethylmethacrylate	0.00	69	0	N.D.		
65) 112Triclotha	0.00	83	0	N.D.		
66) Tetrachlorte	0.00	166	0	N.D.		
67) 13Diclorpropa	0.00	76	0	N.D.		
69) 2Hexanone	0.00	43	0	N.D.		
70) Clorodibrmta	0.00	129	0	N.D.		
71) 12Dibrometha	0.00	107	0	N.D.		
72) Chlorobenzen	0.00	112	0	N.D.		
73) 1Clhexane	0.00	91	0	N.D.		
74) 1112Tetclota	0.00	131	0	N.D.		
75) Ethylbenzene	0.00	91	0	N.D.		
76) m p-Xylene	0.00	106	0	N.D.		
77) o-Xylene	0.00	106	0	N.D.		
78) Styrene	0.00	104	0	N.D.		
79) Bromoform	0.00	173	0	N.D.		
80) Isopropylben	0.00	105	0	N.D.		
81) cyclohexanone	0.00	55	0	N.D.		
84) Bromobenzene	0.00	156	0	N.D.		
85) 1122Tetrclta	0.00	83	0	N.D.		
86) 123Triclproa	0.00	75	0	N.D.		
87) 14dichloro2butene	0.00	53	0	N.D.		
88) n-Propylbenz	0.00	91	0	N.D.		
89) 2chlorotolue	0.00	91	0	N.D.		
90) 4chlorotolue	0.00	91	0	N.D.		
91) 135Trimebenz	0.00	105	0	N.D.		
92) tbutylbenzen	0.00	119	0	N.D.		
93) 124Trimetben	0.00	105	0	N.D.		
94) sbutylbenzen	0.00	105	0	N.D.		
95) 13Diclorbenz	0.00	146	0	N.D.		
96) pIsopropylto	0.00	119	0	N.D.		
97) 14dichlorobe	0.00	146	0	N.D.		
98) 12dichlorobe	0.00	146	0	N.D.		
99) nButylbenzen	0.00	91	0	N.D.		
100) 12dibromo3cl	0.00	157	0	N.D.		
101) 135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283673.D Vial: 11
Acq On : 1 Feb 2023 13:44 Operator: DGS-RLD
Sample : 268886,1283673, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:05:10 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

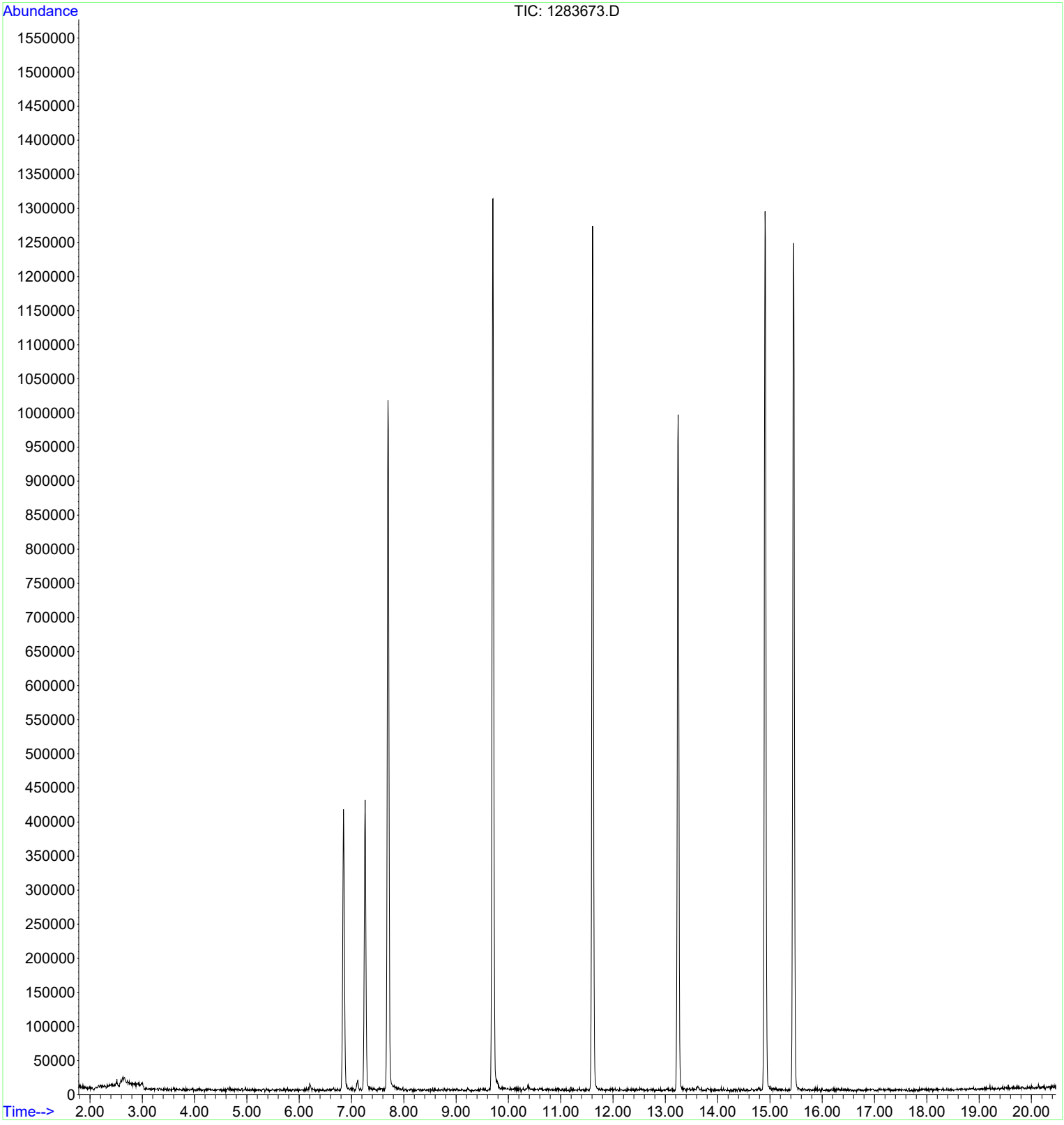
(#) = qualifier out of range (m) = manual integration

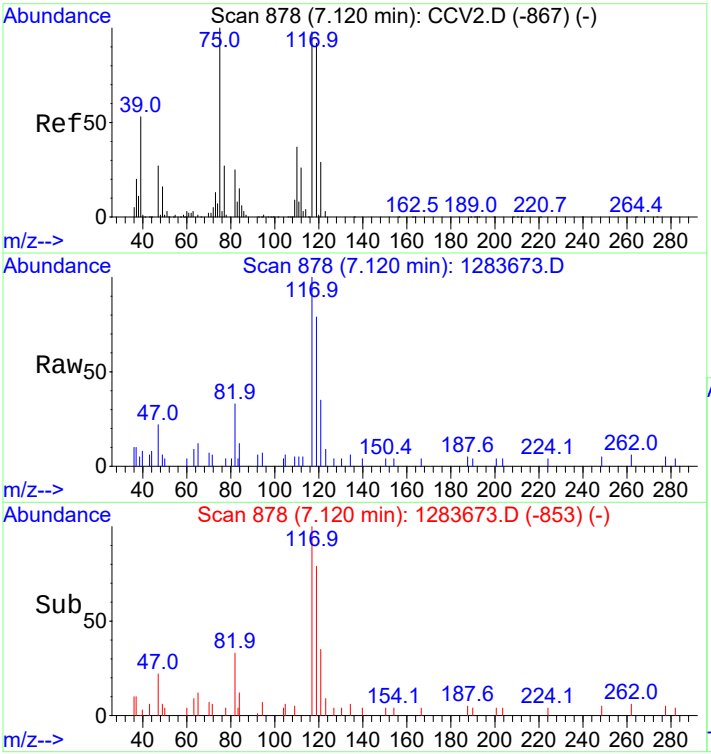
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283673.D Vial: 11
Acq On : 1 Feb 2023 13:44 Operator: DGS-RLD
Sample : 268886,1283673, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:05:10 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

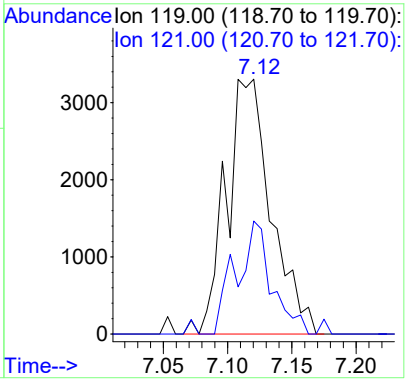




#43
Carbtetraclo
Concen: 1.36 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1283673.D
Acq: 1 Feb 2023 13:44

Tgt Ion:119 Resp: 8057

Ion	Ratio	Lower	Upper
119	100		
121	34.9	9.8	49.8



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283674.D Vial: 12
Acq On : 1 Feb 2023 14:12 Operator: DGS-RLD
Sample : 268886,1283674, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:33:30 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1036263	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	896297	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	453974	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	281592	21.191 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 106 %			
45) SURR12DCAd4	7.25	102	78855	20.980 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %			
61) SURRd8Tolule	9.70	98	1085718	21.040 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 105 %			
83) SURR4BrFBenz	13.24	95	413376	19.273 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 96 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283674.D Vial: 12
Acq On : 1 Feb 2023 14:12 Operator: DGS-RLD
Sample : 268886,1283674, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:33:30 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.12	119	8112	1.3748	ug/L	97
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283674.D Vial: 12
Acq On : 1 Feb 2023 14:12 Operator: DGS-RLD
Sample : 268886,1283674, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:33:30 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

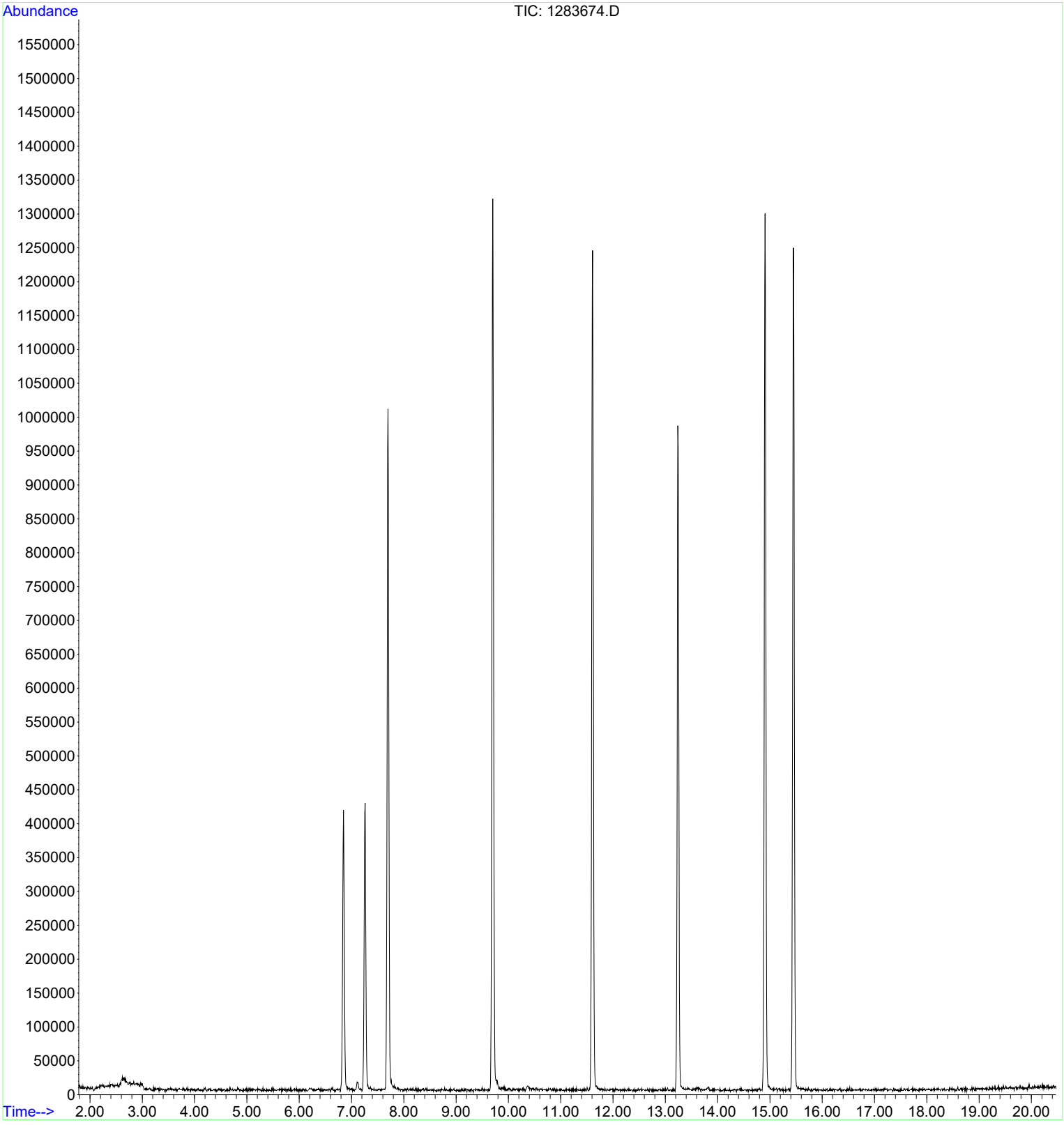
(#) = qualifier out of range (m) = manual integration

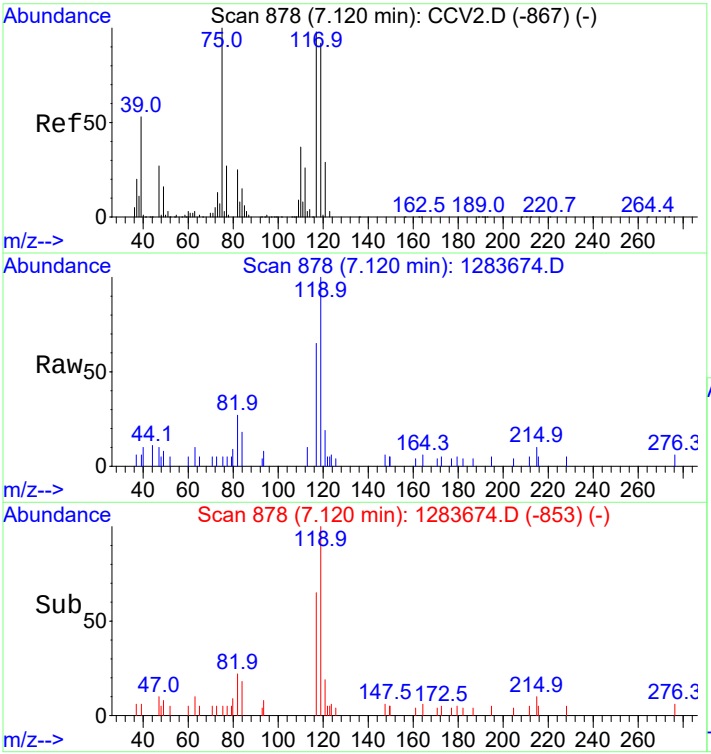
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283674.D Vial: 12
Acq On : 1 Feb 2023 14:12 Operator: DGS-RLD
Sample : 268886,1283674, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 14:33:30 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

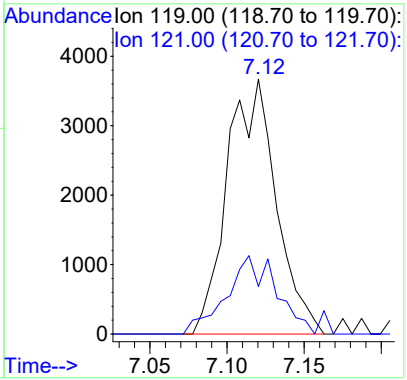




#43
Carbtetraclo
Concen: 1.37 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1283674.D
Acq: 1 Feb 2023 14:12

Tgt Ion:119 Resp: 8112

Ion	Ratio	Lower	Upper
119	100		
121	31.4	9.8	49.8



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283675.D Vial: 13
Acq On : 1 Feb 2023 14:43 Operator: DGS-RLD
Sample : 268886,1283675, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:03:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1053391	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	885629	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	451334	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	283656	20.999 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	78144	20.453 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.70	98	1088749	20.756 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 104 %			
83) SURR4BrFBenz	13.25	95	420106	19.701 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.83	59	2821	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283675.D Vial: 13
Acq On : 1 Feb 2023 14:43 Operator: DGS-RLD
Sample : 268886,1283675, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:03:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283675.D Vial: 13
Acq On : 1 Feb 2023 14:43 Operator: DGS-RLD
Sample : 268886,1283675, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:03:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

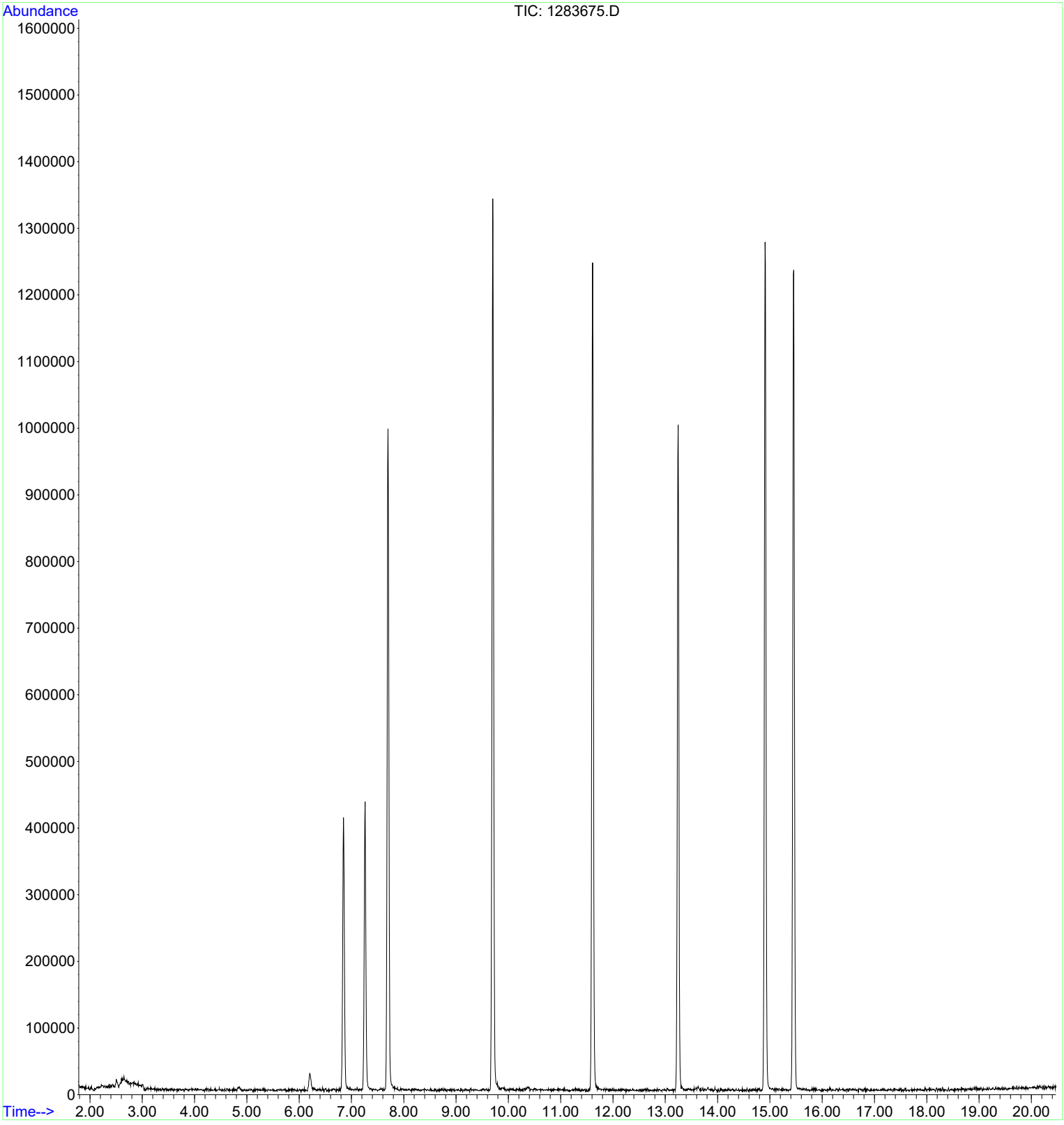
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283675.D Vial: 13
Acq On : 1 Feb 2023 14:43 Operator: DGS-RLD
Sample : 268886,1283675, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:03:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283676.D Vial: 14
Acq On : 1 Feb 2023 15:14 Operator: DGS-RLD
Sample : 268886,1283676, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:34:42 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1040053	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	883199	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	446174	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	281155	21.081	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105	%		
45) SURR12DCAd4	7.26	102	76855	20.374	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%		
61) SURRd8Tolule	9.71	98	1081889	20.890	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.24	95	419215	19.886	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283676.D Vial: 14
Acq On : 1 Feb 2023 15:14 Operator: DGS-RLD
Sample : 268886,1283676, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:34:42 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283676.D Vial: 14
Acq On : 1 Feb 2023 15:14 Operator: DGS-RLD
Sample : 268886,1283676, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:34:42 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

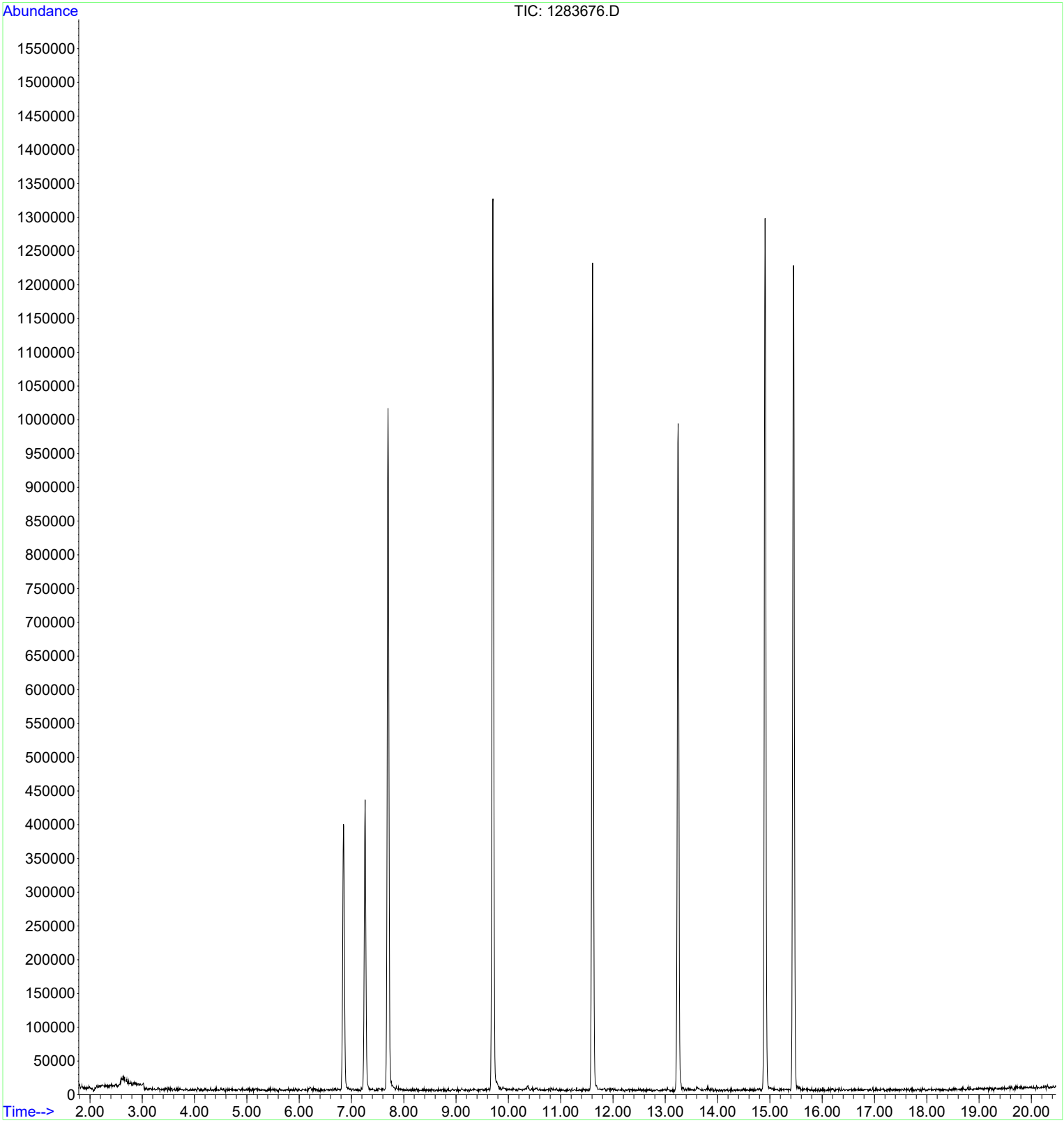
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283676.D Vial: 14
Acq On : 1 Feb 2023 15:14 Operator: DGS-RLD
Sample : 268886,1283676, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 15:34:42 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284315.D Vial: 15
Acq On : 1 Feb 2023 15:42 Operator: DGS-RLD
Sample : 268887,1284315, Inst : VMS3
Misc : pH 7,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:03:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1120326	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	966054	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	495677	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	298504	20.778 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104 %		
45) SURR12DCAd4	7.26	102	84850	20.882 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104 %		
61) SURRd8Tolule	9.70	98	1173664	21.038 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105 %		
83) SURR4BrFBenz	13.24	95	455570	19.453 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	5405	Below Cal # 42	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284315.D Vial: 15
Acq On : 1 Feb 2023 15:42 Operator: DGS-RLD
Sample : 268887,1284315, Inst : VMS3
Misc : pH 7,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:03:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1284315.D Vial: 15
Acq On : 1 Feb 2023 15:42 Operator: DGS-RLD
Sample : 268887,1284315, Inst : VMS3
Misc : pH 7,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:03:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

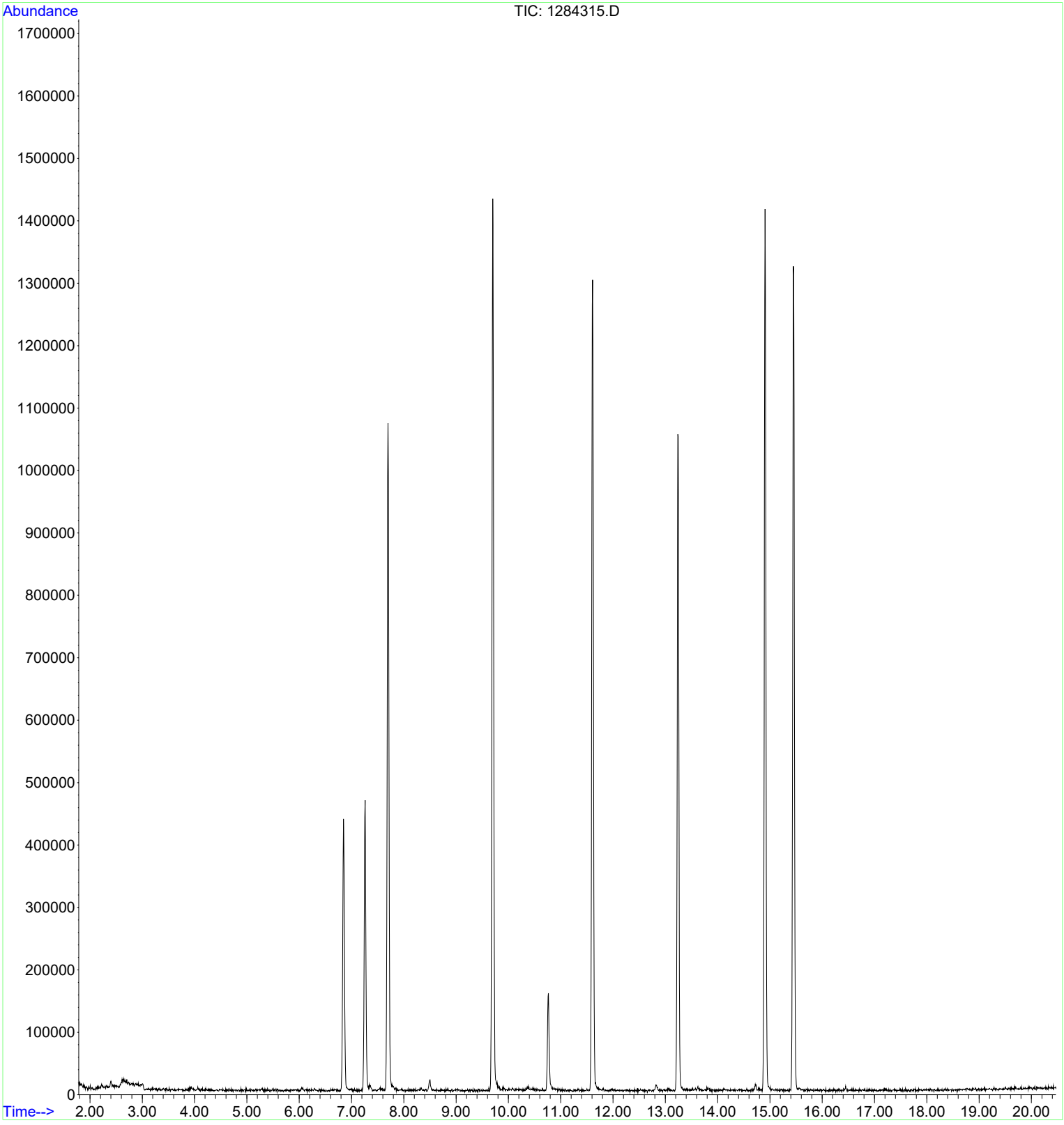
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284315.D Vial: 15
Acq On : 1 Feb 2023 15:42 Operator: DGS-RLD
Sample : 268887,1284315, Inst : VMS3
Misc : pH 7,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:03:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316.D Vial: 16
Acq On : 1 Feb 2023 16:13 Operator: DGS-RLD
Sample : 268887,1284316, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:33:35 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1065337	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	902046	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	462290	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	279229	20.439	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	76199	19.721	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1099939	20.734	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.25	95	424202	19.422	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	0.00	43	0	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	5.53	63	33348	1.6358	ug/L	99
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	6.26	96	47707	3.5777	ug/L	90
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316.D Vial: 16
Acq On : 1 Feb 2023 16:13 Operator: DGS-RLD
Sample : 268887,1284316, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:33:35 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.15	95	22604	1.7663 ug/L	96
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	10.51	166	4081	0.2853 ug/L #	68
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316.D Vial: 16
Acq On : 1 Feb 2023 16:13 Operator: DGS-RLD
Sample : 268887,1284316, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:33:35 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

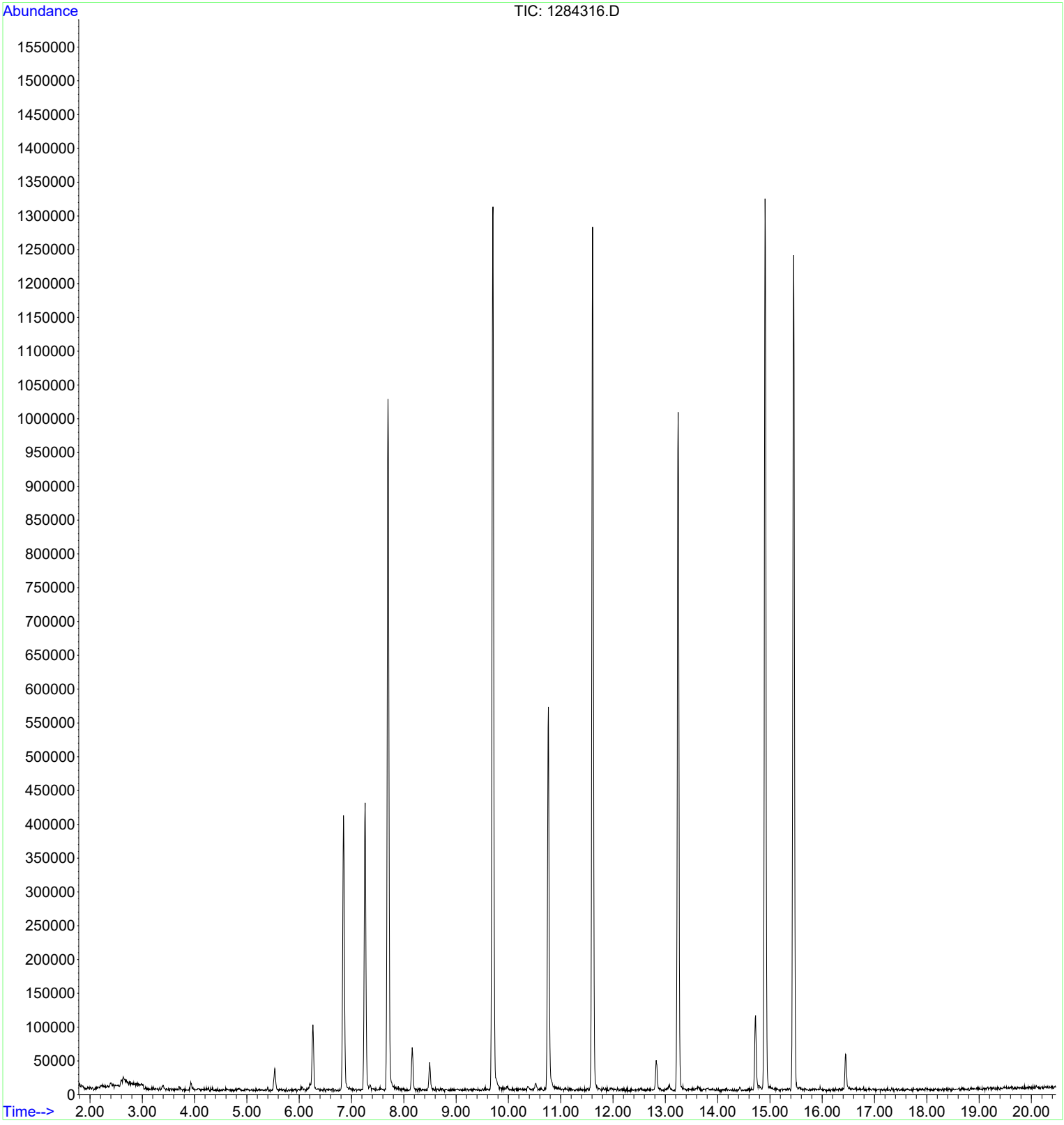
(#) = qualifier out of range (m) = manual integration

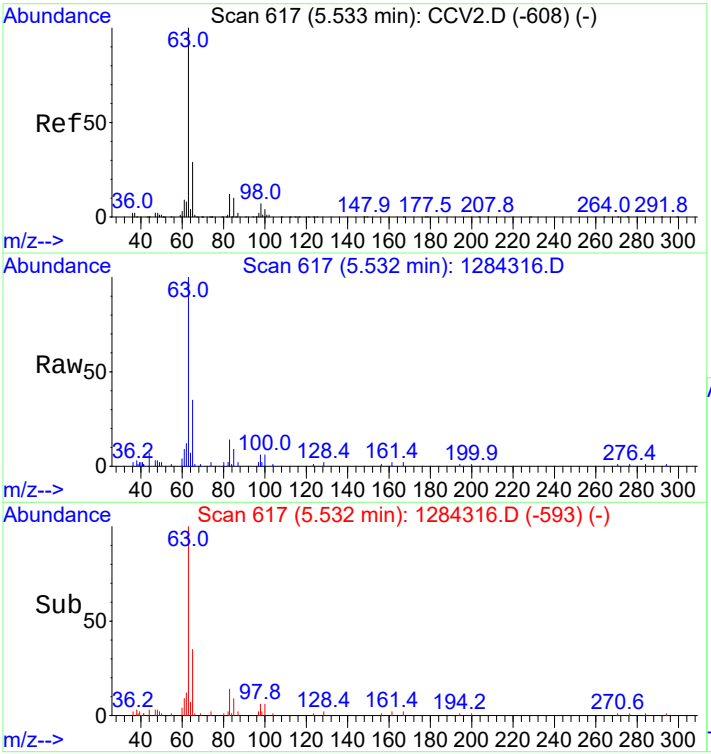
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316.D Vial: 16
Acq On : 1 Feb 2023 16:13 Operator: DGS-RLD
Sample : 268887,1284316, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 16:33:35 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

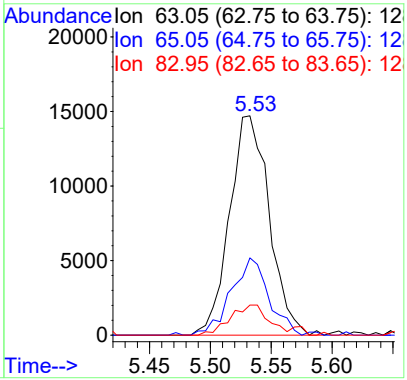


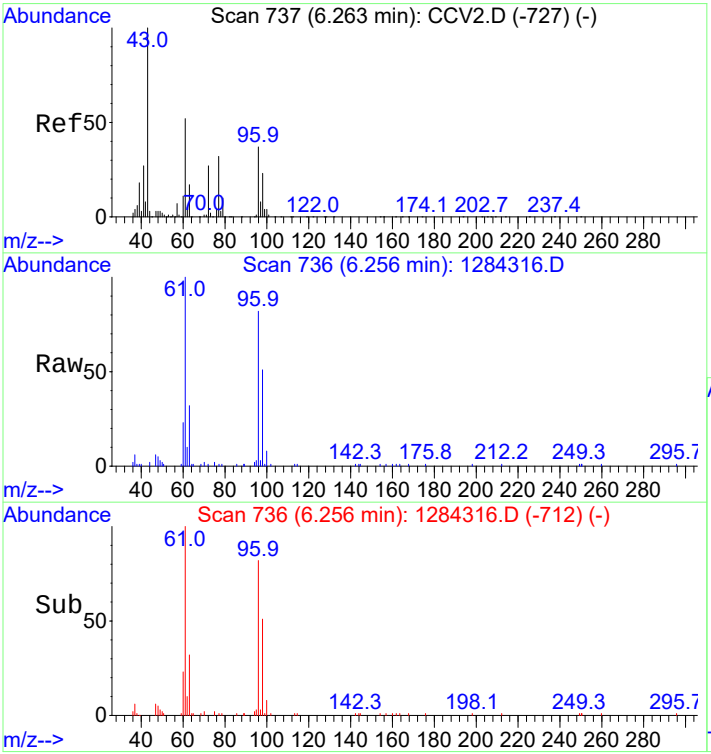


#26
11dichlorota
Concen: 1.64 ug/L
RT: 5.53 min Scan# 617
Delta R.T. -0.01 min
Lab File: 1284316.D
Acq: 1 Feb 2023 16:13

Tgt Ion: 63 Resp: 33348

Ion	Ratio	Lower	Upper
63	100		
65	33.3	13.1	53.1
83	14.4	0.0	32.9

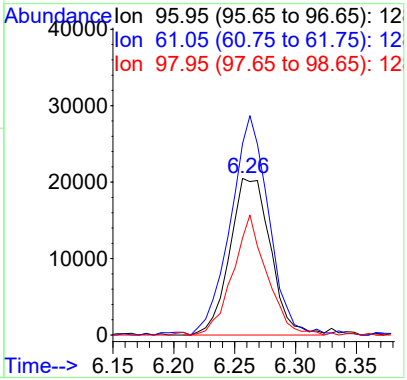


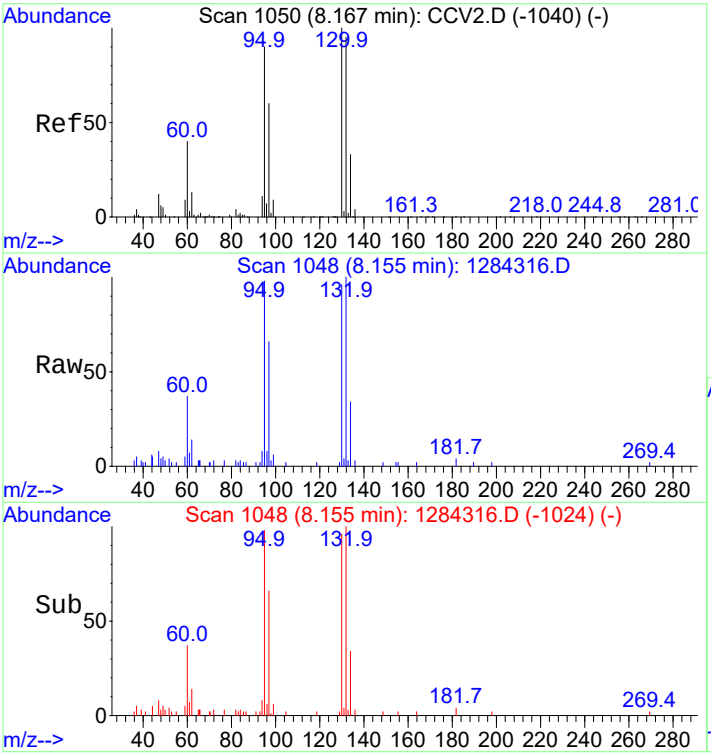


#32
c12dichlorte
Concen: 3.58 ug/L
RT: 6.26 min Scan# 736
Delta R.T. -0.01 min
Lab File: 1284316.D
Acq: 1 Feb 2023 16:13

Tgt Ion: 96 Resp: 47707

Ion	Ratio	Lower	Upper
96	100		
61	132.0	128.9	168.9
98	64.0	46.9	86.9

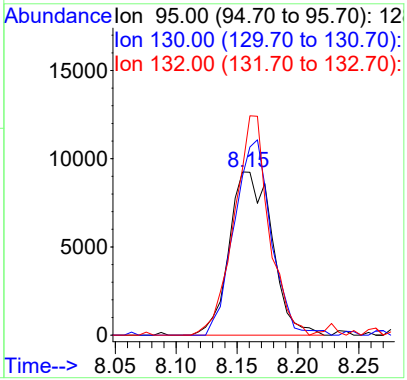


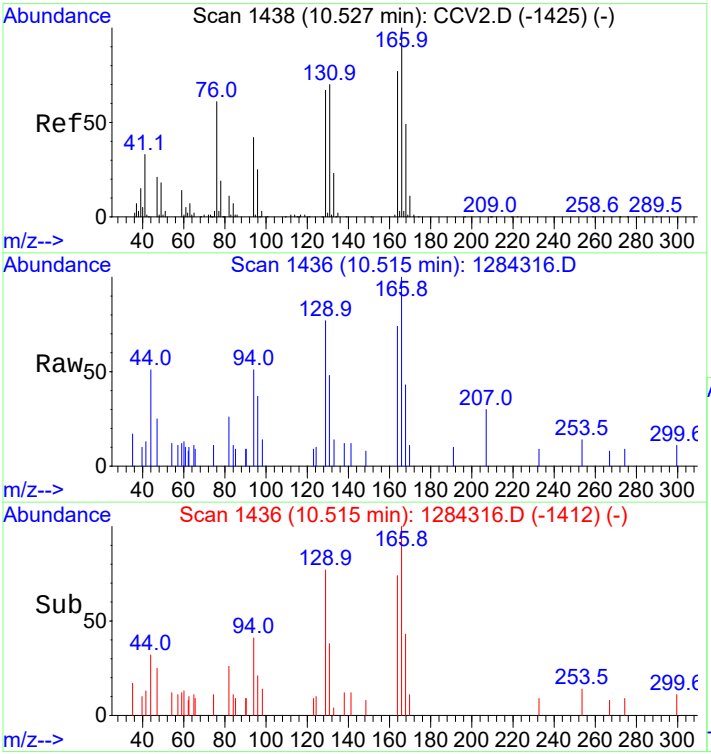


#49
trichloroete
Concen: 1.77 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1284316.D
Acq: 1 Feb 2023 16:13

Tgt Ion: 95 Resp: 22604

Ion	Ratio	Lower	Upper
95	100		
130	103.6	90.0	130.0
132	109.8	87.2	127.2

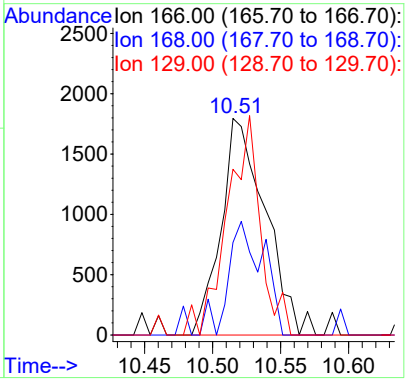




#66
Tetrachlorte
Concen: 0.29 ug/L
RT: 10.51 min Scan# 1436
Delta R.T. -0.01 min
Lab File: 1284316.D
Acq: 1 Feb 2023 16:13

Tgt Ion:166 Resp: 4081

Ion	Ratio	Lower	Upper
166	100		
168	0.0	29.6	69.6#
129	76.0	52.8	92.8



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284317.D Vial: 17
Acq On : 1 Feb 2023 16:42 Operator: DGS-RLD
Sample : 268887,1284317, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:03:15 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1048266	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	903969	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	456696	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	273062	20.313	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	76250	20.055	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1085969	20.804	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.24	95	426777	19.779	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	4737	Below Cal # 42	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	5217	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284317.D Vial: 17
Acq On : 1 Feb 2023 16:42 Operator: DGS-RLD
Sample : 268887,1284317, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:03:15 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	0.00	83	0	N.D.			
40)	111trichlota	0.00	97	0	N.D.			
42)	Cyclohexane	0.00	56	0	N.D.			
43)	Carbtetraclo	0.00	119	0	N.D.			
44)	11dicloprope	0.00	110	0	N.D.			
46)	Benzene	7.35	78	2546	N.D.			
47)	12dichlorota	0.00	62	0	N.D.			
48)	TAME	0.00	73	0	N.D.			
49)	trichloroete	0.00	95	0	N.D.			
50)	methylcyclohexane	0.00	83	0	N.D.			
51)	12dicloropra	0.00	63	0	N.D.			
52)	23Dicl1propene	0.00	75	0	N.D.			
53)	Dibromometha	0.00	93	0	N.D.			
54)	methylmethacrylate	0.00	69	0	N.D.			
55)	14dioxane	0.00	88	0	N.D.			
56)	Bromodiclrma	0.00	83	0	N.D.			
57)	2Nitropropane	0.00	43	0	N.D.			
58)	2CLEVE	0.00	63	0	N.D.			
59)	c13dicloproe	0.00	75	0	N.D.			
60)	4Meth2Pentan	0.00	43	0	N.D.			
62)	Toluene	9.79	92	14617	0.4706	ug/L		95
63)	t13Dicloprop	0.00	75	0	N.D.			
64)	ethylmethacrylate	0.00	69	0	N.D.			
65)	112Triclotha	0.00	83	0	N.D.			
66)	Tetrachlorte	0.00	166	0	N.D.			
67)	13Diclorpropa	0.00	76	0	N.D.			
69)	2Hexanone	0.00	43	0	N.D.			
70)	Clorodibrmta	0.00	129	0	N.D.			
71)	12Dibrometha	0.00	107	0	N.D.			
72)	Chlorobenzen	0.00	112	0	N.D.			
73)	1Clhexane	0.00	91	0	N.D.			
74)	1112Tetclota	0.00	131	0	N.D.			
75)	Ethylbenzene	11.81	91	3253	N.D.			
76)	m p-Xylene	11.98	106	4274	N.D.			
77)	o-Xylene	0.00	106	0	N.D.			
78)	Styrene	12.53	104	8716	N.D.			
79)	Bromoform	0.00	173	0	N.D.			
80)	Isopropylben	0.00	105	0	N.D.			
81)	cyclohexanone	13.13	55	18752	16.4975	ug/L	#	93
84)	Bromobenzene	0.00	156	0	N.D.			
85)	1122Tetrclta	0.00	83	0	N.D.			
86)	123Triclproa	0.00	75	0	N.D.			
87)	14dichloro2butene	0.00	53	0	N.D.			
88)	n-Propylbenz	0.00	91	0	N.D.			
89)	2chlorotolue	0.00	91	0	N.D.			
90)	4chlorotolue	0.00	91	0	N.D.			
91)	135Trimebenz	0.00	105	0	N.D.			
92)	tbutylbenzen	0.00	119	0	N.D.			
93)	124Trimetben	0.00	105	0	N.D.			
94)	sbutylbenzen	0.00	105	0	N.D.			
95)	13Diclorbenz	0.00	146	0	N.D.			
96)	pIsopropylto	0.00	119	0	N.D.			
97)	14dichlorobe	0.00	146	0	N.D.			
98)	12dichlorobe	0.00	146	0	N.D.			
99)	nButylbenzen	0.00	91	0	N.D.			
100)	12dibromo3cl	0.00	157	0	N.D.			
101)	135Trichlorobenzene	0.00	180	0	N.D.			

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1284317.D Vial: 17
Acq On : 1 Feb 2023 16:42 Operator: DGS-RLD
Sample : 268887,1284317, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:03:15 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

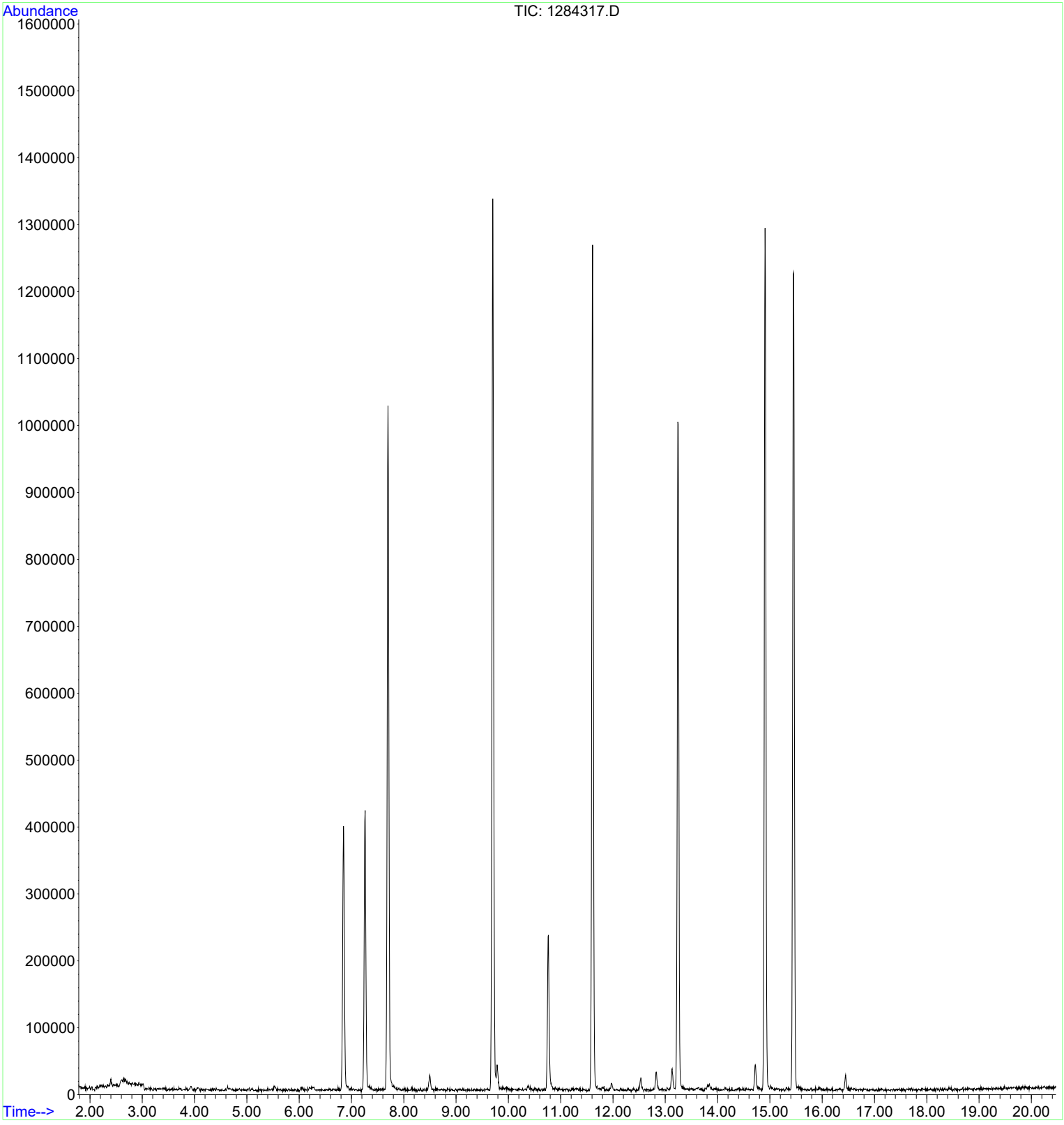
(#) = qualifier out of range (m) = manual integration

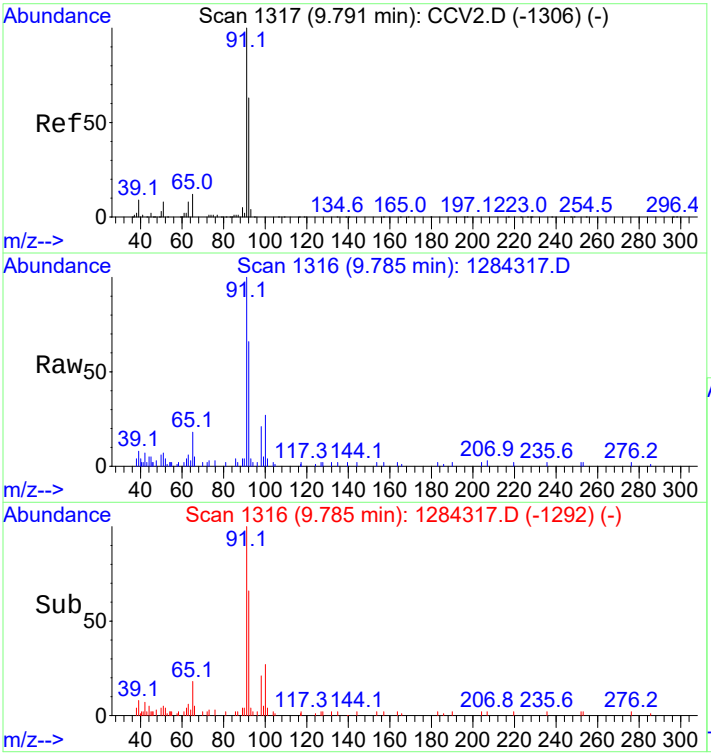
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284317.D Vial: 17
Acq On : 1 Feb 2023 16:42 Operator: DGS-RLD
Sample : 268887,1284317, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:03:15 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

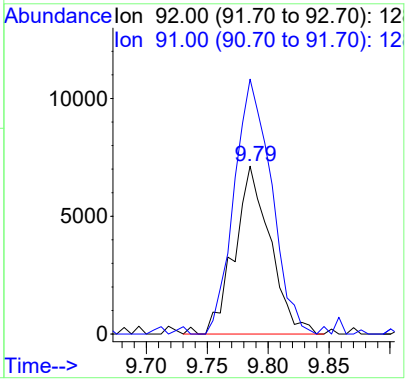




#62
Toluene
Concen: 0.47 ug/L
RT: 9.79 min Scan# 1316
Delta R.T. -0.01 min
Lab File: 1284317.D
Acq: 1 Feb 2023 16:42

Tgt Ion: 92 Resp: 14617

Ion	Ratio	Lower	Upper
92	100		
91	157.7	144.1	184.1



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284318.D Vial: 18
Acq On : 1 Feb 2023 17:12 Operator: DGS-RLD
Sample : 268887,1284318, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:32:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1053628	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	898204	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	458492	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	285492	21.130	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 106	%		
45) SURR12DCAd4	7.26	102	78848	20.633	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.70	98	1097366	20.916	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.25	95	427462	19.733	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	17582	Below	Cal	91
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.85	59	2627	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.28	72	2606	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284318.D Vial: 18
Acq On : 1 Feb 2023 17:12 Operator: DGS-RLD
Sample : 268887,1284318, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:32:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	24264	1.2024 ug/L	94
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	8.76	83	8971	0.6528 ug/L #	80
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.80	92	2838	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	10.81	129	3045	0.8828 ug/L #	77
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284318.D Vial: 18
Acq On : 1 Feb 2023 17:12 Operator: DGS-RLD
Sample : 268887,1284318, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:32:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

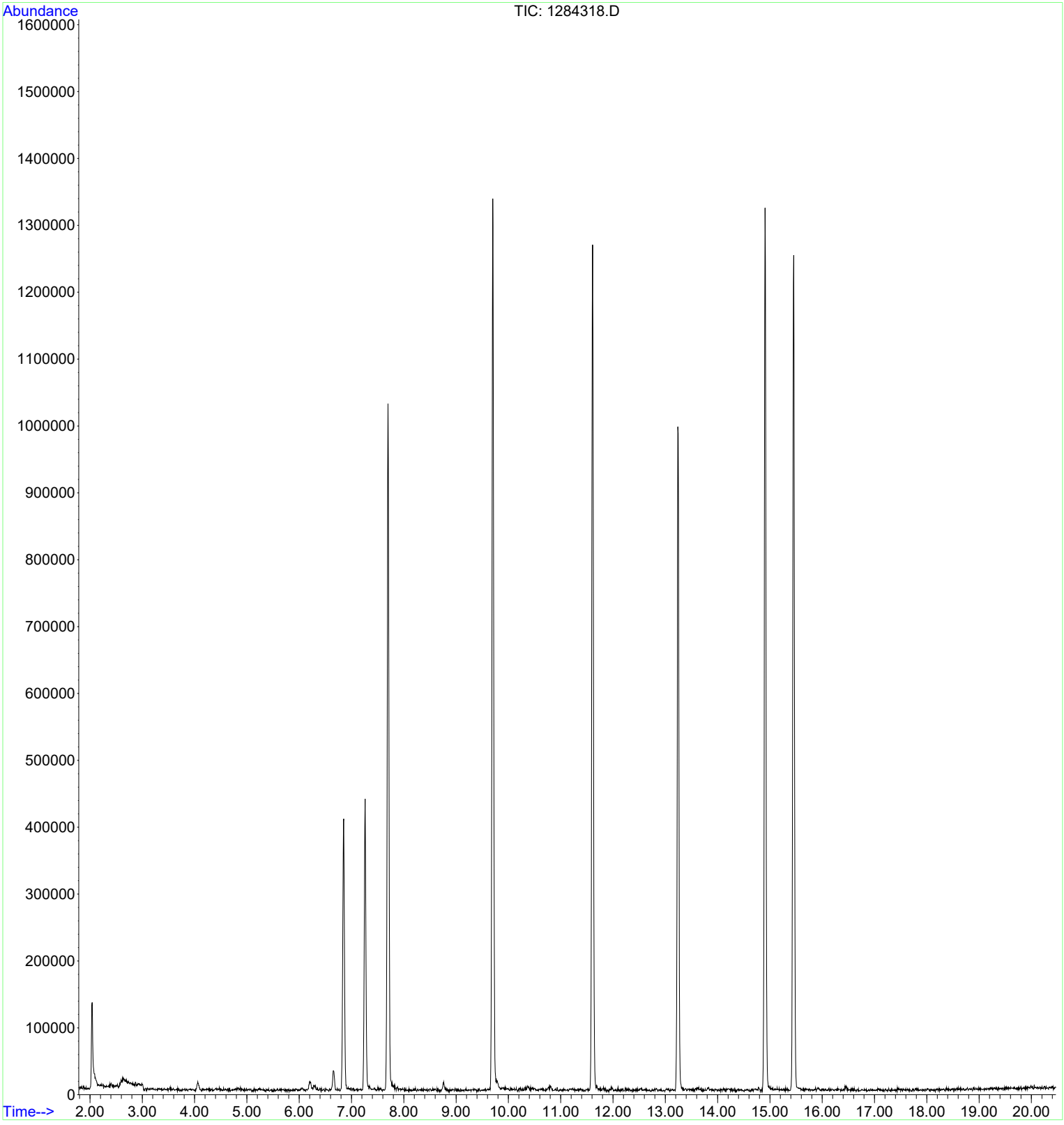
(#) = qualifier out of range (m) = manual integration

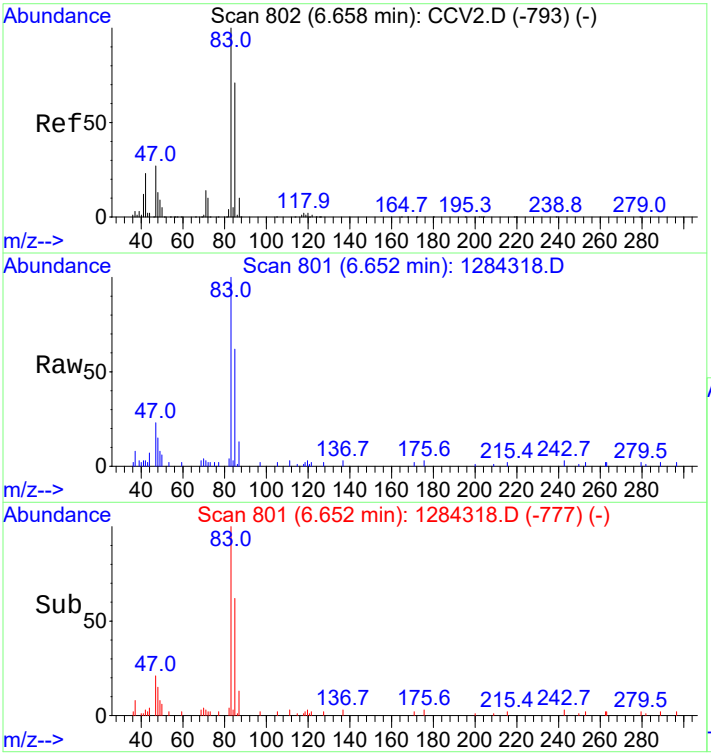
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284318.D Vial: 18
Acq On : 1 Feb 2023 17:12 Operator: DGS-RLD
Sample : 268887,1284318, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 17:32:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

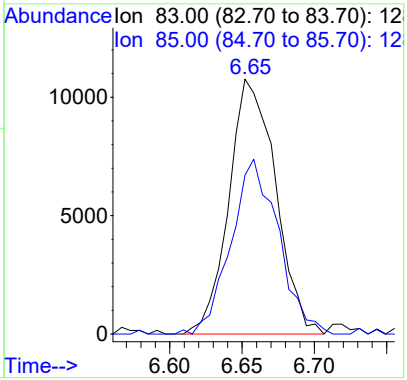


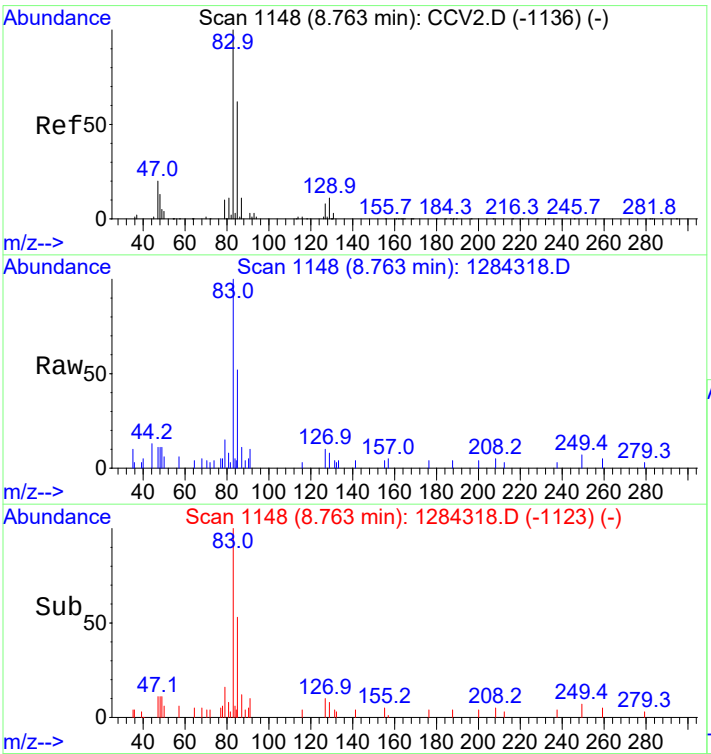


#39
Chloroform
Concen: 1.20 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.01 min
Lab File: 1284318.D
Acq: 1 Feb 2023 17:12

Tgt Ion: 83 Resp: 24264

Ion	Ratio	Lower	Upper
83	100		
85	69.6	45.2	85.2

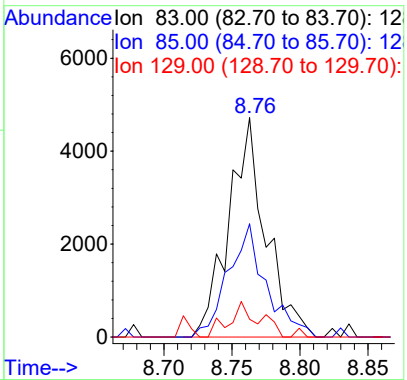


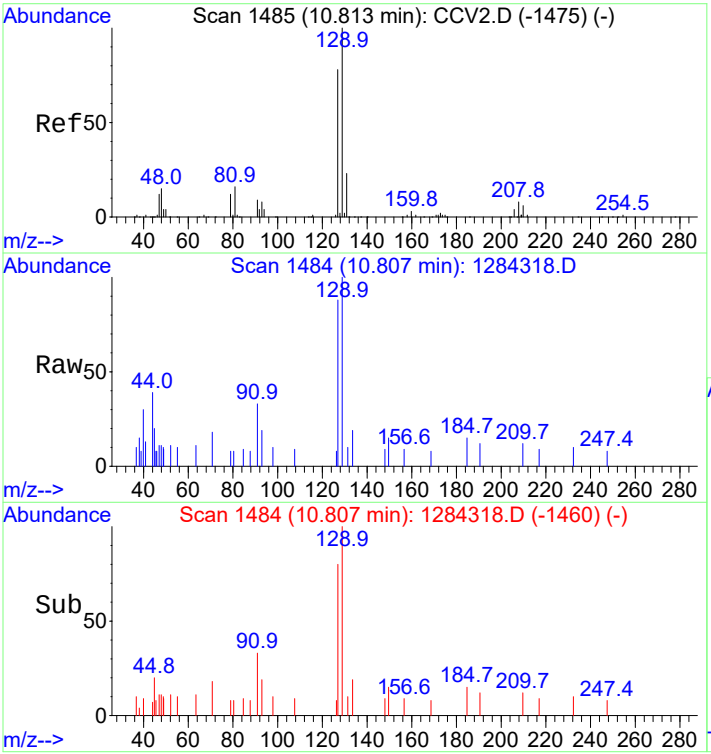


#56
Bromodiclrma
Concen: 0.65 ug/L
RT: 8.76 min Scan# 1148
Delta R.T. -0.00 min
Lab File: 1284318.D
Acq: 1 Feb 2023 17:12

Tgt Ion: 83 Resp: 8971

Ion	Ratio	Lower	Upper
83	100		
85	52.3	46.2	86.2
129	0.0	0.0	32.4

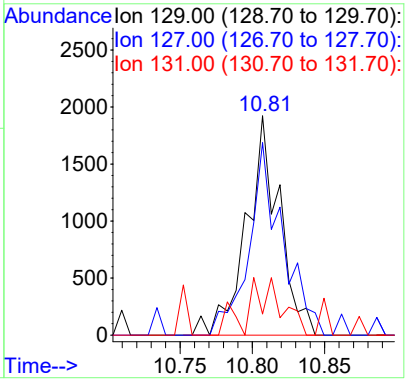




#70
Clorodibrmta
Concen: 0.88 ug/L
RT: 10.81 min Scan# 1484
Delta R.T. -0.01 min
Lab File: 1284318.D
Acq: 1 Feb 2023 17:12

Tgt Ion:129 Resp: 3045

Ion	Ratio	Lower	Upper
129	100		
127	89.6	56.0	96.0
131	0.0	3.2	43.2#



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284319.D Vial: 19
Acq On : 1 Feb 2023 17:43 Operator: DGS-RLD
Sample : 268887,1284319, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:03:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1044542	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	904347	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	462808	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	279890	20.896	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104 %			
45) SURR12DCAd4	7.26	102	75150	19.836	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.71	98	1090048	20.957	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105 %			
83) SURR4BrFBenz	13.25	95	424490	19.413	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97 %			

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) Dichloroflmethane	3.18	67	3666	N.D.
8) Trichlorofma	3.26	101	2535	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	0.00	43	0	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	0.00	76	0	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) tbutylalcohol	0.00	59	0	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	0.00	42	0	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284319.D Vial: 19
Acq On : 1 Feb 2023 17:43 Operator: DGS-RLD
Sample : 268887,1284319, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:03:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	3948	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1284319.D Vial: 19
Acq On : 1 Feb 2023 17:43 Operator: DGS-RLD
Sample : 268887,1284319, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:03:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

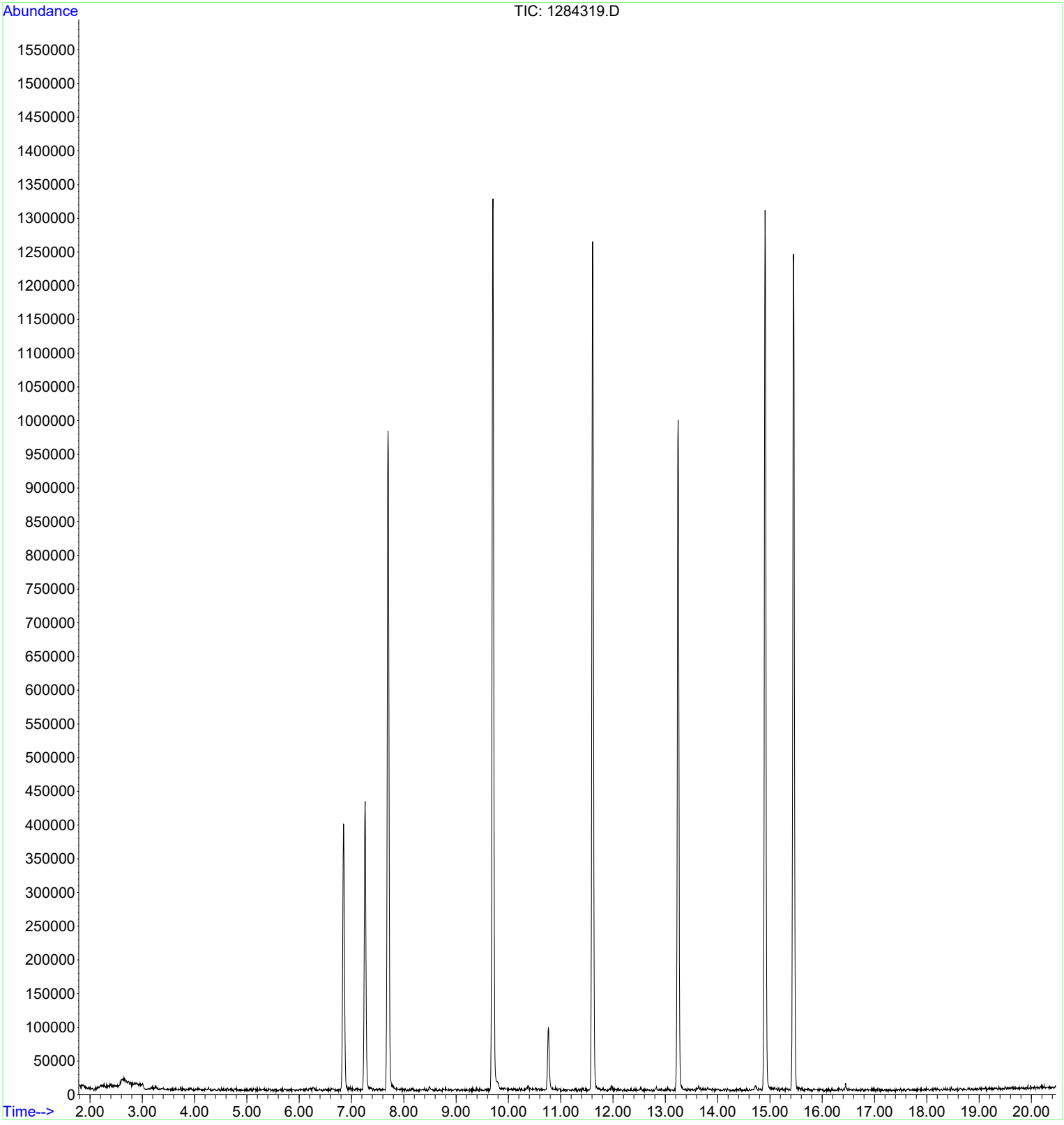
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284319.D Vial: 19
Acq On : 1 Feb 2023 17:43 Operator: DGS-RLD
Sample : 268887,1284319, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:03:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284320.D Vial: 20
Acq On : 1 Feb 2023 18:11 Operator: DGS-RLD
Sample : 268887,1284320, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:32:01 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1063972	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	912823	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	461315	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	273437	20.041	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %			
45) SURR12DCAd4	7.26	102	75728	19.624	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98 %			
61) SURRd8Tolule	9.70	98	1101288	20.786	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104 %			
83) SURR4BrFBenz	13.25	95	429152	19.690	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %			

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) Dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	0.00	101	0	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	0.00	43	0	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	0.00	76	0	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) tbutylalcohol	0.00	59	0	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	0.00	42	0	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284320.D Vial: 20
Acq On : 1 Feb 2023 18:11 Operator: DGS-RLD
Sample : 268887,1284320, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:32:01 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	56183	2.7570	ug/L	99
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.12	119	184573	13.7045	ug/L	96
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	9021	0.7058	ug/L	97
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.79	92	7749	0.2458	ug/L	99
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	11.97	106	3496	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284320.D Vial: 20
Acq On : 1 Feb 2023 18:11 Operator: DGS-RLD
Sample : 268887,1284320, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:32:01 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

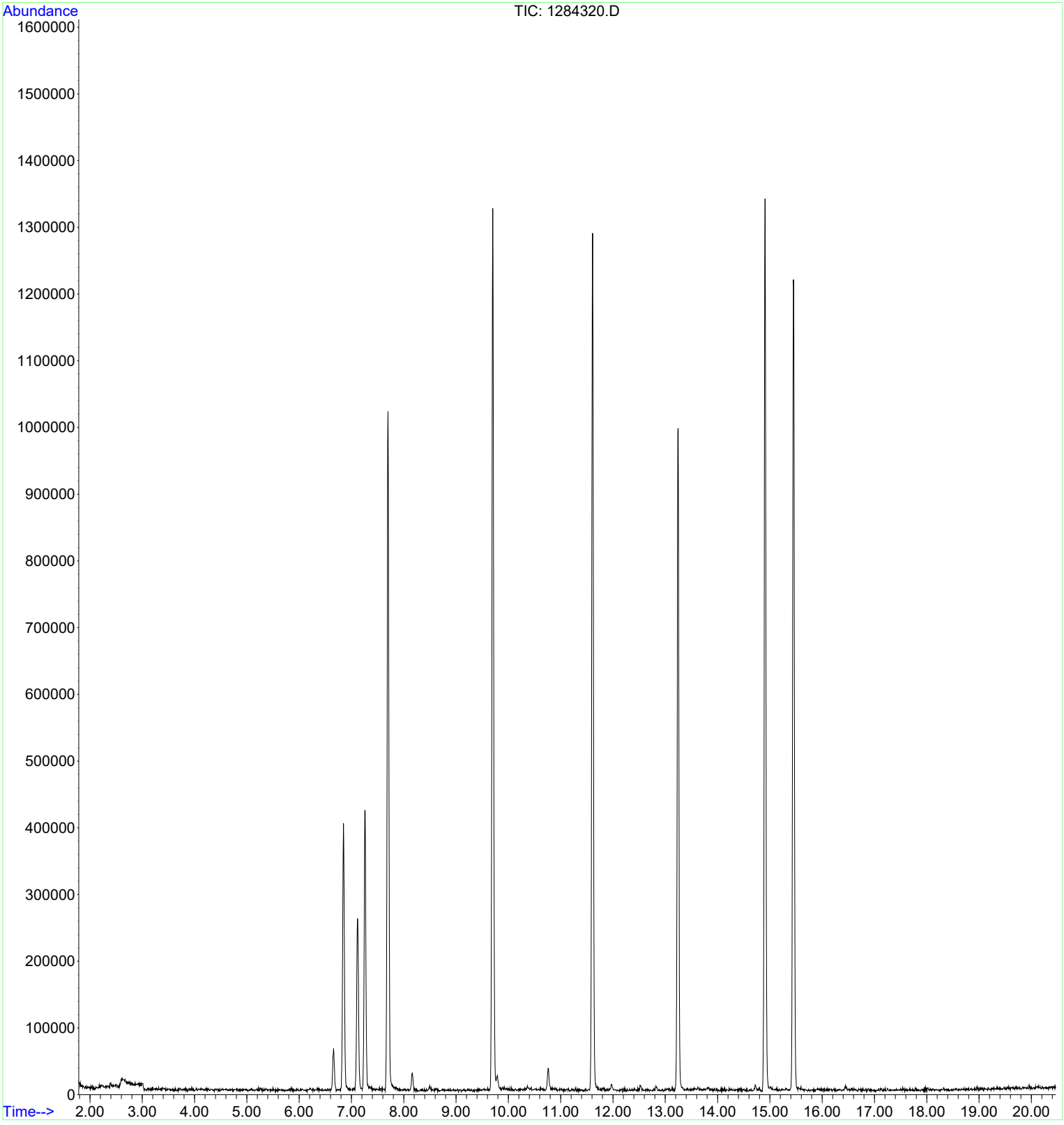
(#) = qualifier out of range (m) = manual integration

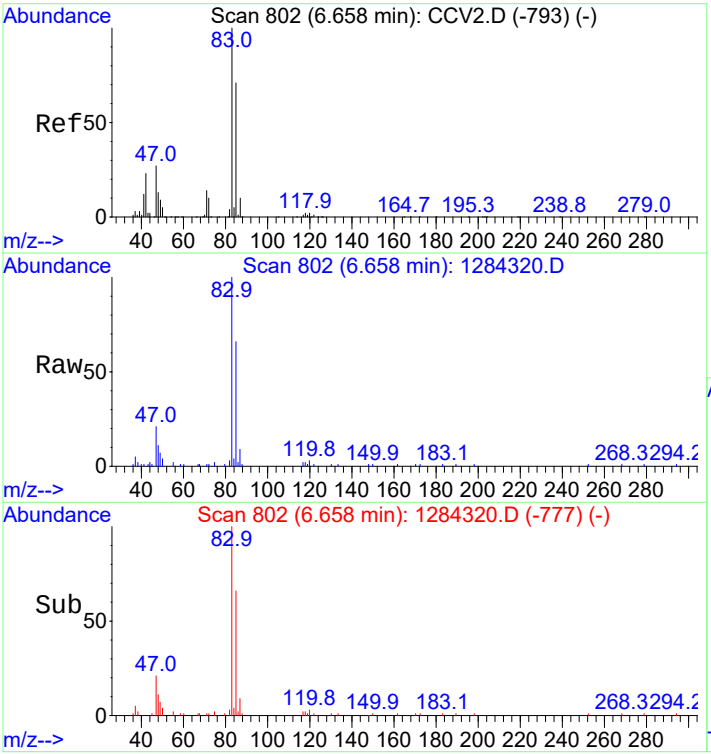
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284320.D Vial: 20
Acq On : 1 Feb 2023 18:11 Operator: DGS-RLD
Sample : 268887,1284320, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 18:32:01 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

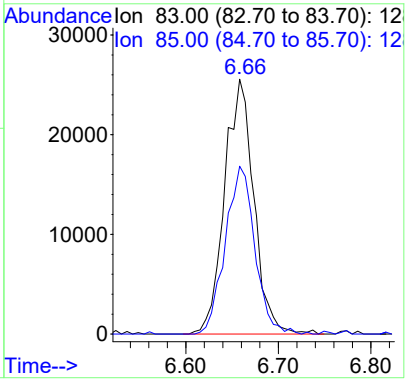


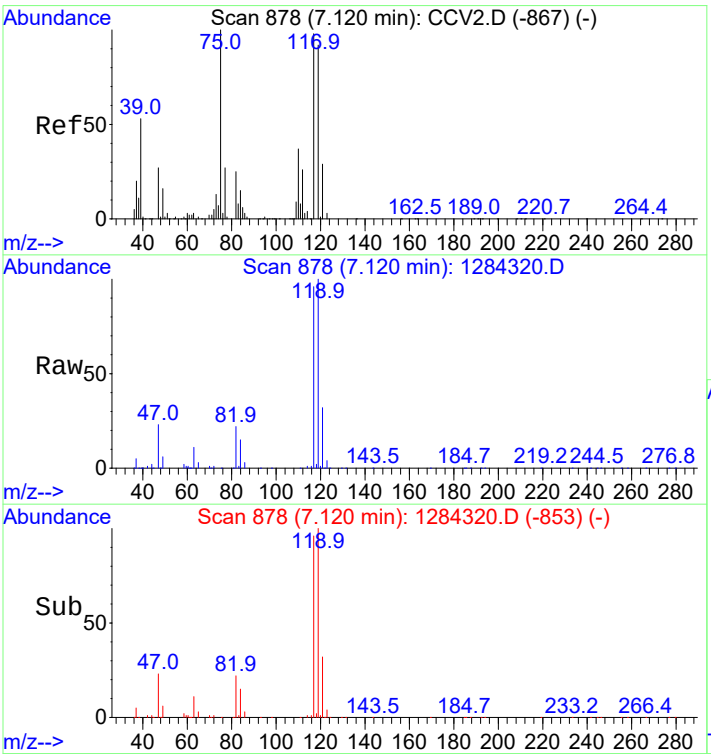


#39
Chloroform
Concen: 2.76 ug/L
RT: 6.66 min Scan# 802
Delta R.T. -0.00 min
Lab File: 1284320.D
Acq: 1 Feb 2023 18:11

Tgt Ion: 83 Resp: 56183

Ion	Ratio	Lower	Upper
83	100		
85	66.4	45.2	85.2

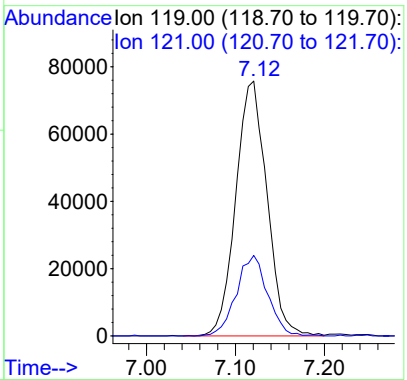


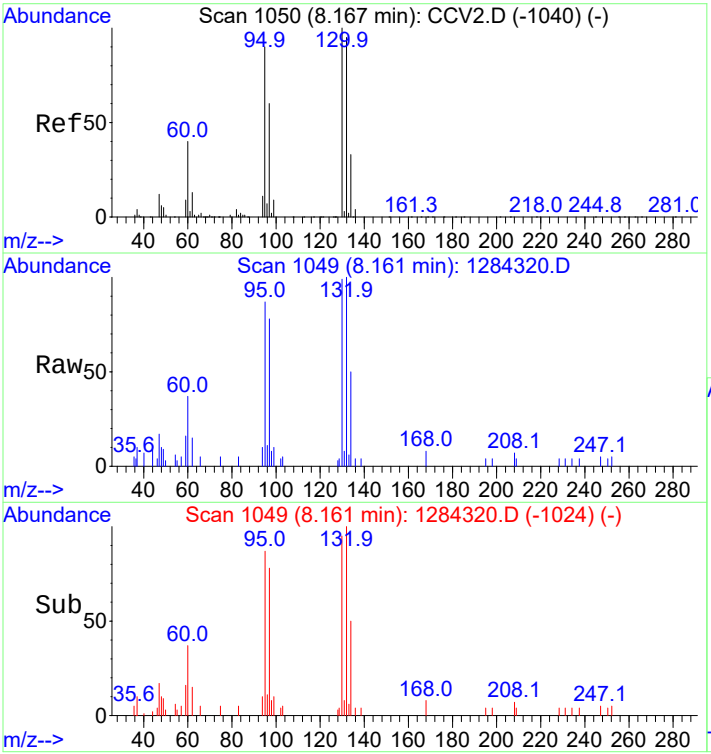


#43
Carbtetraclo
Concen: 13.70 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1284320.D
Acq: 1 Feb 2023 18:11

Tgt Ion:119 Resp: 184573

Ion	Ratio	Lower	Upper
119	100		
121	31.7	9.8	49.8

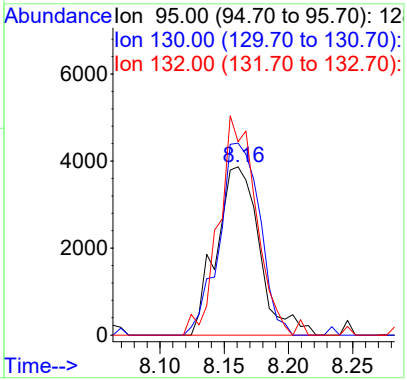


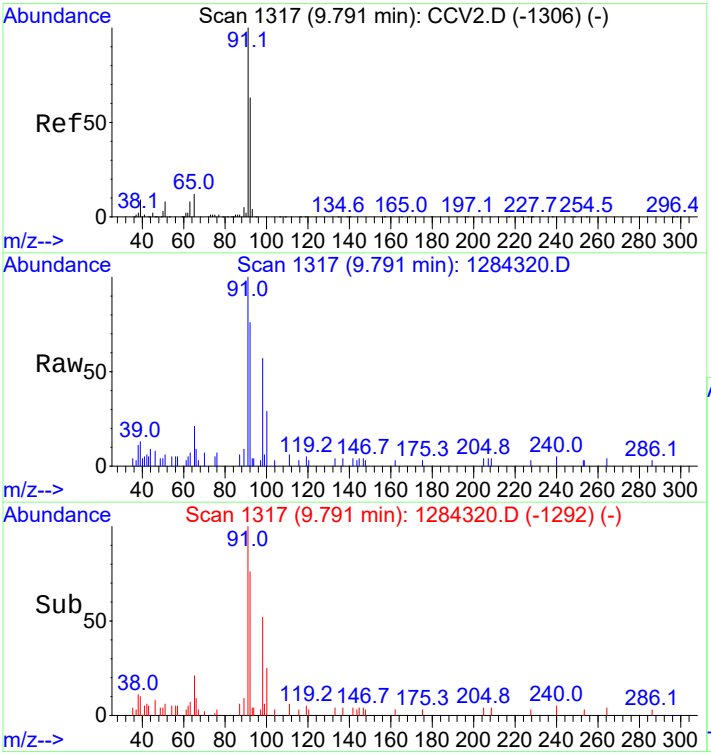


#49
trichloroete
Concen: 0.71 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.00 min
Lab File: 1284320.D
Acq: 1 Feb 2023 18:11

Tgt Ion: 95 Resp: 9021

Ion	Ratio	Lower	Upper
95	100		
130	107.7	90.0	130.0
132	111.6	87.2	127.2

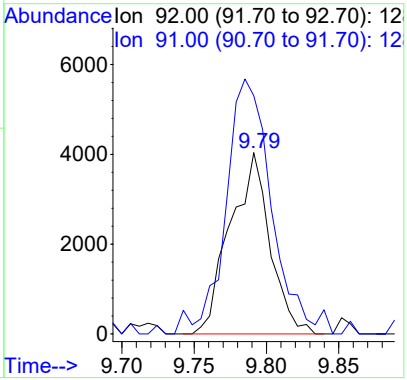




#62
Toluene
Concen: 0.25 ug/L
RT: 9.79 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 1284320.D
Acq: 1 Feb 2023 18:11

Tgt Ion: 92 Resp: 7749

Ion	Ratio	Lower	Upper
92	100		
91	163.2	144.1	184.1



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284321.D Vial: 21
Acq On : 1 Feb 2023 18:42 Operator: DGS-RLD
Sample : 268887,1284321, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:02:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1064098	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	918443	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	468961	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	285489	20.922	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105	%		
45) SURR12DCAd4	7.27	102	79271	20.539	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.70	98	1106529	20.883	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.25	95	426636	19.255	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 96	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.86	59	3052	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284321.D Vial: 21
Acq On : 1 Feb 2023 18:42 Operator: DGS-RLD
Sample : 268887,1284321, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:02:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	178215	8.7443	ug/L		99
40)	111trichlota	0.00	97	0	N.D.			
42)	Cyclohexane	0.00	56	0	N.D.			
43)	Carbtetraclo	7.12	119	780911	53.1996	ug/L		94
44)	11dicloprope	0.00	110	0	N.D.			
46)	Benzene	0.00	78	0	N.D.			
47)	12dichlorota	7.35	62	5762	0.3376	ug/L	#	50
48)	TAME	0.00	73	0	N.D.			
49)	trichloroete	8.17	95	133688	10.4585	ug/L		96
50)	methylcyclohexane	0.00	83	0	N.D.			
51)	12dicloropra	0.00	63	0	N.D.			
52)	23Dicl1propene	0.00	75	0	N.D.			
53)	Dibromometha	0.00	93	0	N.D.			
54)	methylmethacrylate	0.00	69	0	N.D.			
55)	14dioxane	0.00	88	0	N.D.			
56)	Bromodiclrma	0.00	83	0	N.D.			
57)	2Nitropropane	0.00	43	0	N.D.			
58)	2CLEVE	0.00	63	0	N.D.			
59)	c13dicloproe	0.00	75	0	N.D.			
60)	4Meth2Pentan	0.00	43	0	N.D.			
62)	Toluene	9.78	92	5316	N.D.			
63)	t13Dicloprop	0.00	75	0	N.D.			
64)	ethylmethacrylate	0.00	69	0	N.D.			
65)	112Triclotha	0.00	83	0	N.D.			
66)	Tetrachlorte	0.00	166	0	N.D.			
67)	13Diclorpropa	0.00	76	0	N.D.			
69)	2Hexanone	0.00	43	0	N.D.			
70)	Clorodibrmta	0.00	129	0	N.D.			
71)	12Dibrometha	0.00	107	0	N.D.			
72)	Chlorobenzen	0.00	112	0	N.D.			
73)	1Clhexane	0.00	91	0	N.D.			
74)	1112Tetclota	0.00	131	0	N.D.			
75)	Ethylbenzene	0.00	91	0	N.D.			
76)	m p-Xylene	0.00	106	0	N.D.			
77)	o-Xylene	0.00	106	0	N.D.			
78)	Styrene	0.00	104	0	N.D.			
79)	Bromoform	0.00	173	0	N.D.			
80)	Isopropylben	0.00	105	0	N.D.			
81)	cyclohexanone	0.00	55	0	N.D.			
84)	Bromobenzene	0.00	156	0	N.D.			
85)	1122Tetrclta	0.00	83	0	N.D.			
86)	123Triclproa	0.00	75	0	N.D.			
87)	14dichloro2butene	0.00	53	0	N.D.			
88)	n-Propylbenz	0.00	91	0	N.D.			
89)	2chlorotolue	0.00	91	0	N.D.			
90)	4chlorotolue	0.00	91	0	N.D.			
91)	135Trimebenz	0.00	105	0	N.D.			
92)	tbutylbenzen	0.00	119	0	N.D.			
93)	124Trimetben	0.00	105	0	N.D.			
94)	sbutylbenzen	0.00	105	0	N.D.			
95)	13Diclorbenz	0.00	146	0	N.D.			
96)	pIsopropylto	0.00	119	0	N.D.			
97)	14dichlorobe	0.00	146	0	N.D.			
98)	12dichlorobe	0.00	146	0	N.D.			
99)	nButylbenzen	0.00	91	0	N.D.			
100)	12dibromo3cl	0.00	157	0	N.D.			
101)	135Trichlorobenzene	0.00	180	0	N.D.			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284321.D Vial: 21
Acq On : 1 Feb 2023 18:42 Operator: DGS-RLD
Sample : 268887,1284321, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:02:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

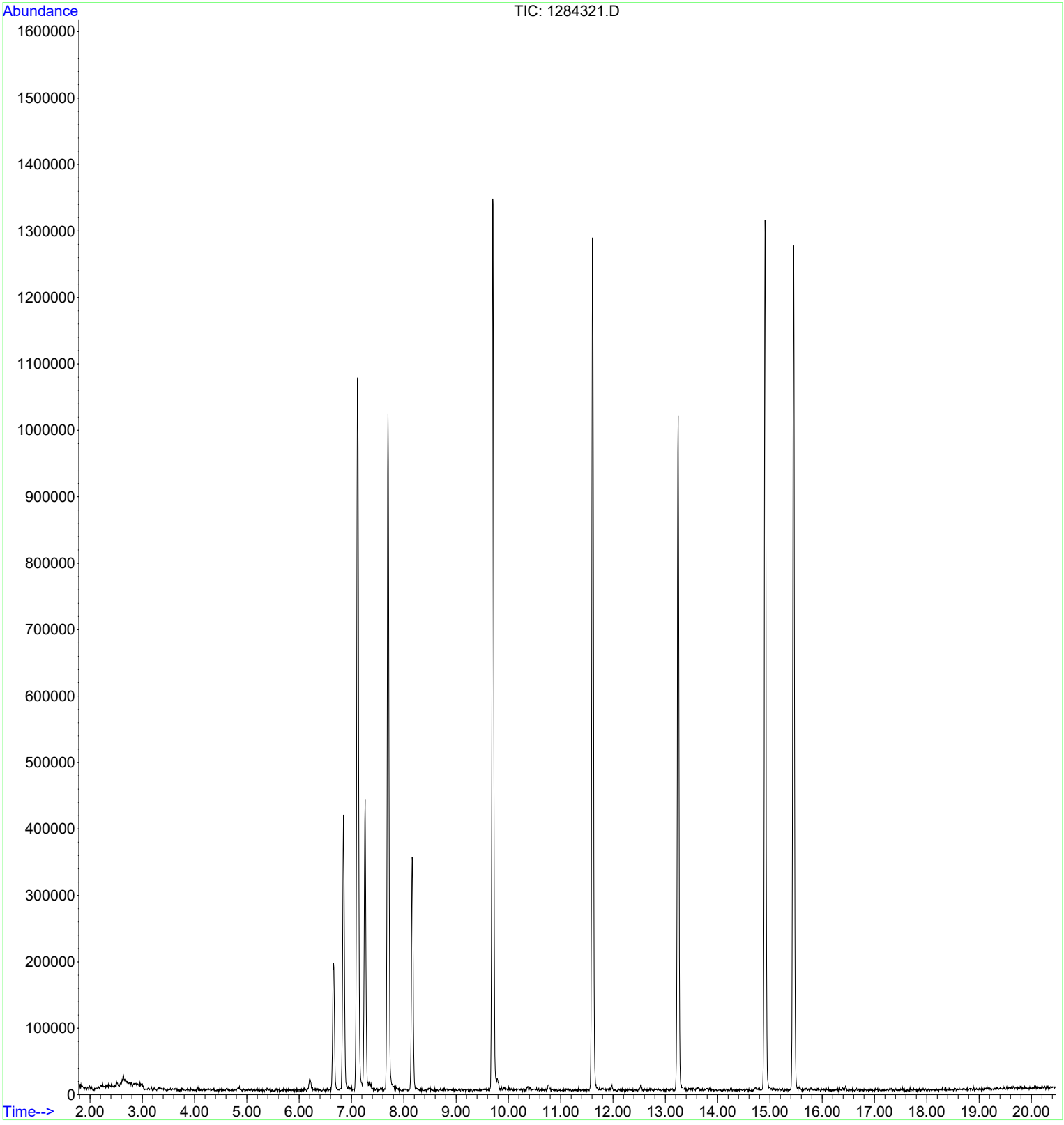
(#) = qualifier out of range (m) = manual integration

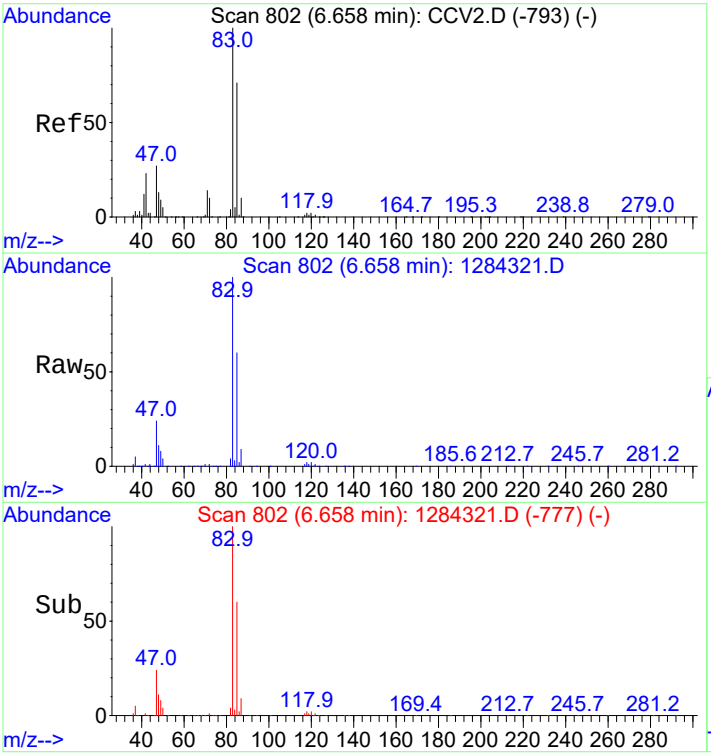
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284321.D Vial: 21
Acq On : 1 Feb 2023 18:42 Operator: DGS-RLD
Sample : 268887,1284321, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:02:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

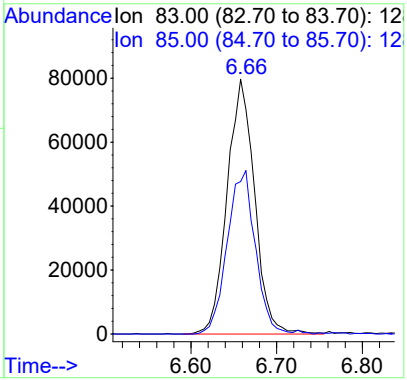


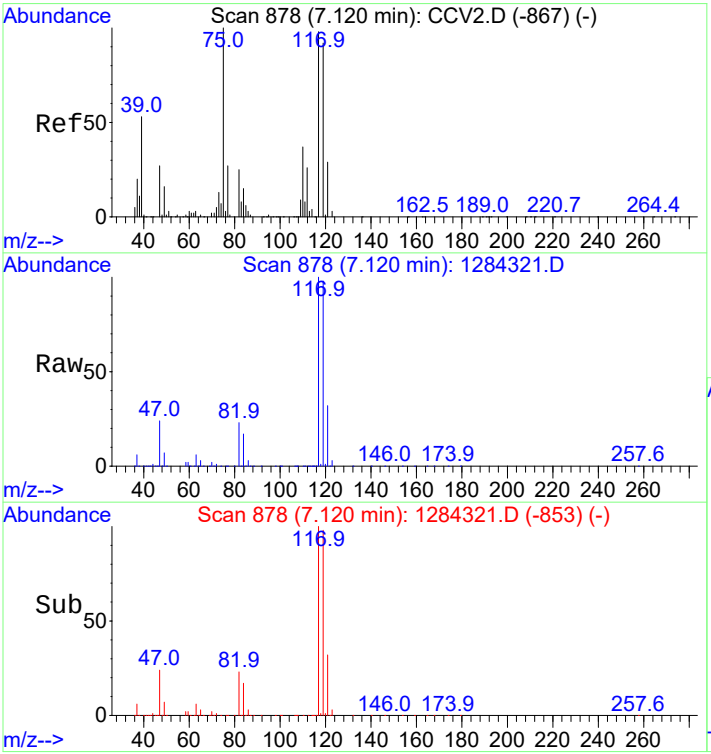


#39
Chloroform
Concen: 8.74 ug/L
RT: 6.66 min Scan# 802
Delta R.T. -0.00 min
Lab File: 1284321.D
Acq: 1 Feb 2023 18:42

Tgt Ion: 83 Resp: 178215

Ion	Ratio	Lower	Upper
83	100		
85	65.7	45.2	85.2

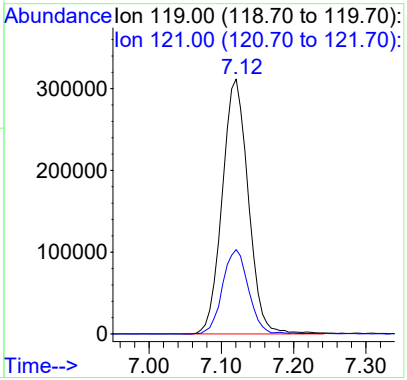


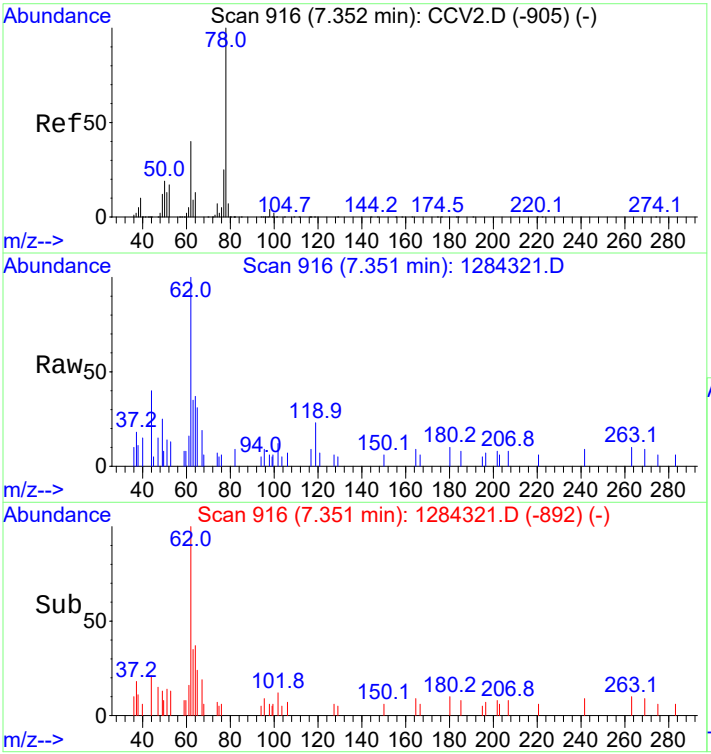


#43
Carbtetraclo
Concen: 53.20 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1284321.D
Acq: 1 Feb 2023 18:42

Tgt Ion:119 Resp: 780911

Ion	Ratio	Lower	Upper
119	100		
121	33.0	9.8	49.8

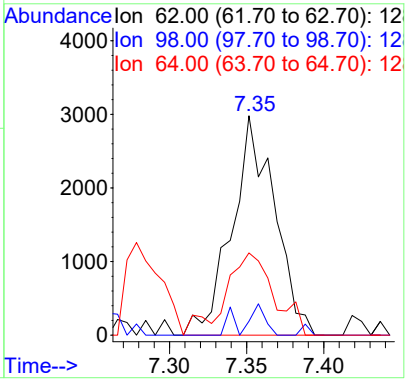


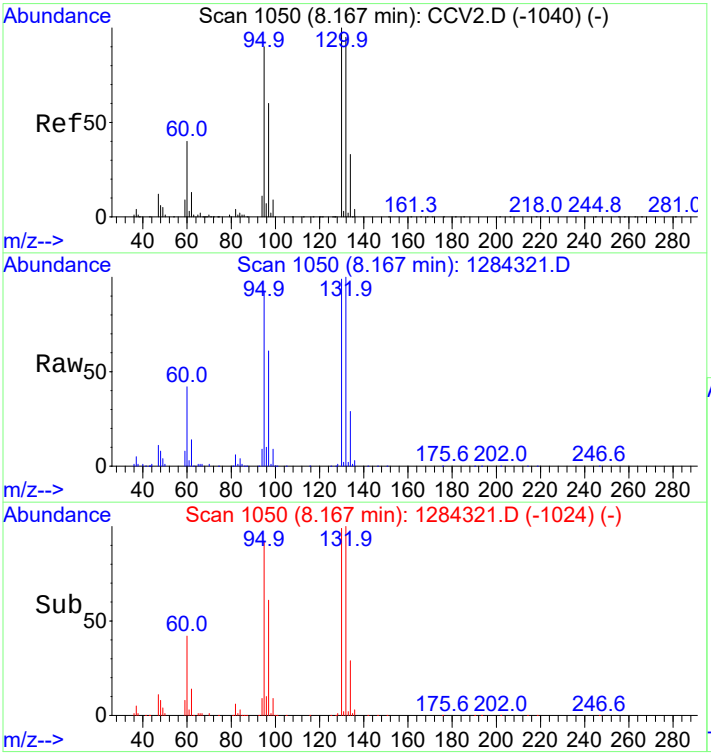


#47
12dichlorota
Concen: 0.34 ug/L
RT: 7.35 min Scan# 916
Delta R.T. -0.01 min
Lab File: 1284321.D
Acq: 1 Feb 2023 18:42

Tgt Ion: 62 Resp: 5762

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	28.7
64	0.0	12.2	52.2#

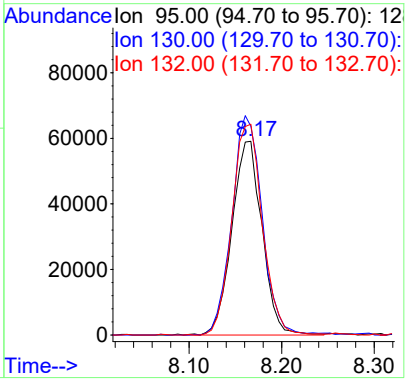




#49
trichloroete
Concen: 10.46 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1284321.D
Acq: 1 Feb 2023 18:42

Tgt Ion: 95 Resp: 133688

Ion	Ratio	Lower	Upper
95	100		
130	114.8	90.0	130.0
132	110.6	87.2	127.2



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284322.D Vial: 22
Acq On : 1 Feb 2023 19:11 Operator: DGS-RLD
Sample : 268887,1284322, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:31:41 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1055079	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	896984	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	462268	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	278343	20.573	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.25	102	75882	19.829	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.70	98	1099268	20.923	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.25	95	423137	19.374	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284322.D Vial: 22
Acq On : 1 Feb 2023 19:11 Operator: DGS-RLD
Sample : 268887,1284322, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:31:41 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	178625	8.8393	ug/L		99
40)	111trichlota	0.00	97	0	N.D.			
42)	Cyclohexane	0.00	56	0	N.D.			
43)	Carbtetraclo	7.12	119	798108	54.7262	ug/L		92
44)	11dicloprope	0.00	110	0	N.D.			
46)	Benzene	0.00	78	0	N.D.			
47)	12dichlorota	7.35	62	7523	0.4445	ug/L	#	50
48)	TAME	0.00	73	0	N.D.			
49)	trichloroete	8.16	95	142095	11.2112	ug/L		97
50)	methylcyclohexane	0.00	83	0	N.D.			
51)	12dicloropra	0.00	63	0	N.D.			
52)	23Dicl1propene	0.00	75	0	N.D.			
53)	Dibromometha	0.00	93	0	N.D.			
54)	methylmethacrylate	0.00	69	0	N.D.			
55)	14dioxane	0.00	88	0	N.D.			
56)	Bromodiclrma	0.00	83	0	N.D.			
57)	2Nitropropane	0.00	43	0	N.D.			
58)	2CLEVE	0.00	63	0	N.D.			
59)	c13dicloproe	0.00	75	0	N.D.			
60)	4Meth2Pentan	0.00	43	0	N.D.			
62)	Toluene	9.78	92	4845	N.D.			
63)	t13Dicloprop	0.00	75	0	N.D.			
64)	ethylmethacrylate	0.00	69	0	N.D.			
65)	112Triclotha	0.00	83	0	N.D.			
66)	Tetrachlorte	0.00	166	0	N.D.			
67)	13Diclorpropa	0.00	76	0	N.D.			
69)	2Hexanone	0.00	43	0	N.D.			
70)	Clorodibrmta	0.00	129	0	N.D.			
71)	12Dibrometha	0.00	107	0	N.D.			
72)	Chlorobenzen	0.00	112	0	N.D.			
73)	1Clhexane	0.00	91	0	N.D.			
74)	1112Tetclota	0.00	131	0	N.D.			
75)	Ethylbenzene	0.00	91	0	N.D.			
76)	m p-Xylene	0.00	106	0	N.D.			
77)	o-Xylene	0.00	106	0	N.D.			
78)	Styrene	12.54	104	2858	N.D.			
79)	Bromoform	0.00	173	0	N.D.			
80)	Isopropylben	0.00	105	0	N.D.			
81)	cyclohexanone	0.00	55	0	N.D.			
84)	Bromobenzene	0.00	156	0	N.D.			
85)	1122Tetrclta	0.00	83	0	N.D.			
86)	123Triclproa	0.00	75	0	N.D.			
87)	14dichloro2butene	0.00	53	0	N.D.			
88)	n-Propylbenz	0.00	91	0	N.D.			
89)	2chlorotolue	0.00	91	0	N.D.			
90)	4chlorotolue	0.00	91	0	N.D.			
91)	135Trimebenz	0.00	105	0	N.D.			
92)	tbutylbenzen	0.00	119	0	N.D.			
93)	124Trimetben	0.00	105	0	N.D.			
94)	sbutylbenzen	0.00	105	0	N.D.			
95)	13Diclorbenz	0.00	146	0	N.D.			
96)	pIsopropylto	0.00	119	0	N.D.			
97)	14dichlorobe	0.00	146	0	N.D.			
98)	12dichlorobe	0.00	146	0	N.D.			
99)	nButylbenzen	0.00	91	0	N.D.			
100)	12dibromo3cl	0.00	157	0	N.D.			
101)	135Trichlorobenzene	0.00	180	0	N.D.			

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1284322.D Vial: 22
Acq On : 1 Feb 2023 19:11 Operator: DGS-RLD
Sample : 268887,1284322, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:31:41 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

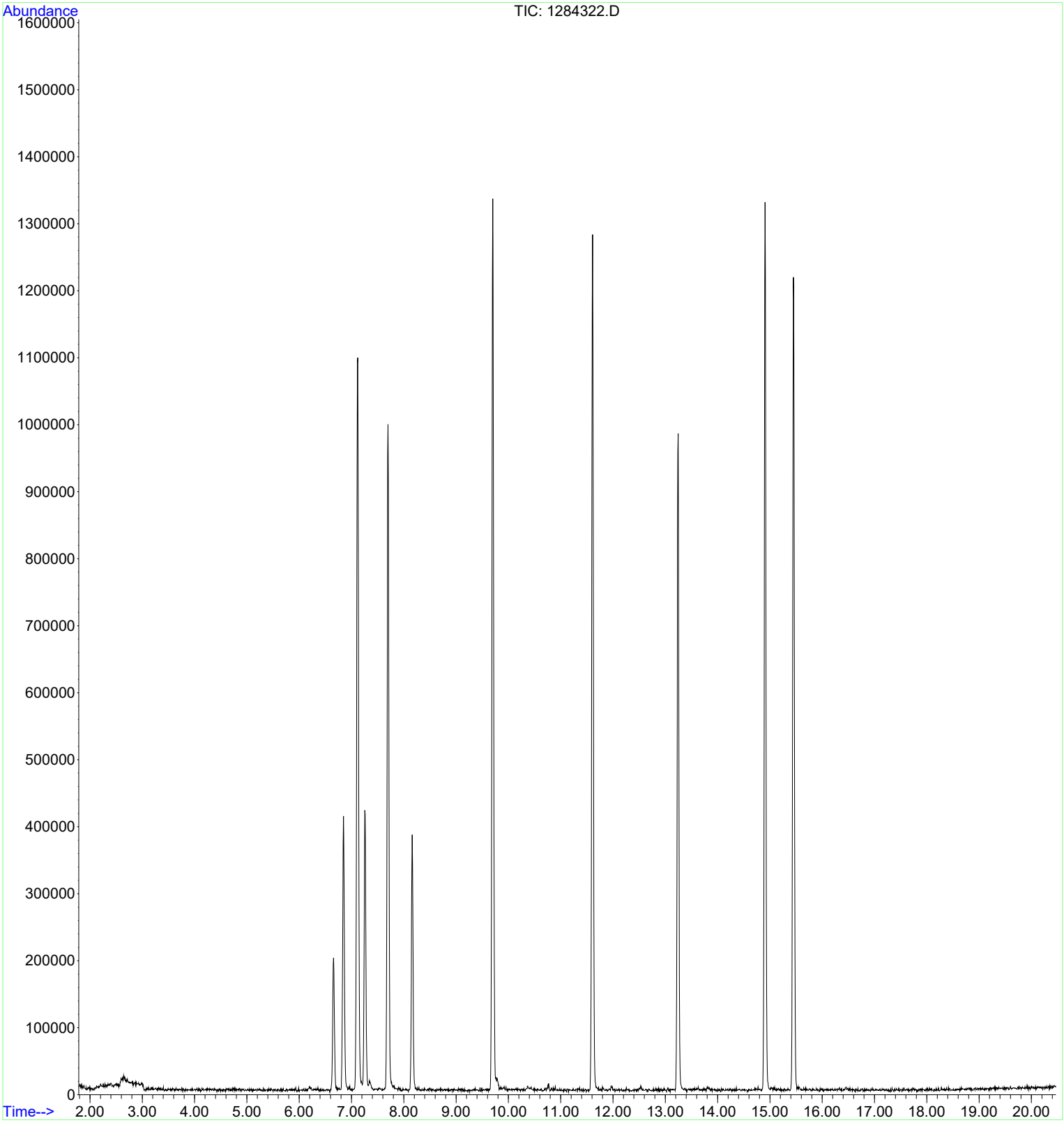
(#) = qualifier out of range (m) = manual integration

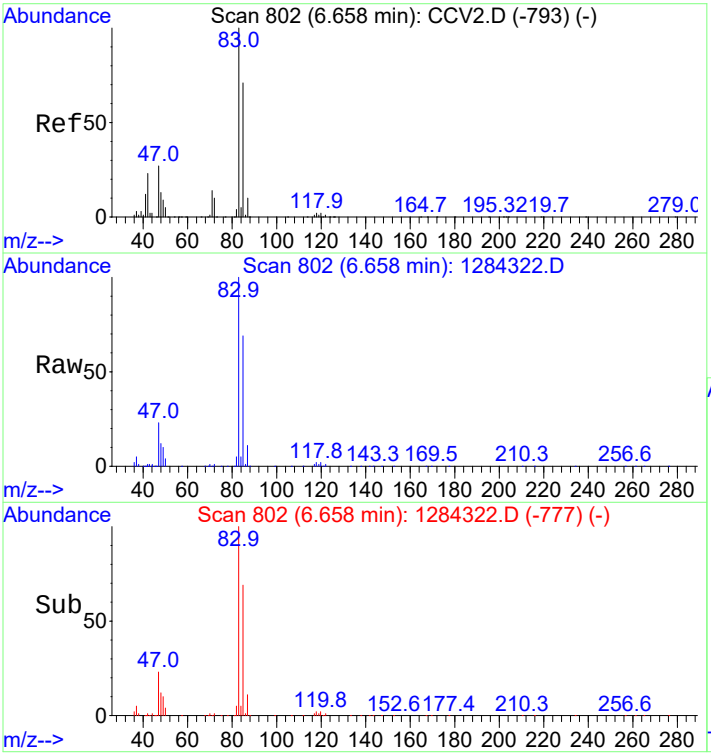
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284322.D Vial: 22
Acq On : 1 Feb 2023 19:11 Operator: DGS-RLD
Sample : 268887,1284322, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 19:31:41 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

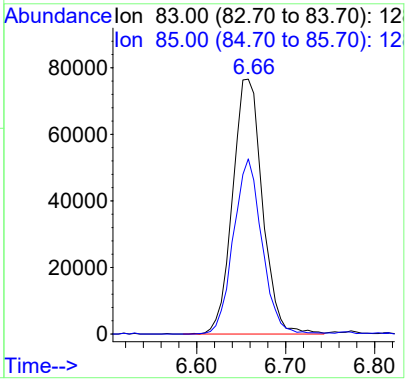


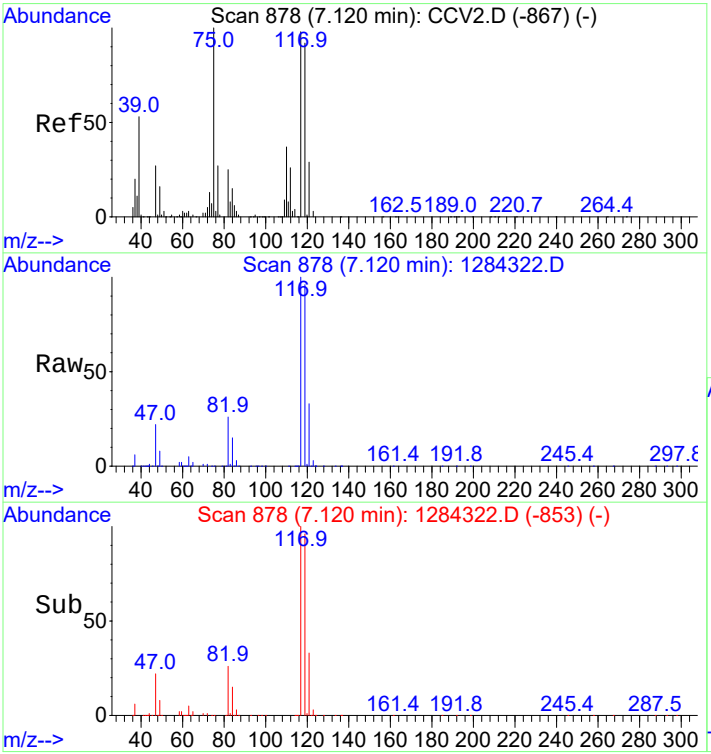


#39
Chloroform
Concen: 8.84 ug/L
RT: 6.66 min Scan# 802
Delta R.T. -0.00 min
Lab File: 1284322.D
Acq: 1 Feb 2023 19:11

Tgt Ion: 83 Resp: 178625

Ion	Ratio	Lower	Upper
83	100		
85	65.7	45.2	85.2

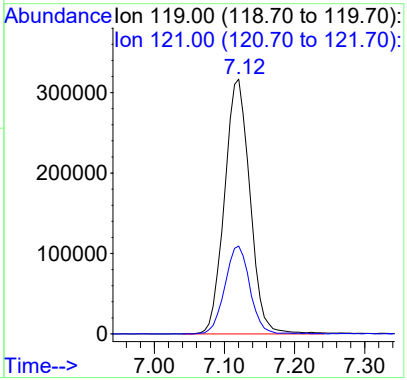


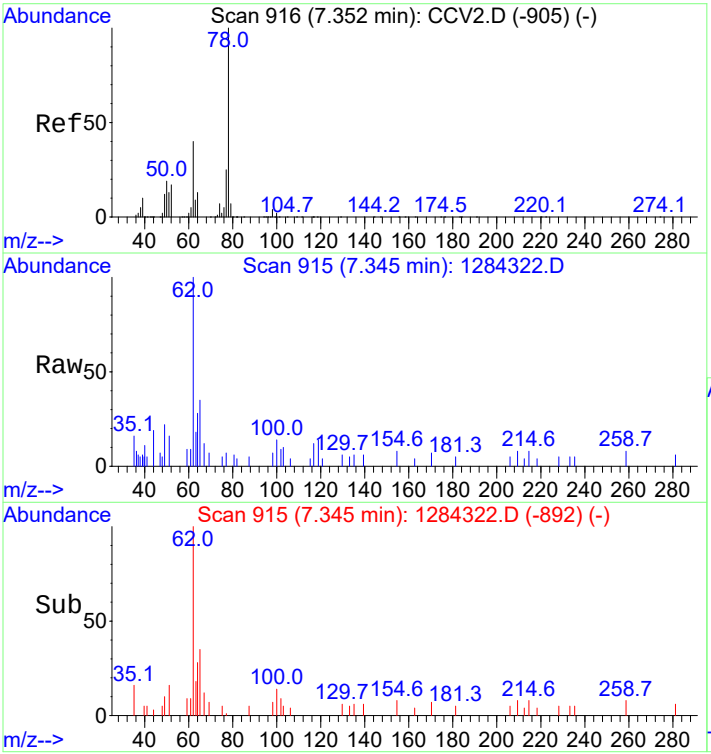


#43
Carbtetraclo
Concen: 54.73 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1284322.D
Acq: 1 Feb 2023 19:11

Tgt Ion:119 Resp: 798108

Ion	Ratio	Lower	Upper
119	100		
121	34.0	9.8	49.8

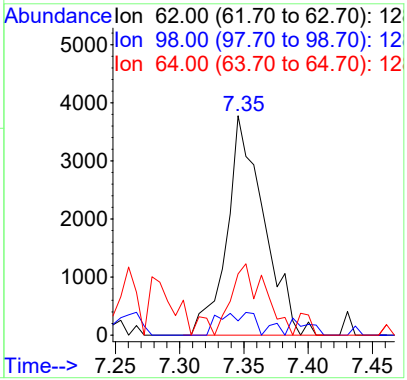


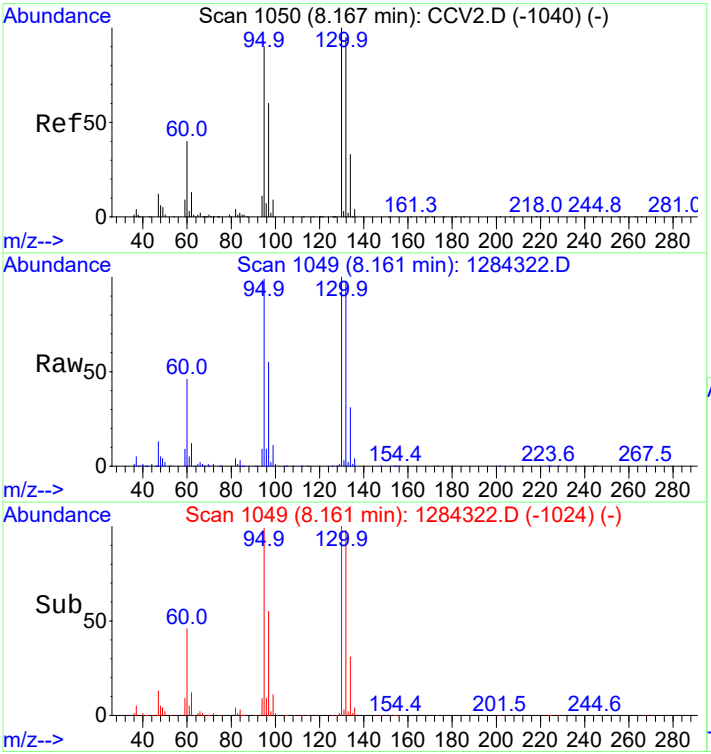


#47
12dichlorota
Concen: 0.44 ug/L
RT: 7.35 min Scan# 915
Delta R.T. -0.01 min
Lab File: 1284322.D
Acq: 1 Feb 2023 19:11

Tgt Ion: 62 Resp: 7523

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	28.7
64	0.0	12.2	52.2#

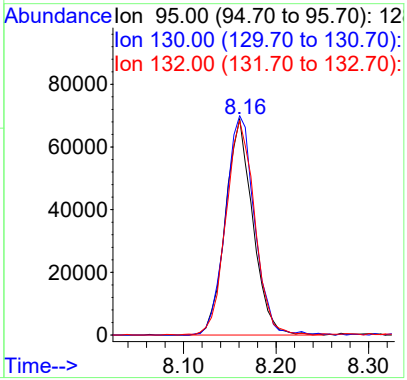




#49
trichloroete
Concen: 11.21 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.00 min
Lab File: 1284322.D
Acq: 1 Feb 2023 19:11

Tgt Ion: 95 Resp: 142095

Ion	Ratio	Lower	Upper
95	100		
130	107.5	90.0	130.0
132	103.9	87.2	127.2



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284323.D Vial: 23
Acq On : 1 Feb 2023 19:40 Operator: DGS-RLD
Sample : 268887,1284323, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:00:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1062232	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	908064	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	464073	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	276927	20.330 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102 %		
45) SURR12DCAd4	7.26	102	77940	20.230 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.70	98	1111168	21.007 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105 %		
83) SURR4BrFBenz	13.25	95	426686	19.460 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.72	67	11125	0.6087 ug/L #	88
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	4.02	101	4599	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284323.D Vial: 23
Acq On : 1 Feb 2023 19:40 Operator: DGS-RLD
Sample : 268887,1284323, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:00:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	7631	0.3751 ug/L	96
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.11	119	24915	2.5522 ug/L	90
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	5852	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	12.53	104	4729	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284323.D Vial: 23
Acq On : 1 Feb 2023 19:40 Operator: DGS-RLD
Sample : 268887,1284323, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:00:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

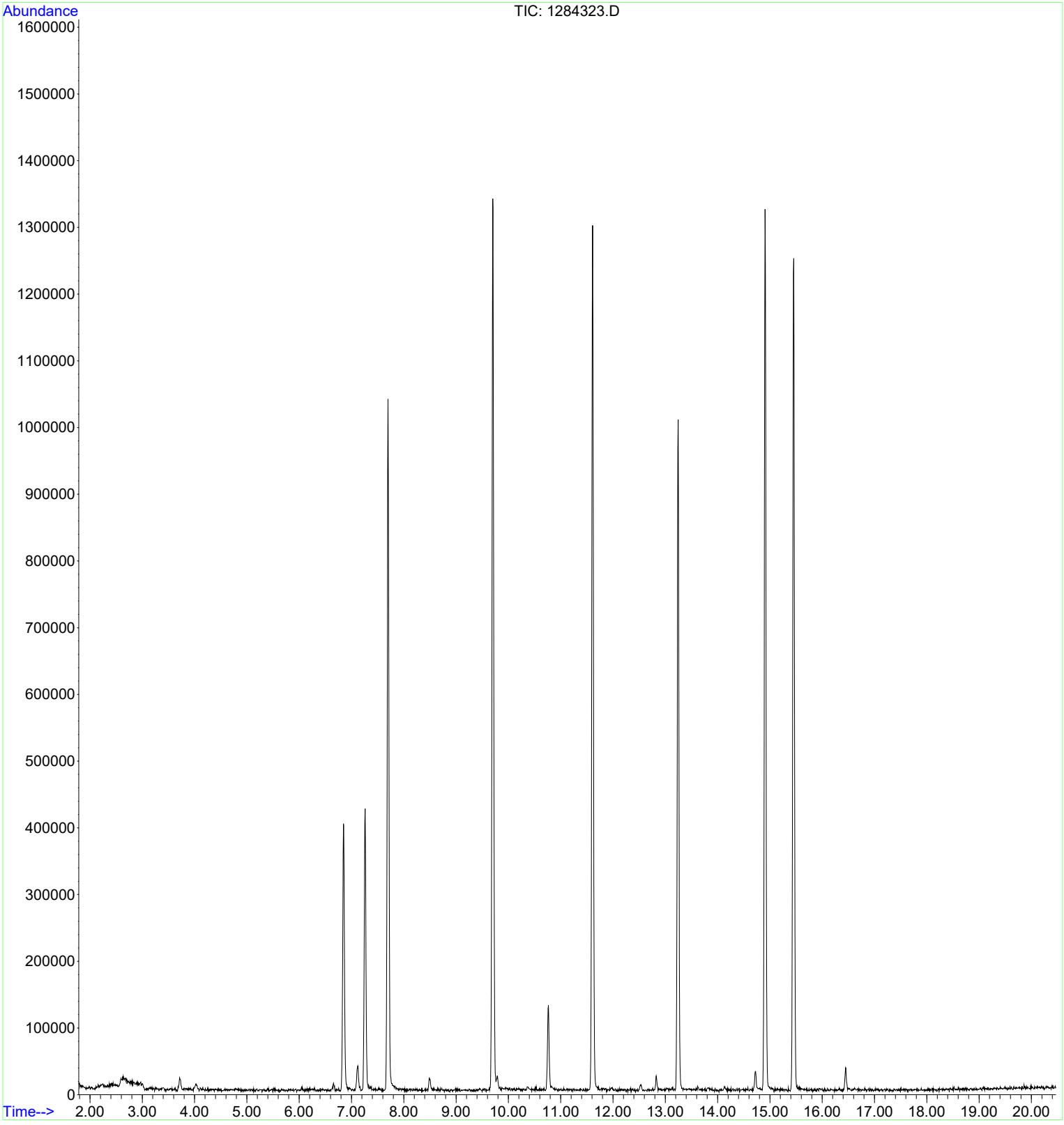
(#) = qualifier out of range (m) = manual integration

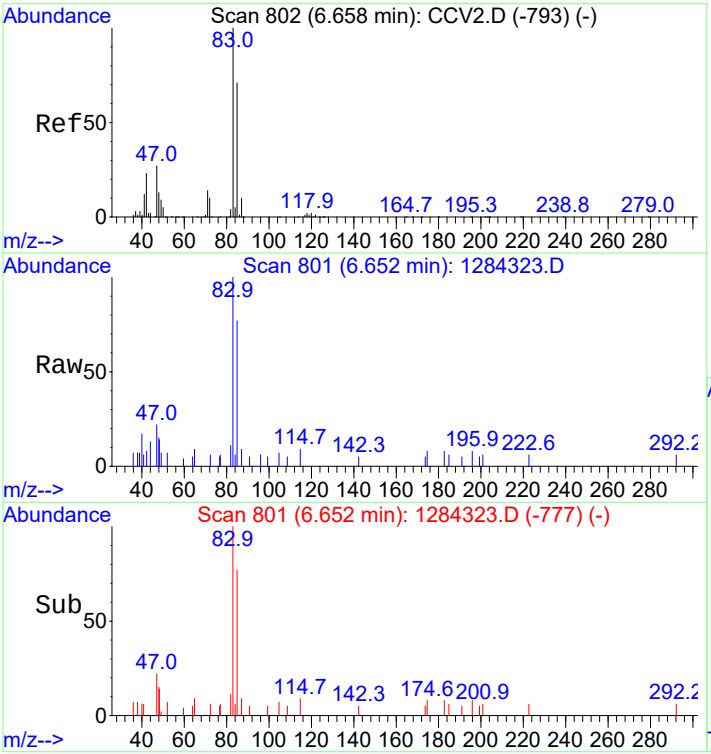
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284323.D Vial: 23
Acq On : 1 Feb 2023 19:40 Operator: DGS-RLD
Sample : 268887,1284323, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:00:46 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

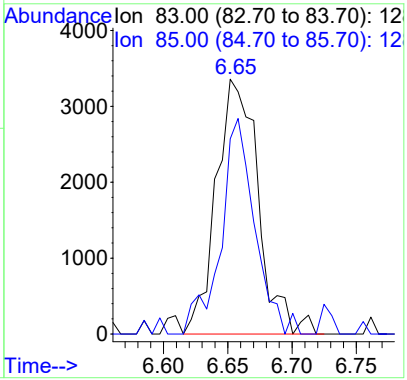


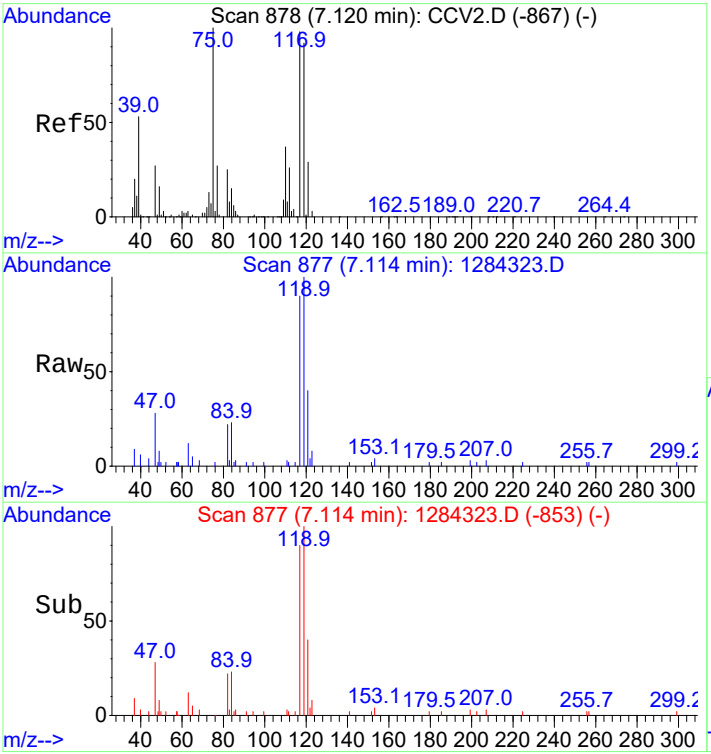


#39
Chloroform
Concen: 0.38 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.01 min
Lab File: 1284323.D
Acq: 1 Feb 2023 19:40

Tgt Ion: 83 Resp: 7631

Ion	Ratio	Lower	Upper
83	100		
85	68.5	45.2	85.2

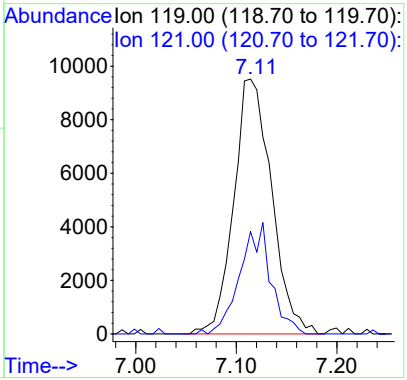




#43
Carbtetraclo
Concen: 2.55 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1284323.D
Acq: 1 Feb 2023 19:40

Tgt Ion:119 Resp: 24915

Ion	Ratio	Lower	Upper
119	100		
121	35.3	9.8	49.8



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284324.D Vial: 24
Acq On : 1 Feb 2023 20:10 Operator: DGS-RLD
Sample : 268887,1284324, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:31:29 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1068778	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	928744	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	476729	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	279057	20.361	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	75766	19.545	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98	%		
61) SURRd8Tolule	9.70	98	1114066	20.933	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.25	95	436623	19.385	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	3746	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	6.27	96	2967	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284324.D Vial: 24
Acq On : 1 Feb 2023 20:10 Operator: DGS-RLD
Sample : 268887,1284324, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:31:29 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	3223	N.D.			
40)	111trichlota	0.00	97	0	N.D.			
42)	Cyclohexane	0.00	56	0	N.D.			
43)	Carbtetraclo	7.12	119	8010	1.3496	ug/L	#	45
44)	11dicloprope	0.00	110	0	N.D.			
46)	Benzene	0.00	78	0	N.D.			
47)	12dichlorota	0.00	62	0	N.D.			
48)	TAME	0.00	73	0	N.D.			
49)	trichloroete	8.16	95	10714	0.8345	ug/L		97
50)	methylcyclohexane	0.00	83	0	N.D.			
51)	12dicloropra	0.00	63	0	N.D.			
52)	23Dicl1propene	0.00	75	0	N.D.			
53)	Dibromometha	0.00	93	0	N.D.			
54)	methylmethacrylate	0.00	69	0	N.D.			
55)	14dioxane	0.00	88	0	N.D.			
56)	Bromodiclrma	0.00	83	0	N.D.			
57)	2Nitropropane	0.00	43	0	N.D.			
58)	2CLEVE	0.00	63	0	N.D.			
59)	c13dicloproe	0.00	75	0	N.D.			
60)	4Meth2Pentan	0.00	43	0	N.D.			
62)	Toluene	9.78	92	4612	N.D.			
63)	t13Dicloprop	0.00	75	0	N.D.			
64)	ethylmethacrylate	0.00	69	0	N.D.			
65)	112Triclotha	0.00	83	0	N.D.			
66)	Tetrachlorte	0.00	166	0	N.D.			
67)	13Diclorpropa	0.00	76	0	N.D.			
69)	2Hexanone	0.00	43	0	N.D.			
70)	Clorodibrmta	0.00	129	0	N.D.			
71)	12Dibrometha	0.00	107	0	N.D.			
72)	Chlorobenzen	0.00	112	0	N.D.			
73)	1Clhexane	0.00	91	0	N.D.			
74)	1112Tetclota	0.00	131	0	N.D.			
75)	Ethylbenzene	0.00	91	0	N.D.			
76)	m p-Xylene	11.97	106	2770	N.D.			
77)	o-Xylene	0.00	106	0	N.D.			
78)	Styrene	0.00	104	0	N.D.			
79)	Bromoform	0.00	173	0	N.D.			
80)	Isopropylben	0.00	105	0	N.D.			
81)	cyclohexanone	0.00	55	0	N.D.			
84)	Bromobenzene	0.00	156	0	N.D.			
85)	1122Tetrclta	0.00	83	0	N.D.			
86)	123Triclproa	0.00	75	0	N.D.			
87)	14dichloro2butene	0.00	53	0	N.D.			
88)	n-Propylbenz	0.00	91	0	N.D.			
89)	2chlorotolue	0.00	91	0	N.D.			
90)	4chlorotolue	0.00	91	0	N.D.			
91)	135Trimebenz	0.00	105	0	N.D.			
92)	tbutylbenzen	0.00	119	0	N.D.			
93)	124Trimetben	14.42	105	2532	N.D.			
94)	sbutylbenzen	0.00	105	0	N.D.			
95)	13Diclorbenz	0.00	146	0	N.D.			
96)	pIsopropylto	0.00	119	0	N.D.			
97)	14dichlorobe	0.00	146	0	N.D.			
98)	12dichlorobe	0.00	146	0	N.D.			
99)	nButylbenzen	0.00	91	0	N.D.			
100)	12dibromo3cl	0.00	157	0	N.D.			
101)	135Trichlorobenzene	0.00	180	0	N.D.			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284324.D Vial: 24
Acq On : 1 Feb 2023 20:10 Operator: DGS-RLD
Sample : 268887,1284324, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:31:29 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

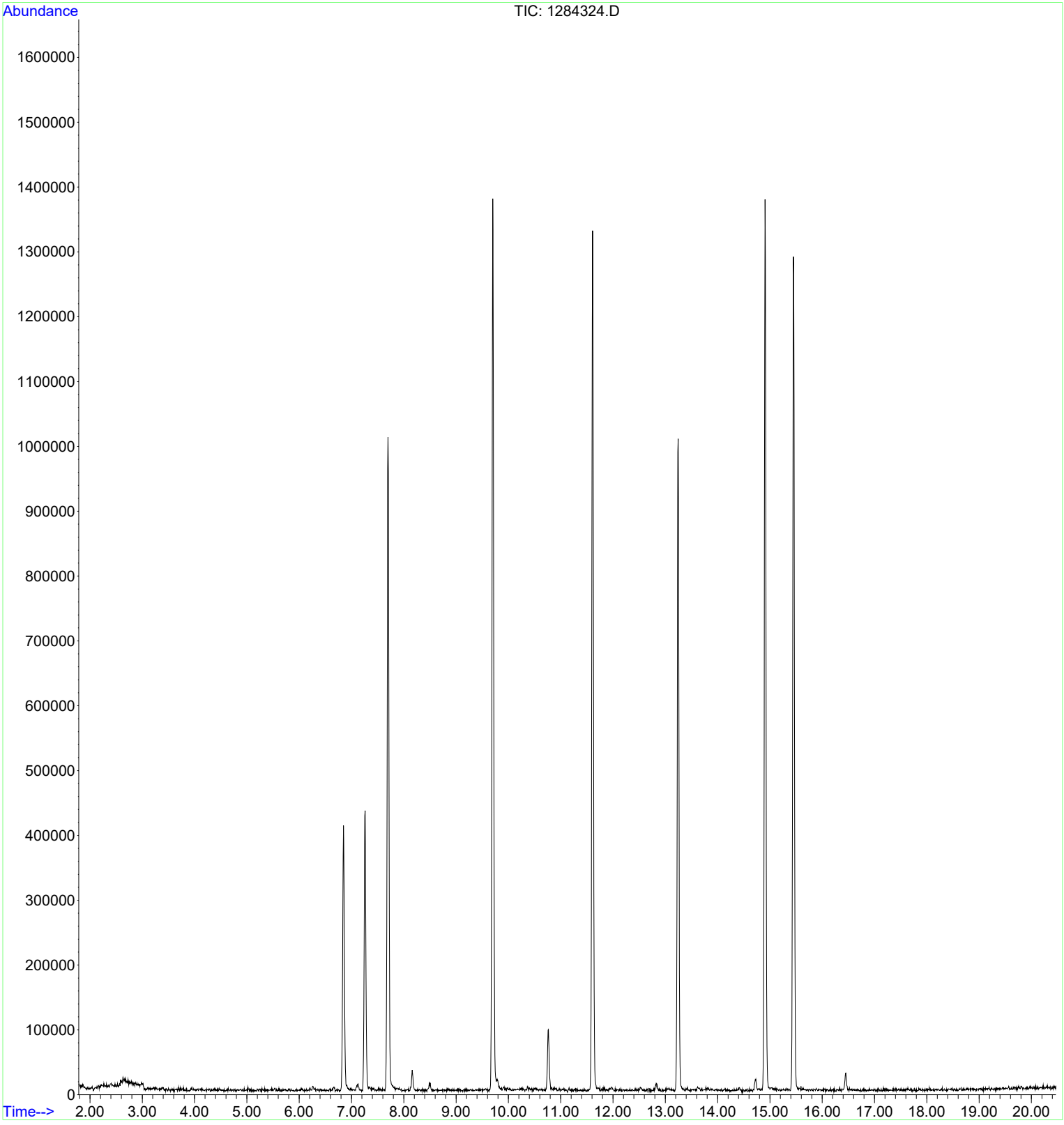
(#) = qualifier out of range (m) = manual integration

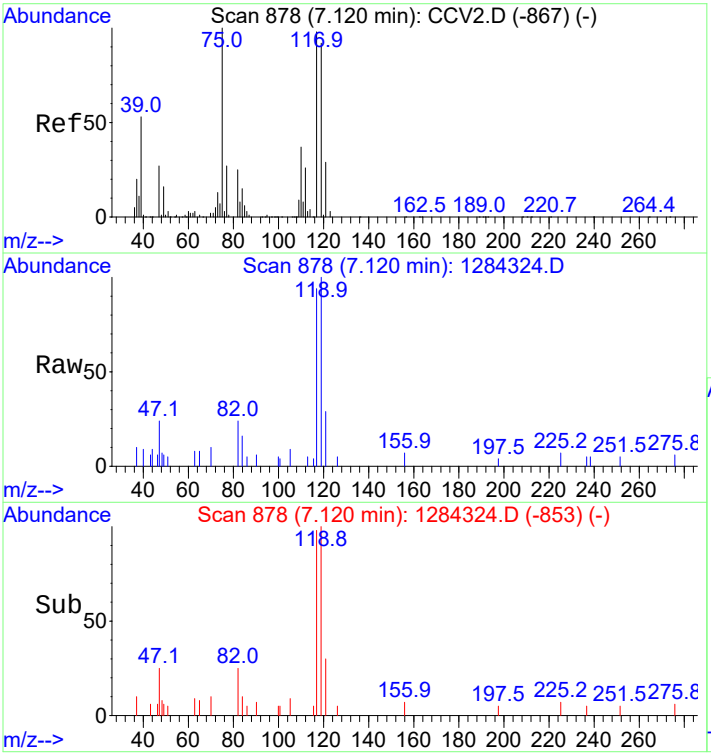
Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284324.D Vial: 24
Acq On : 1 Feb 2023 20:10 Operator: DGS-RLD
Sample : 268887,1284324, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 20:31:29 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

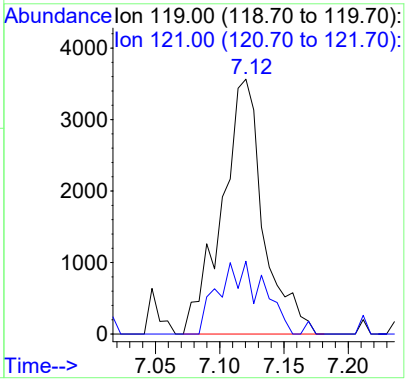


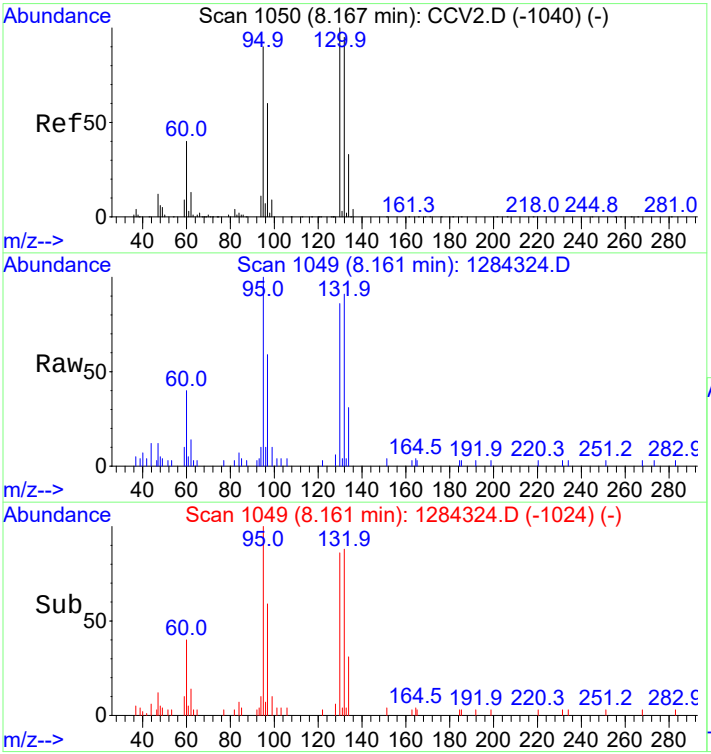


#43
Carbtetraclo
Concen: 1.35 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1284324.D
Acq: 1 Feb 2023 20:10

Tgt Ion:119 Resp: 8010

Ion	Ratio	Lower	Upper
119	100		
121	0.0	9.8	49.8#

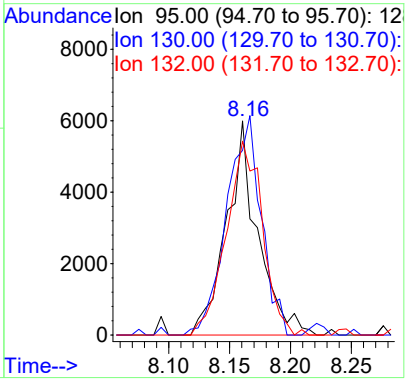




#49
trichloroete
Concen: 0.83 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.00 min
Lab File: 1284324.D
Acq: 1 Feb 2023 20:10

Tgt Ion: 95 Resp: 10714

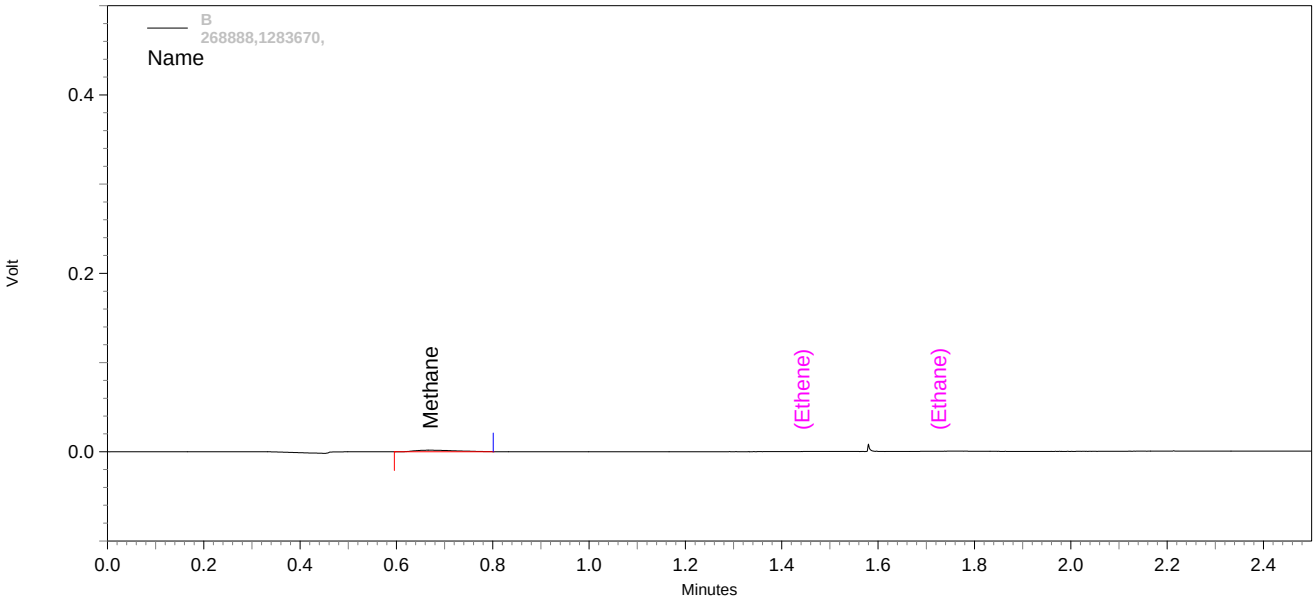
Ion	Ratio	Lower	Upper
95	100		
130	112.9	90.0	130.0
132	104.7	87.2	127.2



Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283670,
Acquired: Jan 31, 2023 08:29:04
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



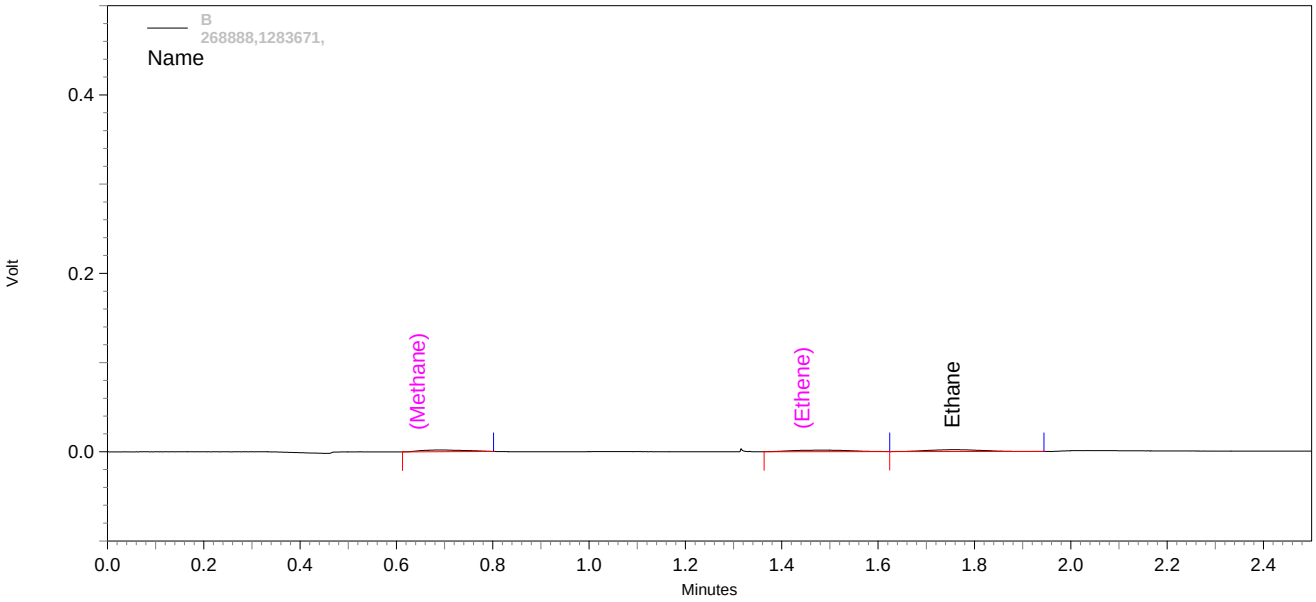
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.671**	**0.644**	**10671**	**1.455**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283671,
Acquired: Jan 31, 2023 08:46:25
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



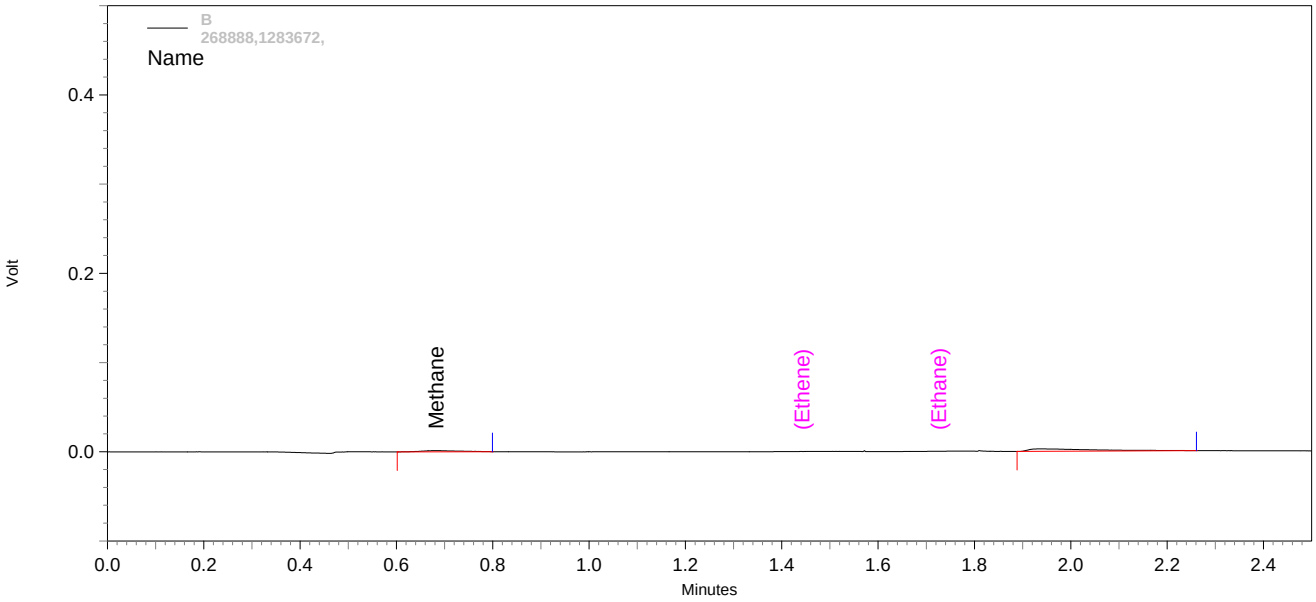
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.644**		**0.000 BDL**	**ppmV**
1		**0.689**	**0.000**	**12321**	**0.000**	
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
2		**1.486**	**0.000**	**13009**	**0.000**	
3	**Ethane**	**1.753**	**1.726**	**15507**	**3.391**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283672,
Acquired: Jan 31, 2023 08:56:54
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



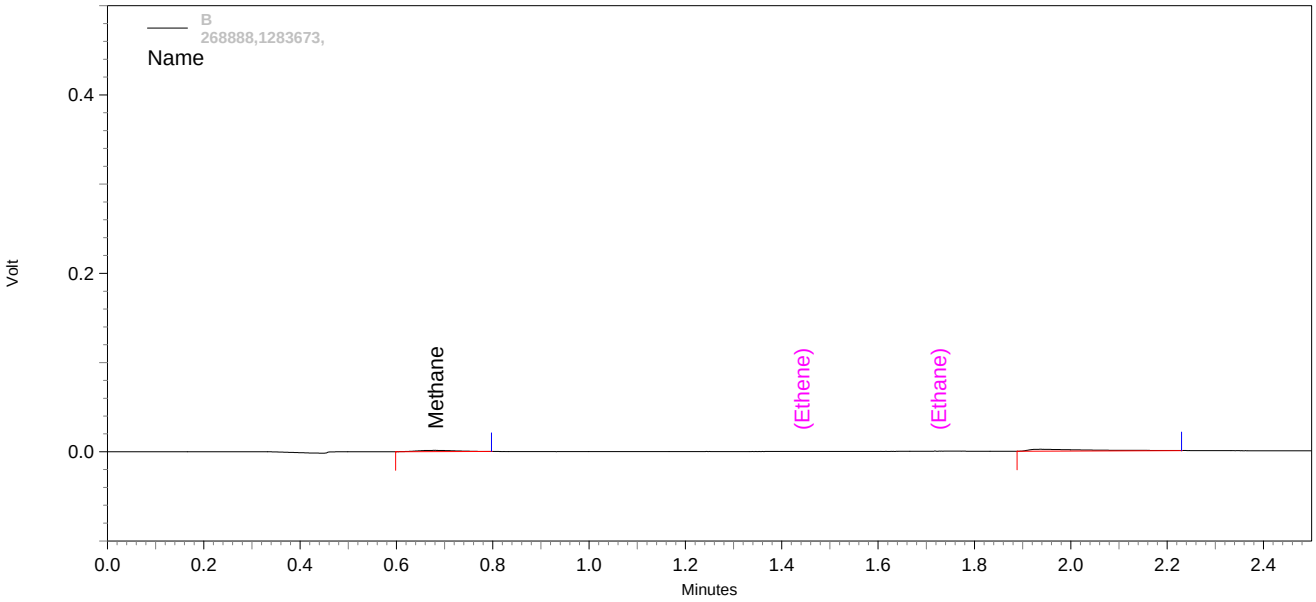
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.683**	**0.644**	**7179**	**0.933**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
2		**1.938**	**0.000**	**26197**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283673,
Acquired: Jan 31, 2023 09:02:14
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



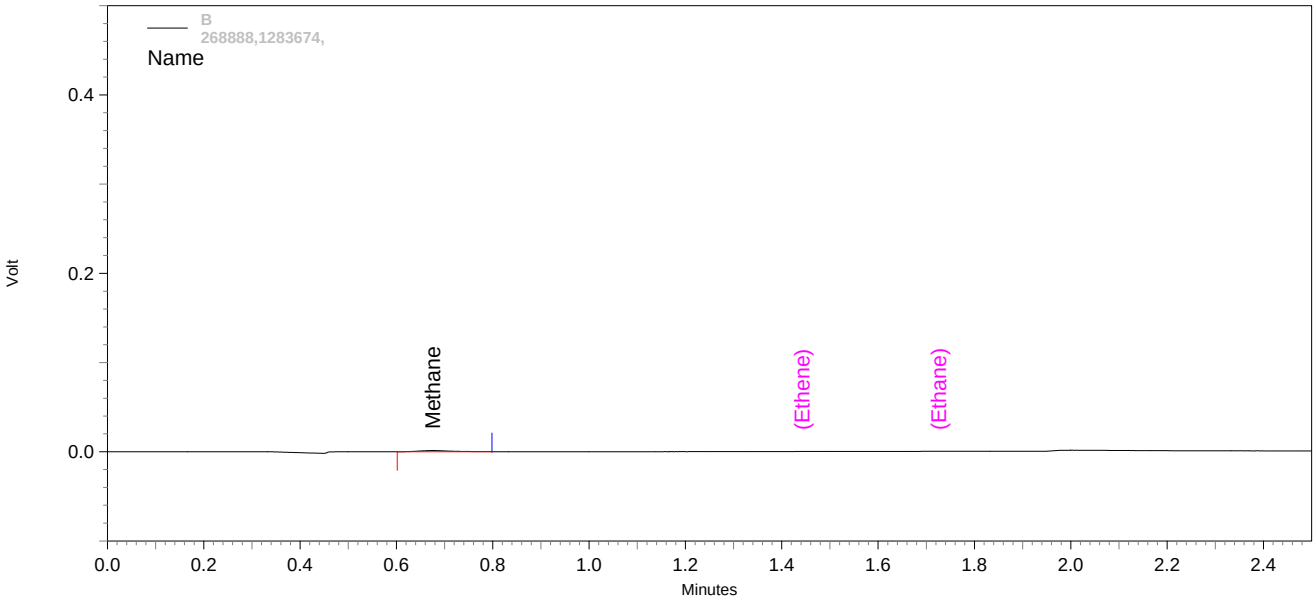
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.682**	**0.644**	**7443**	**0.972**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
2		**1.935**	**0.000**	**18414**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283674,
Acquired: Jan 31, 2023 09:51:40
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



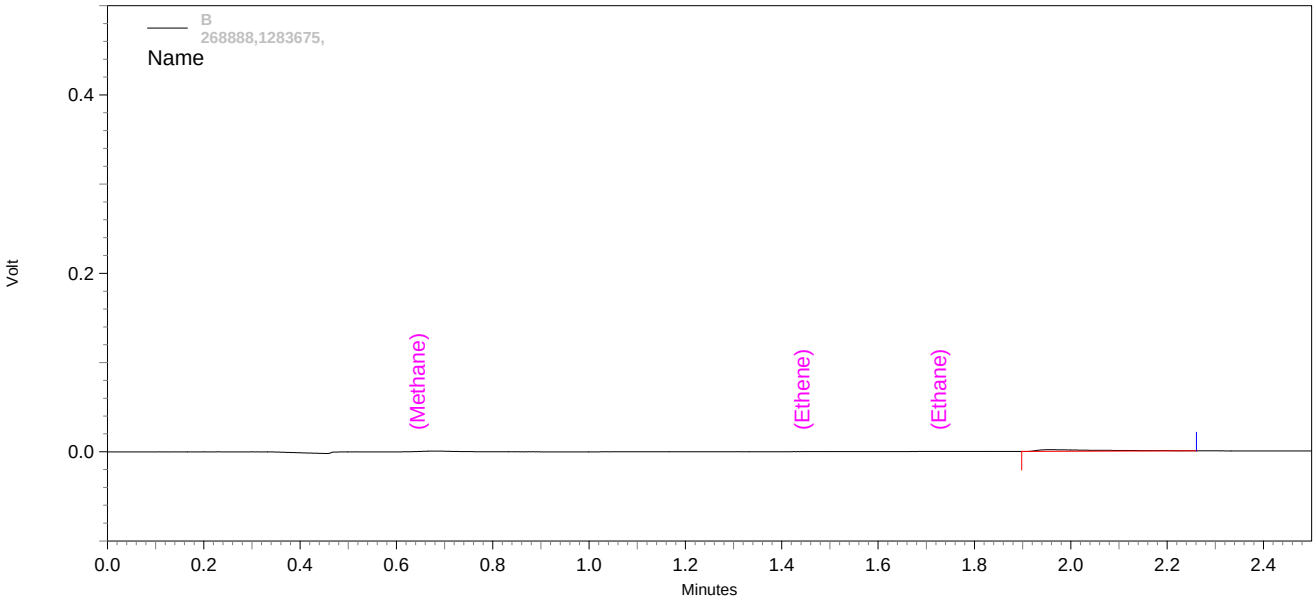
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.676**	**0.644**	**6134**	**0.776**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\013.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283675,
Acquired: Jan 31, 2023 10:01:07
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



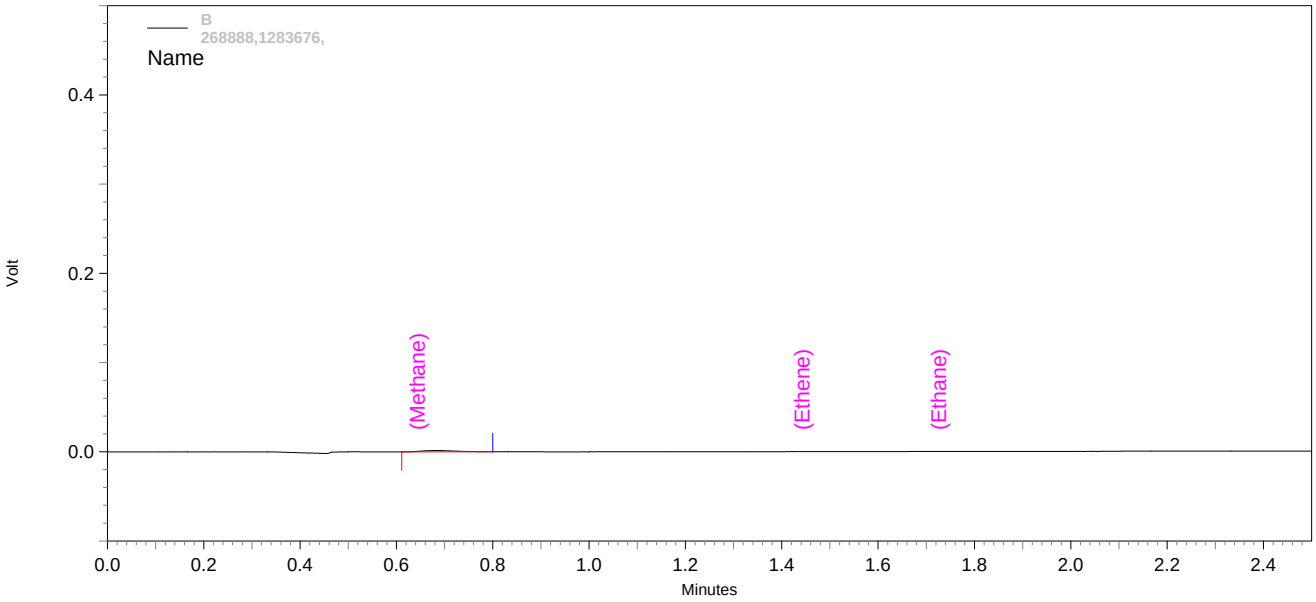
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.644**		**0.000 BDL**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
1		**1.962**	**0.000**	**16902**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\014.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,1283676,
Acquired: Jan 31, 2023 10:10:02
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



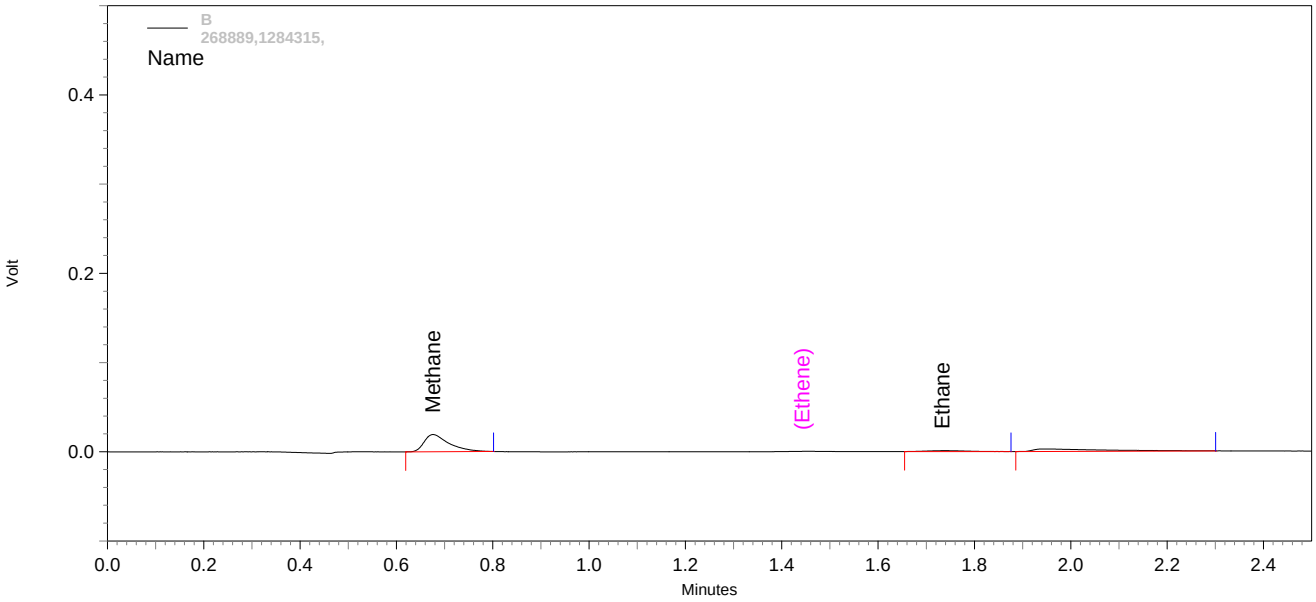
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.644**		**0.000 BDL**	**ppmV**
1		**0.685**	**0.000**	**7412**	**0.000**	
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284315,
Acquired: Feb 01, 2023 09:50:33
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



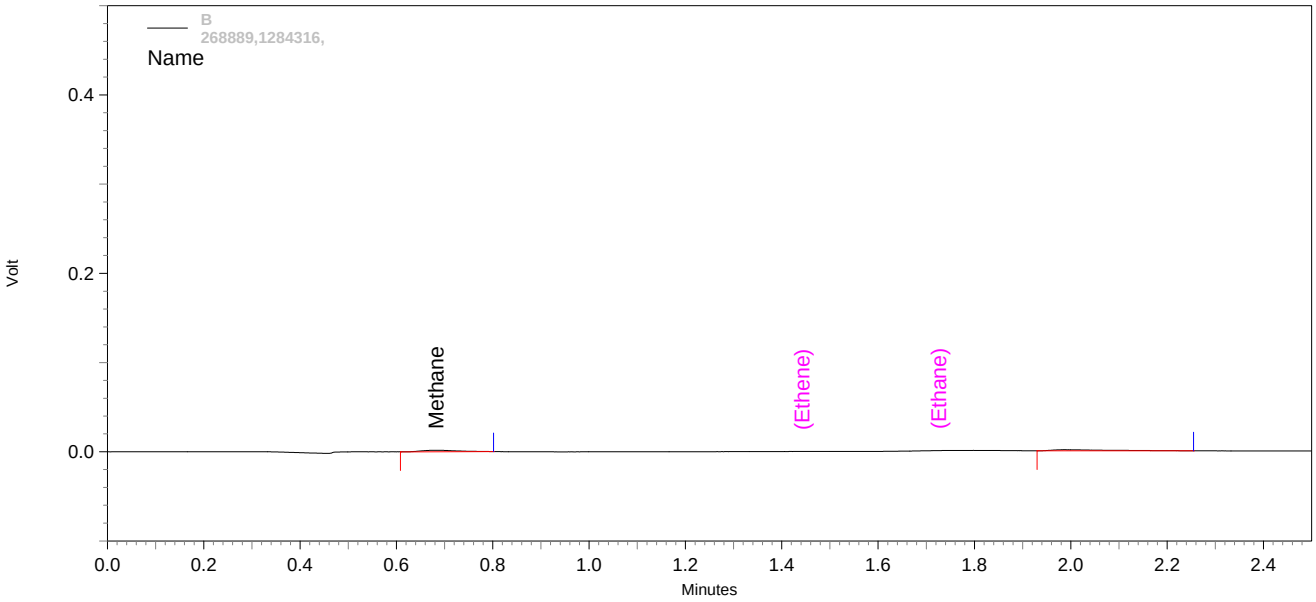
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.676**	**0.644**	**69113**	**10.200**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
2	**Ethane**	**1.733**	**1.726**	**5124**	**2.688**	**ppmV**
3		**1.947**	**0.000**	**27477**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284316,
Acquired: Feb 01, 2023 09:54:23
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



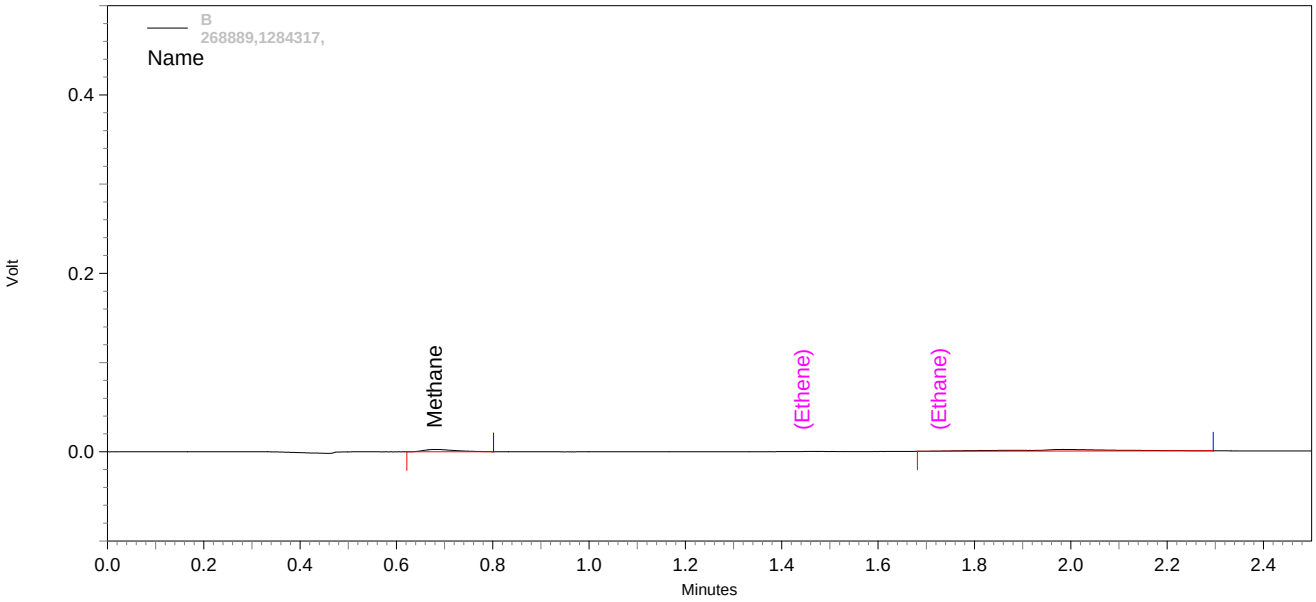
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.683**	**0.644**	**8694**	**1.159**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
2		**1.987**	**0.000**	**9849**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284317,
Acquired: Feb 01, 2023 09:58:04
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



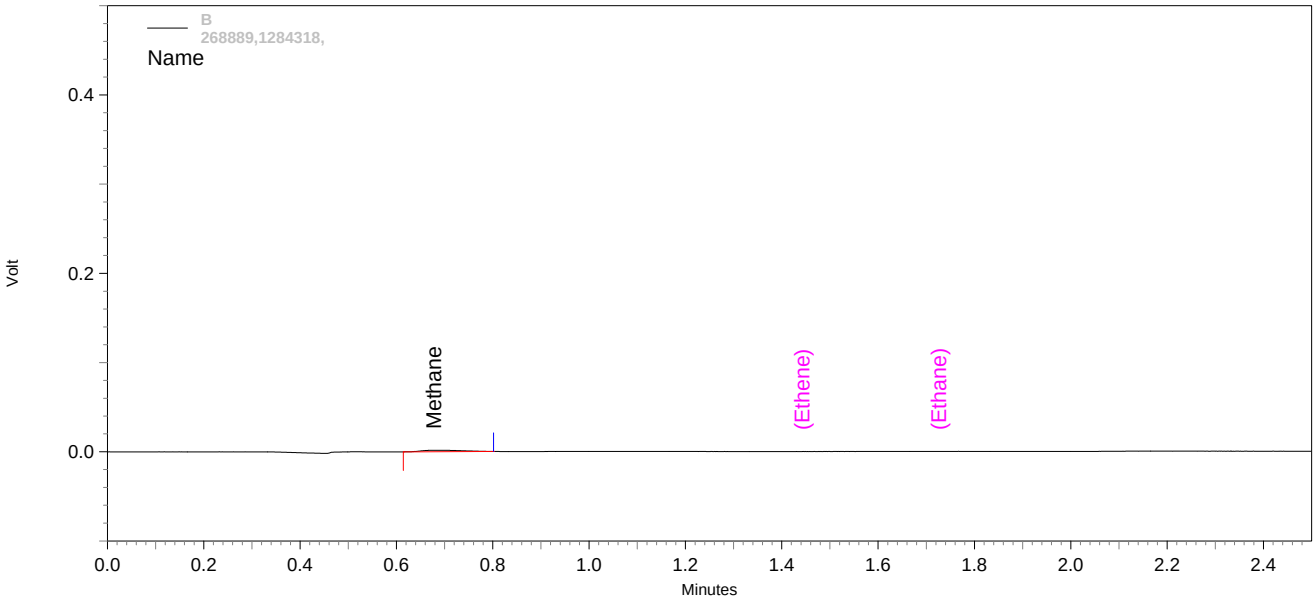
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.679**	**0.644**	**11998**	**1.654**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
2		**1.984**	**0.000**	**26613**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284318,
Acquired: Feb 01, 2023 10:03:14
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



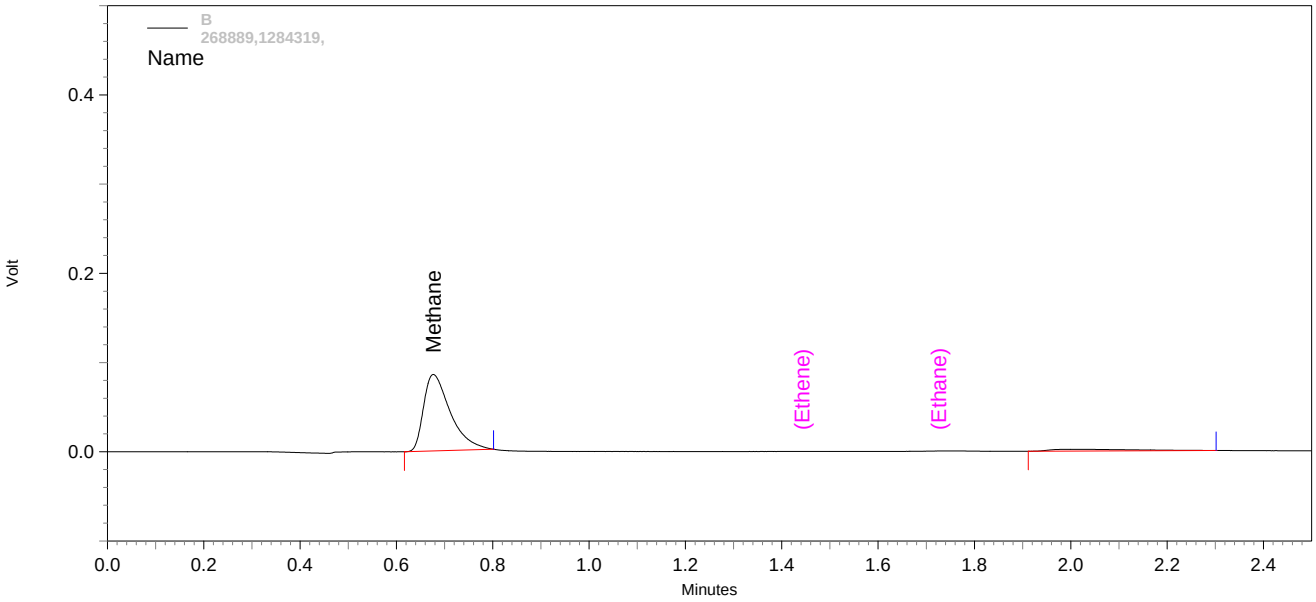
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.678**	**0.644**	**9345**	**1.257**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284319,
Acquired: Feb 01, 2023 10:06:47
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



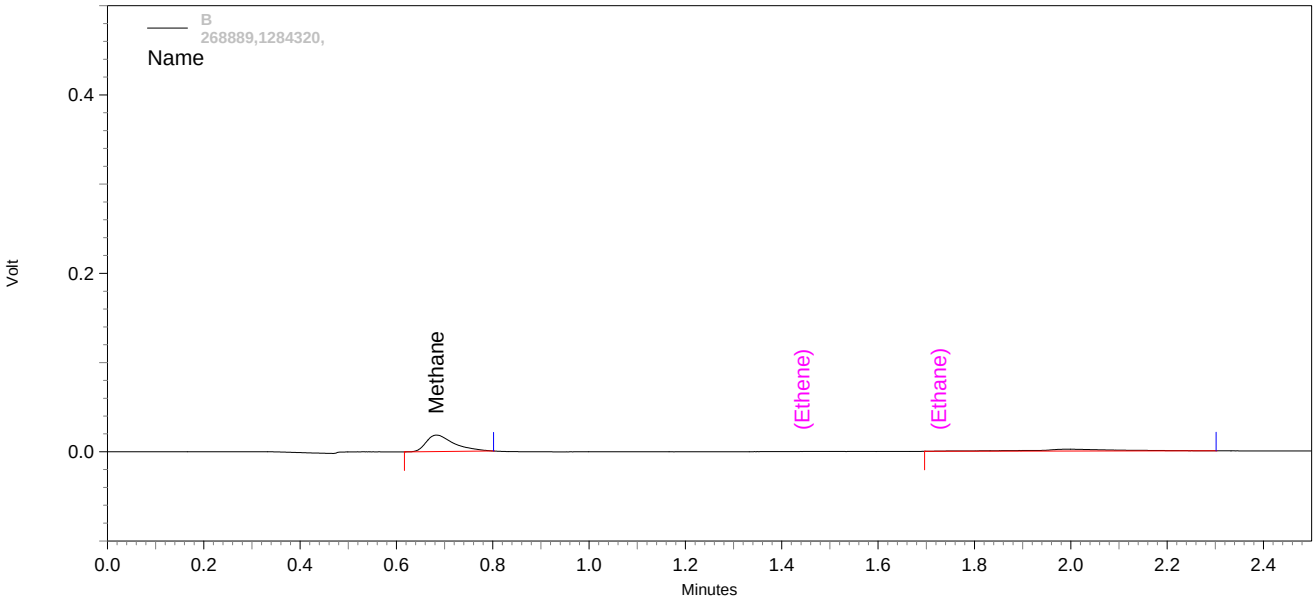
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.677**	**0.644**	**330582**	**49.325**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
2		**2.008**	**0.000**	**23233**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284320,
Acquired: Feb 01, 2023 10:10:24
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



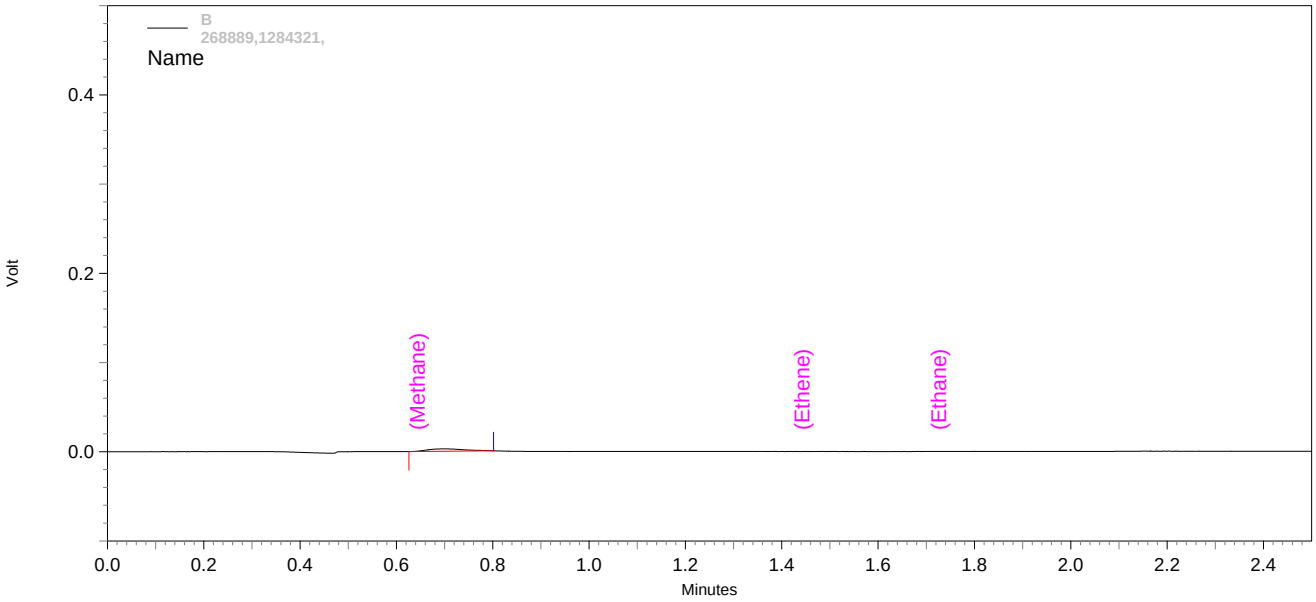
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.683**	**0.644**	**74157**	**10.955**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**
2		**1.993**	**0.000**	**26286**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284321,
Acquired: Feb 01, 2023 10:17:04
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



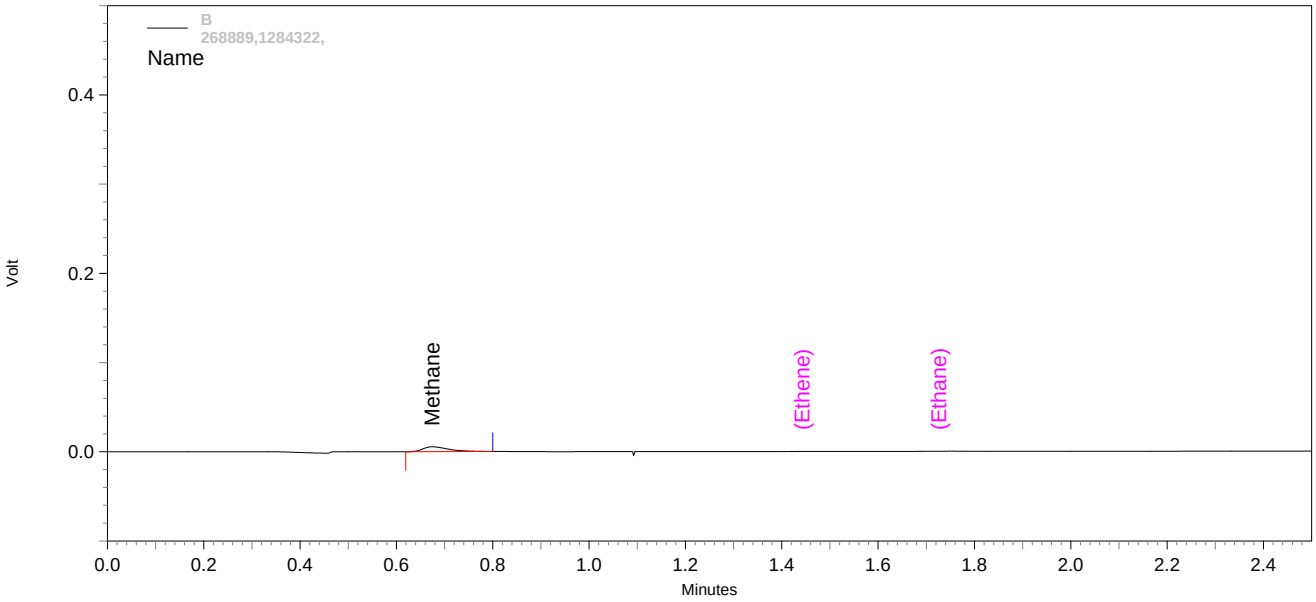
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.644**		**0.000 BDL**	**ppmV**
1		**0.700**	**0.000**	**14099**	**0.000**	
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284322,
Acquired: Feb 01, 2023 10:48:42
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



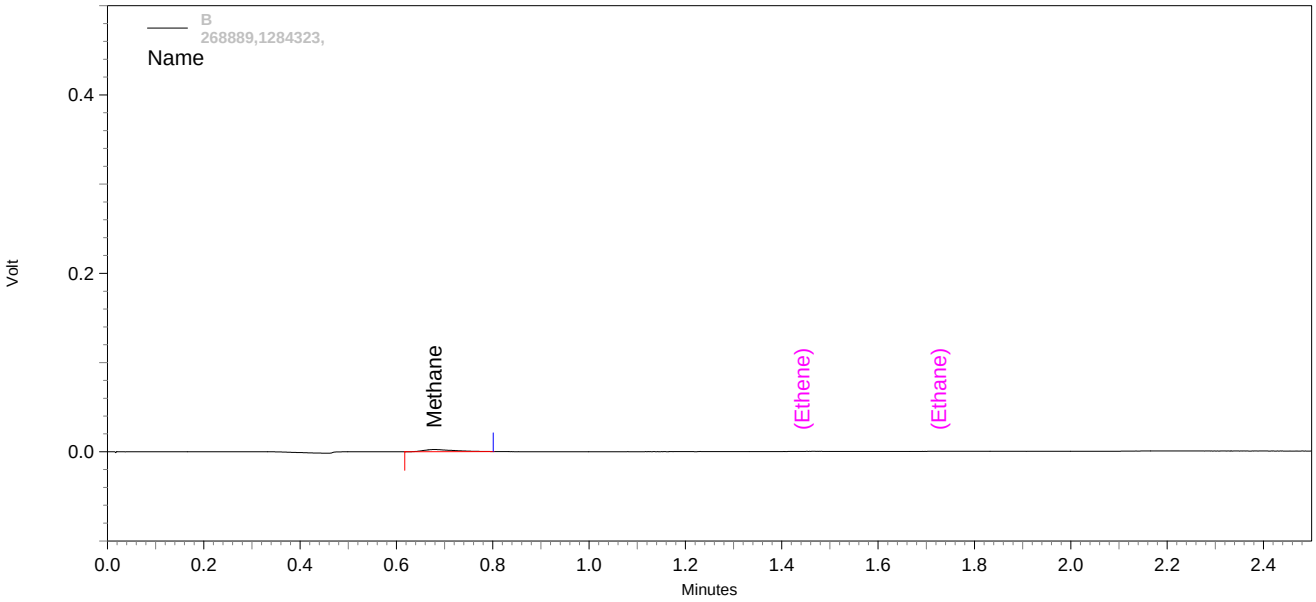
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.674**	**0.644**	**20187**	**2.879**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\013.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284323,
Acquired: Feb 01, 2023 11:19:50
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



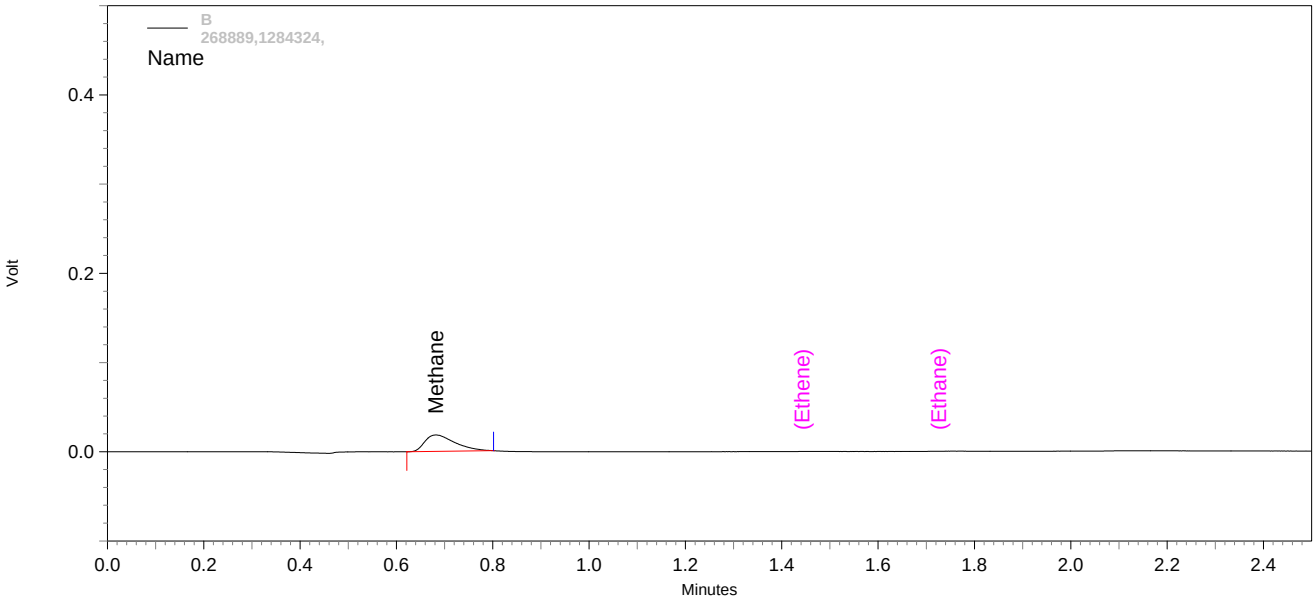
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.678**	**0.644**	**10325**	**1.403**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\014.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,1284324,
Acquired: Feb 01, 2023 11:23:40
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.682**	**0.644**	**80491**	**11.903**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS

Response Factor Report VMS3

Method Path : C:\INSTARCH\METHODS\
Method File : W010323.M
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response Via : Initial Calibration

RJ 01/05/2023

Calibration Files ug/L
1 0.5/5.0 =WCAL1.D 2 1.0/10.0 =WCAL2.D 3 2.0/20.0 =WCAL3.D
4 5.0/50.0 =WCAL4.D 5 10.0/100.0 =WCAL5.D 6 20.0/200.0 =WCAL6.D
7 30.0/300.0 =WCAL7.D 8 40.0/400.0 =WCAL8.D 9 80.0/800.0 =WCAL9.D

		Compound	1	2	3	4	5	6	7	Avg	%RSD
			8	9							
1)	I	FLUOROBENZENE**ISTD**	----------ISTD----------								
2)	PT	Dichlorodi	0.238	0.202	0.195	0.207	0.218	0.218	0.213	0.212	5.71
			0.210	0.209							
3)	PT	Chloromethan	0.308	0.266	0.264	0.276	0.248	0.251	0.233	0.256	10.31
			0.232	0.223							
4)	PT	VinylChlorid	0.320	0.279	0.274	0.285	0.288	0.283	0.271	0.281	6.29
			0.268	0.258							
5)	PT	Bromomethane		0.176	0.175	0.160	0.141	0.136	0.134	0.148	13.05
			0.133	0.129							
6)	PT	Chloroethane		0.204	0.191	0.195	0.188	0.186	0.178	0.187	5.47
			0.176	0.174							
7)	T	Dichloroflmetha	0.535	0.449	0.466	0.450	0.414	0.421	0.403	0.436	10.51
			0.399	0.385							
8)	PT	Trichlorofma	0.360	0.298	0.311	0.325	0.344	0.345	0.337	0.330	5.88
			0.334	0.315							
9)	T	Ethylether	0.225	0.208	0.212	0.201	0.183	0.187	0.189	0.197	7.62
			0.185	0.184							
10)	T	dichlorotfluoro	0.376	0.337	0.324	0.358	0.354	0.350	0.341	0.344	4.99
			0.334	0.323							
11)	T	propyleneoxide		0.031	0.032	0.035	0.035	0.034	0.038	0.035	7.97
			0.037	0.039							
12)	T	Acrolein		0.059	0.056	0.058	0.055	0.053	0.053	0.054	6.00
			0.050	0.051							
13)	PT	11dichlorthe	0.224	0.192	0.193	0.207	0.208	0.202	0.200	0.203	4.56
			0.202	0.203							
14)	PT	Trichlorotfluor	0.214	0.184	0.187	0.202	0.215	0.213	0.207	0.203	5.53
			0.206	0.199							
15)	PT	Acetone	0.109	0.100	0.090	0.085	0.082	0.078	0.074	-----	#
			0.072	0.069							
								Q	A= -0.000 R=1.000		
									B= 0.075		
									C= 0.021		
16)	T	Iodomethane		0.090	0.120	0.148	0.173	0.211	0.219	-----	
			0.230	0.230							
								Q	A= 0.000 R=0.999		
									B= 0.231		
									C= -0.033		
17)	PT	Carbon Dislf	0.573	0.514	0.472	0.503	0.497	0.506	0.478	0.494	7.63
			0.467	0.439							
18)	T	allylchloride	0.312	0.297	0.286	0.295	0.294	0.308	0.299	0.296	3.81
			0.295	0.274							
19)	PT	methylacetate		0.085	0.062	0.070	0.066	0.068	0.070	0.071#	10.19
			0.069	0.077							
20)	PT	Methylchlorid	0.353	0.287	0.268	0.242	0.219	0.217	0.214	-----	
			0.212	0.208							
								Q	A= -0.001 R=1.000		
									B= 0.213		
									C= 0.005		
21)	T	tbutylalcohol	0.019	0.017	0.015	0.017	0.019	0.019	0.022	0.019#	10.50
			0.020	0.020							
22)	T	Acrylonitrile		0.109	0.097	0.102	0.101	0.094	0.094	0.097	7.50
			0.089	0.087							

```
23) PT  t12dichlorte    0.240 0.231 0.217 0.226 0.219 0.230 0.220 0.225   3.40
                        0.219 0.219
24) PT  MtBE            0.628 0.583 0.578 0.591 0.567 0.582 0.583 0.581   3.80
                        0.569 0.546
25) T   Hexane          0.326 0.284 0.303 0.341 0.364 0.362 0.346 0.330   8.13
                        0.335 0.312
26) PT  11dichlorota    0.415 0.405 0.378 0.399 0.368 0.382 0.374 0.383   5.23
                        0.370 0.352
27) T   Vinylacetate    0.383 0.358 0.368 0.393 0.378 0.332 0.316 -----
                        0.259 0.171
                                                    Q  A= -0.005 R=0.997
                                                       B=  0.373
                                                       C=  0.050
28) T   chloroprene     0.375 0.324 0.325 0.341 0.342 0.347 0.334 0.336   5.71
                        0.330 0.306
29) T   Diisopether     0.771 0.705 0.690 0.677 0.628 0.693 0.685 0.680   6.78
                        0.662 0.610
30) T   ETBE            0.575 0.524 0.525 0.555 0.554 0.592 0.594 0.562   4.71
                        0.586 0.554
31) T   22dichloropr    0.196 0.207 0.180 0.211 0.226 0.255 0.268 -----
                        0.278 0.286
                                                    Q  A=  0.006 R=1.000
                                                       B=  0.266
                                                       C= -0.009
32) PT  c12dichlorte    0.282 0.268 0.248 0.252 0.235 0.254 0.241 0.250   6.44
                        0.241 0.233
33) PT  2Butanone             0.035 0.035 0.035 0.034 0.033 0.034 0.034#  3.56
                        0.032 0.033
34) T   propionitrile         0.049 0.043 0.043 0.042 0.039 0.040 0.041   9.10
                        0.037 0.038
35) T   Ethylacetate          0.009 0.010 0.011 0.011 0.011 0.012 0.011#  9.00
                        0.011 0.012
36) T   methacrylonitri       0.114 0.110 0.113 0.107 0.110 0.110 0.109   2.94
                        0.104 0.107
37) T   Bromochlorma    0.139 0.134 0.121 0.114 0.117 0.118 0.118 0.121   7.55
                        0.115 0.114
38) T   Tetrahydofur    0.103 0.091 0.084 0.084 0.085 0.076 0.077 0.082  13.18
                        0.070 0.067
39) PT  Chloroform      0.444 0.433 0.376 0.382 0.367 0.374 0.366 0.383   8.61
                        0.360 0.346
40) PT  111trichlota    0.285 0.247 0.253 0.279 0.288 0.312 0.318 0.291   9.61
                        0.319 0.318
41) S   SURRDibrflma    0.245 0.253 0.253 0.257 0.256 0.260 0.261 0.256   2.19
                        0.258 0.264
42) PT  Cyclohexane     0.392 0.319 0.345 0.383 0.419 0.416 0.410 0.386   8.69
                        0.404 0.388
43) PT  Carbtetraclo    0.206 0.194 0.169 0.200 0.223 0.251 0.266 -----
                        0.277 0.284
                                                    Q  A=  0.006 R=1.000
                                                       B=  0.264
                                                       C= -0.010
44) T   11dicloprope          0.109 0.101 0.116 0.115 0.120 0.117 0.115   5.73
                        0.118 0.121
45) S   SURR12DCAd4     0.073 0.073 0.071 0.072 0.072 0.073 0.074 0.073   1.83
                        0.070 0.074
46) PT  Benzene         1.045 0.951 0.917 0.950 0.873 0.861 0.827 0.880  11.45
                        0.792 0.702
47) PT  12dichlorota    0.396 0.324 0.329 0.330 0.307 0.314 0.303 0.321   9.98
                        0.296 0.287
48) T   TAME            0.473 0.448 0.478 0.507 0.501 0.545 0.544 0.506   6.84
                        0.540 0.516
49) PT  trichloroete    0.273 0.252 0.231 0.242 0.229 0.240 0.228 0.240   6.05
                        0.232 0.235
50) PT  methylcyclohexa 0.407 0.348 0.355 0.422 0.445 0.441 0.441 0.413   8.88
                        0.435 0.418
51) PT  12dicloropra    0.249 0.238 0.229 0.250 0.234 0.239 0.235 0.238   3.23
                        0.237 0.228
52) T   23Dicl1propene       0.317 0.339 0.329 0.336 0.366 0.350 0.340   4.36
                        0.349 0.334
53) T   Dibromometha        0.161 0.137 0.141 0.135 0.144 0.141 0.142   5.68
```

```
                    0.138 0.138
54) T   methylmethacryl       0.127 0.137 0.154 0.164 0.165 0.174 0.159  11.28
                    0.171 0.177
55) T   14dioxane             0.004 0.004 0.003 0.003 0.003 0.003 0.003#  7.01
                    0.003 0.003
56) PT  Bromodiclrma    0.313 0.233 0.228 0.249 0.241 0.269 0.273 0.261  10.07
                    0.273 0.269
57) T   2Nitropropane   0.041 0.038 0.037 0.039 0.043 0.048 0.056 -----
                    0.055 0.058
                                                      Q  A=  0.000 R=0.999
                                                         B=  0.052
                                                         C= -0.021
58) T   2CLEVE                0.071 0.067 0.080 0.086 0.087 0.091 0.082  10.82
                    0.088 0.088
59) PT  c13dicloproe    0.304 0.284 0.257 0.290 0.313 0.339 0.337 0.310   9.19
                    0.336 0.329
60) PT  4Meth2Pentan    0.242 0.233 0.220 0.230 0.219 0.195 0.186 0.211  12.84
                    0.163
61) S   SURRd8Tolule    0.995 0.983 0.991 0.995 0.990 1.005 0.995 0.996   0.92
                    0.996 1.015
62) PT  Toluene         0.698 0.613 0.604 0.608 0.587 0.591 0.564 0.593   8.49
                    0.551 0.517
63) PT  t13Dicloprop    0.223 0.185 0.192 0.225 0.245 0.284 0.293 -----
                    0.300 0.295
                                                      Q  A= -0.001 R=0.999
                                                         B=  0.303
                                                         C= -0.013
64) T   ethylmethacryla       0.207 0.219 0.261 0.277 0.298 0.301 0.266  13.43
                    0.295 0.273
65) PT  112Triclotha          0.174 0.174 0.176 0.169 0.172 0.169 0.170   2.51
                    0.165 0.164
66) PT  Tetrachlorte    0.312 0.269 0.254 0.264 0.257 0.273 0.263 0.269   6.48
                    0.264 0.261
67) T   13Diclorpropa   0.418 0.384 0.386 0.374 0.364 0.364 0.358 0.369   6.83
                    0.347 0.330

68) I   d5-CHLOROBENZENE**IST ----------------ISTD--------------------
69) PT  2Hexanone             0.208 0.213 0.213 0.215 0.190 0.184 0.191  14.30
                    0.165 0.139
70) PT  Clorodibrmta    0.192 0.198 0.206 0.222 0.235 0.265 0.284 -----
                    0.281 0.293
                                                      Q  A=  0.005 R=1.000
                                                         B=  0.275
                                                         C= -0.009
71) PT  12Dibrometha    0.208 0.190 0.204 0.230 0.248 0.271 0.276 -----
                    0.267 0.264
                                                      Q  A= -0.003 R=1.000
                                                         B=  0.280
                                                         C= -0.007
72) PT  Chlorobenzen    0.978 0.903 0.855 0.864 0.805 0.802 0.766 0.823  10.56
                    0.749 0.689
73) T   1Clhexane       0.547 0.380 0.378 0.399 0.411 0.409 0.407 0.415  12.32
                    0.406 0.395
74) T   1112Tetclota         0.182 0.177 0.208 0.218 0.254 0.264 -----
                    0.274 0.273
                                                      Q  A=  0.001 R=1.000
                                                         B=  0.273
                                                         C= -0.014
75) PT  Ethylbenzene    1.502 1.372 1.383 1.400 1.344 1.315 1.247 1.310  10.46
                    1.195 1.031
76) PT  m p-Xylene      0.599 0.560 0.552 0.563 0.540 0.531 0.513 0.534   7.99
                    0.503 0.449
77) PT  o-Xylene        0.576 0.540 0.544 0.541 0.530 0.528 0.518 0.531   4.60
                    0.518 0.485
78) PT  Styrene         0.896 0.838 0.838 0.885 0.844 0.849 0.829 0.837   5.34
                    0.808 0.742
79) PT  Bromoform             0.110 0.123 0.131 0.142 0.167 0.185 -----
                    0.186 0.200
                                                      Q  A=  0.007 R=1.000
                                                         B=  0.176
```

```
                                                          C= -0.009
 80) PT  Isopropylben    1.372 1.293 1.298 1.353 1.328 1.283 1.237 1.264   8.31
                         1.186 1.029
 81) T   cyclohexanone         0.022 0.023 0.025 0.026 0.026 0.025 0.025#  6.85
                         0.026 0.027

 82) I   d4-1,4-DICHLOROBENZEN ----------------ISTD--------------------
 83) S   SURR4BrFBenz    0.970 0.963 0.949 0.968 0.949 0.924 0.943 0.945   2.16
                         0.927 0.913
 84) T   Bromobenzene    0.683 0.757 0.661 0.676 0.650 0.655 0.633 0.660   6.92
                         0.635 0.589
 85) PT  1122Tetrclta    0.806 0.720 0.757 0.697 0.691 0.667 0.673 0.691   9.77
                         0.633 0.573
 86) T   123Triclproa          0.838 0.822 0.852 0.856 0.835 0.879 0.846   2.09
                         0.853 0.833
 87) T   14dichloro2bute       0.201 0.187 0.197 0.196 0.197 0.215 0.202   4.71
                         0.210 0.212
 88) T   n-Propylbenz    3.397 2.907 2.900 3.008 2.947 2.758 2.618 2.785  13.63
                         2.489 2.038
 89) T   2chlorotolue    2.047 1.792 1.755 1.810 1.691 1.680 1.603 1.697  11.44
                         1.541 1.350
 90) T   4chlorotolue    2.295 2.138 2.120 2.107 1.991 1.938 1.863 1.977  11.21
                         1.792 1.553
 91) T   135Trimebenz    2.258 2.081 2.046 2.202 2.124 2.051 1.971 2.030   9.05
                         1.908 1.632
 92) T   tbutylbenzen    2.383 1.876 1.772 1.925 1.840 1.798 1.745 1.838  13.09
                         1.728 1.476
 93) T   124Trimetben    2.253 1.981 1.996 2.124 2.035 1.984 1.895 1.967   9.43
                         1.849 1.588
 94) T   sbutylbenzen    2.756 2.422 2.312 2.570 2.525 2.432 2.340 2.390  10.01
                         2.261 1.895
 95) PT  13Diclorbenz    1.292 1.358 1.259 1.216 1.167 1.176 1.127 1.193   8.53
                         1.120 1.019
 96) T   pIsopropylto    2.266 2.071 2.094 2.234 2.214 2.167 2.076 2.095   7.84
                         2.016 1.720
 97) PT  14dichlorobe    1.477 1.349 1.312 1.253 1.186 1.198 1.152 1.233  10.67
                         1.135 1.036
 98) PT  12dichlorobe    1.405 1.258 1.248 1.223 1.136 1.118 1.091 1.167  11.20
                         1.068 0.960
 99) T   nButylbenzen    1.913 1.785 1.738 1.835 1.830 1.790 1.720 1.754   6.99
                         1.691 1.480
100) PT  12dibromo3cl          0.087 0.082 0.089 0.107 0.129 0.141 -----
                         0.142 0.156
                                                     Q  A=  0.006 R=1.000
                                                        B=  0.134
                                                        C= -0.008
101) T   135Trichloroben 0.832 0.877 0.851 0.838 0.796 0.804 0.799 0.811   5.62
                         0.781 0.720
102) PT  124Trichlobe    0.789 0.722 0.678 0.725 0.704 0.710 0.712 0.710   5.26
                         0.700 0.652
103) T   Hexachlorobu    0.330 0.237 0.262 0.298 0.299 0.288 0.295 0.288   8.95
                         0.293 0.294
104) T   Naphthalene     1.712 1.529 1.401 1.589 1.619 1.611 1.652 1.562   6.61
                         1.527 1.420
105) T   123Trichlben    0.682 0.635 0.667 0.664 0.637 0.642 0.655 0.647   3.60
                         0.634 0.603
 ------------------------------------------------------------------------------
                                              Total Average %RSD   7.59
 ------------------------------------------------------------------------------
 L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
 (#) = Out of Range

           W010323.M        Wed Jan 04 08:15:59 2023
```

Data File : C:\INSTARCH\DATA\JAN0323\BFB1.D Vial: 1
Acq On : 3 Jan 2023 10:41 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	12195	PASS
75	95	30	60	46.9	29264	PASS
95	95	100	100	100.0	62421	PASS
96	95	5	9	5.2	3216	PASS
173	174	0.00	2	1.3	738	PASS
174	95	50	100	92.7	57848	PASS
175	174	5	9	6.8	3940	PASS
176	174	95	101	95.7	55356	PASS
177	176	5	9	8.1	4479	PASS

W010323.M Wed Jan 04 08:14:54 2023

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL1.D Vial: 4
Acq On : 3 Jan 2023 11:55 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:05:53 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1283251	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	994128	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	486907	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	314605	19.736 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %		
45) SURR12DCAd4	7.27	102	93762	21.051 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %		
61) SURRd8Tolule	9.71	98	1276857	20.118 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	472156	18.724 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 94 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	7642	0.6293 ug/L #	41
3) Chloromethan	2.10	50	9880	0.5890 ug/L	90
4) VinylChlorid	2.24	62	10281	0.6118 ug/L	77
5) Bromomethane	2.70	94	5144	0.5100 ug/L	88
6) Chloroethane	2.87	64	8547	0.7480 ug/L	95
7) Dichloroflmethane	3.19	67	17152	0.5930 ug/L #	89
8) Trichlorofma	3.26	101	11539	0.5337 ug/L #	92
9) Ethylether	3.71	59	7204	0.5248 ug/L	92
10) dichlorotfluoroethan	3.72	67	12054	0.5902 ug/L	98
11) propyleneoxide	3.76	58	11241	3.3833 ug/L	89
12) Acrolein	3.84	56	10695	2.7249 ug/L	96
13) 11dichlorthe	3.99	96	7176	0.5421 ug/L	92
14) Trichlorotfluoroeth	4.02	101	13749	1.4777 ug/L	97
15) Acetone	4.06	43	34981m	2.9416 ug/L	96
16) Iodomethane	4.16	142	7556	0.4684 ug/L #	88
17) Carbon Dislf	4.26	76	36792	1.1273 ug/L	98
18) allylchloride	4.48	41	20044	0.9153 ug/L	90
19) methylacetate	4.54	74	2575	0.5173 ug/L #	36
20) Methylchlorid	4.63	84	11330m	0.6920 ug/L	89
21) tbutylalcohol	4.83	59	31249	19.5428 ug/L	98
22) Acrylonitrile	4.94	53	18359	2.6505 ug/L	96
23) t12dichlorte	5.01	96	7698	0.5198 ug/L	93
24) MtBE	5.03	73	20160	0.4962 ug/L	92
25) Hexane	5.40	57	20903	1.4217 ug/L	93
26) 11dichlorota	5.53	63	13325	0.5005 ug/L #	87
27) Vinylacetate	5.62	43	122882	Below Cal	96
28) chloroprene	5.67	53	24093	1.0535 ug/L	94
29) Diisopether	5.69	45	24732	0.5149 ug/L	96
30) ETBE	6.13	59	18435	0.4333 ug/L	93
31) 22dichloropr	6.28	77	6294m	0.3068 ug/L #	77
32) c12dichlorte	6.27	96	9058	0.5364 ug/L	97
33) 2Butanone	6.29	72	12732	5.3304 ug/L	96
34) propionitrile	6.32	54	16107	5.5166 ug/L	90
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	6.53	67	7253	0.9406 ug/L #	87
37) Bromochlorma	6.55	128	4461	0.5844 ug/L	96
38) Tetrahydofur	6.65	42	33024	5.8400 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL1.D Vial: 4
Acq On : 3 Jan 2023 11:55 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:05:53 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.66	83	14230	0.5390 ug/L		96
40)	111trichlota	6.91	97	9148	0.4222 ug/L		94
42)	Cyclohexane	6.99	56	12569	0.7492 ug/L		98
43)	Carbtetraclo	7.11	119	6600	0.3729 ug/L	#	44
44)	11dicloprope	7.11	110	3716	0.4879 ug/L		94
46)	Benzene	7.36	78	33539	0.5520 ug/L		94
47)	12dichlorota	7.35	62	12718	0.5840 ug/L	#	90
48)	TAME	7.53	73	15172	0.4018 ug/L	#	74
49)	trichloroete	8.16	95	8771	0.5504 ug/L		91
50)	methylcyclohexane	8.44	83	13060	0.8002 ug/L		94
51)	12dicloropra	8.42	63	8002	0.4790 ug/L	#	97
52)	23Dicl1propene	8.48	75	11275	0.4669 ug/L		93
53)	Dibromometha	8.57	93	5966	0.6377 ug/L		85
54)	methylmethacrylate	8.59	69	3917	0.3162 ug/L	#	43
55)	14dioxane	8.60	88	6128	27.0017 ug/L	#	80
56)	Bromodiclrma	8.76	83	10049	0.5313 ug/L	#	86
57)	2Nitropropane	9.02	43	13090	10.2658 ug/L		96
58)	2CLEVE	9.15	63	11981	1.8703 ug/L		97
59)	c13dicloproe	9.33	75	9747	0.4348 ug/L	#	52
60)	4Meth2Pentan	9.54	43	77746	1.3991 ug/L		98
62)	Toluene	9.79	92	22405	0.5623 ug/L		96
63)	t13Dicloprop	10.05	75	7166	0.3724 ug/L	#	75
64)	ethylmethacrylate	10.20	69	13662	0.6507 ug/L	#	92
65)	112Triclotha	10.29	83	6020	0.5045 ug/L		89
66)	Tetrachlorte	10.52	166	10019	0.6238 ug/L		97
67)	13Diclorpropa	10.51	76	13397	0.5333 ug/L		100
69)	2Hexanone	10.62	43	57524	1.4508 ug/L		92
70)	Clorodibrmta	10.81	129	4763	0.3526 ug/L	#	69
71)	12Dibrometha	10.96	107	5181	0.3657 ug/L		92
72)	Chlorobenzen	11.65	112	24296	0.5868 ug/L	#	69
73)	1Clhexane	11.63	91	13589	0.6438 ug/L	#	53
74)	1112Tetclota	11.76	131	4279	0.3174 ug/L	#	66
75)	Ethylbenzene	11.81	91	37324	0.5381 ug/L		100
76)	m p-Xylene	11.98	106	29756	1.1095 ug/L		95
77)	o-Xylene	12.52	106	14311	0.5338 ug/L		93
78)	Styrene	12.53	104	22259	0.5212 ug/L		99
79)	Bromoform	12.76	173	2982	0.3384 ug/L	#	25
80)	Isopropylben	13.05	105	34106	0.5322 ug/L		96
81)	cyclohexanone	13.14	55	12717	8.7170 ug/L	#	92
84)	Bromobenzene	13.46	156	8314	0.4965 ug/L		92
85)	1122Tetrclta	13.44	83	9807	0.5149 ug/L		99
86)	123Triclproa	13.50	75	11349	0.4687 ug/L		97
87)	14dichloro2butene	13.51	53	2861	0.4739 ug/L	#	30
88)	n-Propylbenz	13.64	91	41351	0.5723 ug/L		96
89)	2chlorotolue	13.75	91	24916	0.5438 ug/L		100
90)	4chlorotolue	13.89	91	27935	0.5354 ug/L		95
91)	135Trimebenz	13.90	105	27487	0.5355 ug/L		98
92)	tbutylbenzen	14.36	119	29006	0.6579 ug/L		87
93)	124Trimetben	14.43	105	27426	0.5464 ug/L		98
94)	sbutylbenzen	14.68	105	33551	0.5581 ug/L		99
95)	13Diclorbenz	14.82	146	15729	0.5358 ug/L		95
96)	pIsopropylto	14.90	119	27580	0.5371 ug/L	#	98
97)	14dichlorobe	14.94	146	17983	0.5782 ug/L	#	64
98)	12dichlorobe	15.49	146	17106	0.6070 ug/L	#	53
99)	nButylbenzen	15.49	91	23291	0.5036 ug/L		98
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	16.91	180	10126	0.5227 ug/L		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JAN0323\WCAL1.D Vial: 4
Acq On : 3 Jan 2023 11:55 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:05:53 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.71	180	9610	0.5476 ug/L	95
103) Hexachlorobu	17.97	225	4016	0.5833 ug/L #	52
104) Naphthalene	18.02	128	20837	0.5197 ug/L #	73
105) 123Trichlben	18.34	180	8296	0.5190 ug/L	95

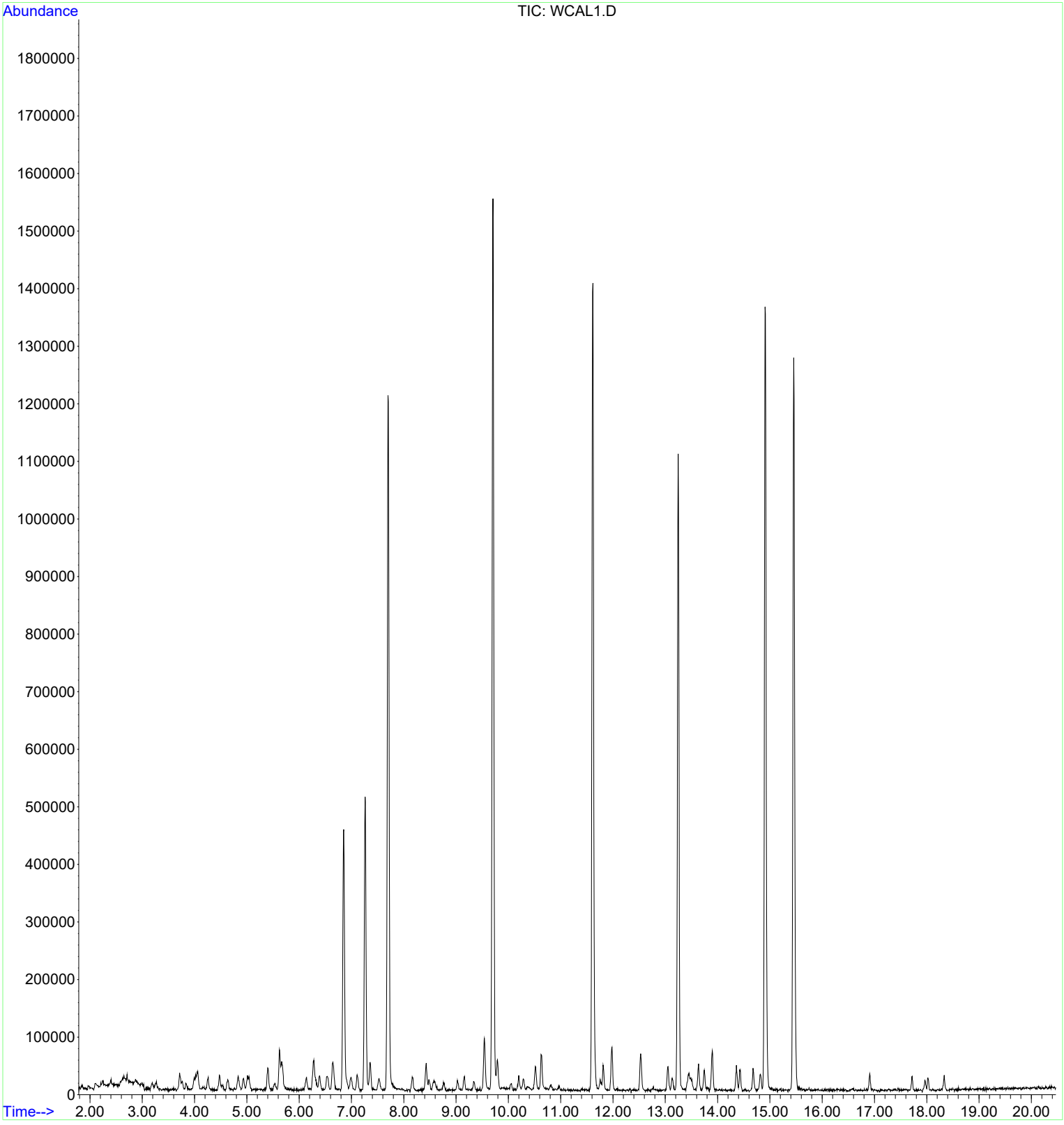
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL1.D Vial: 4
Acq On : 3 Jan 2023 11:55 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

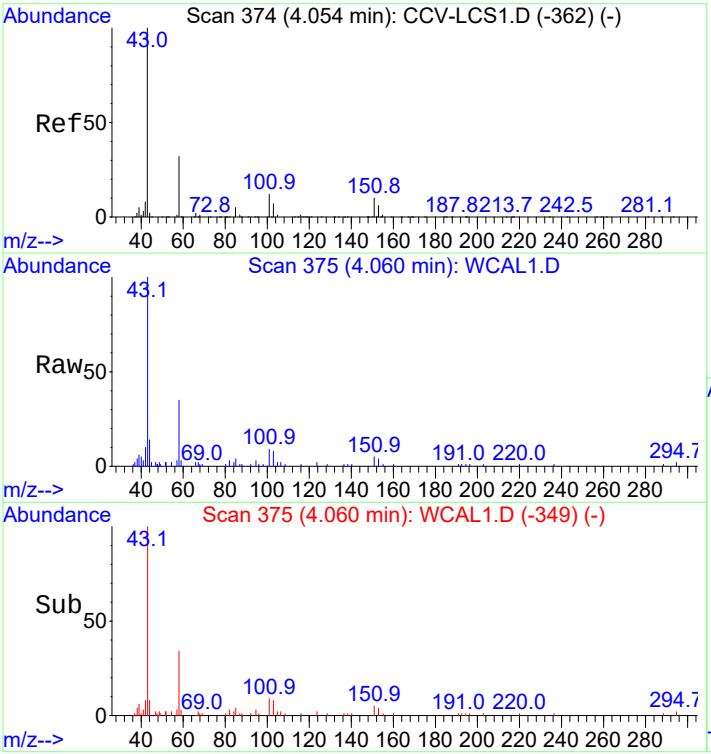
Quant Time: Jan 04 07:05:53 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



After Manual Integration

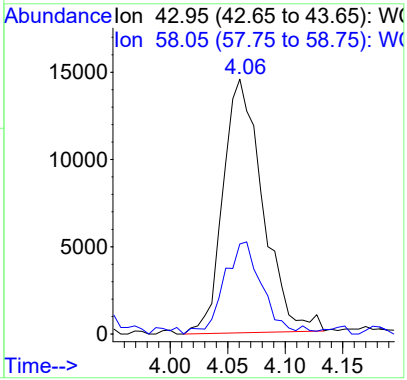
DGS 01/04/2022

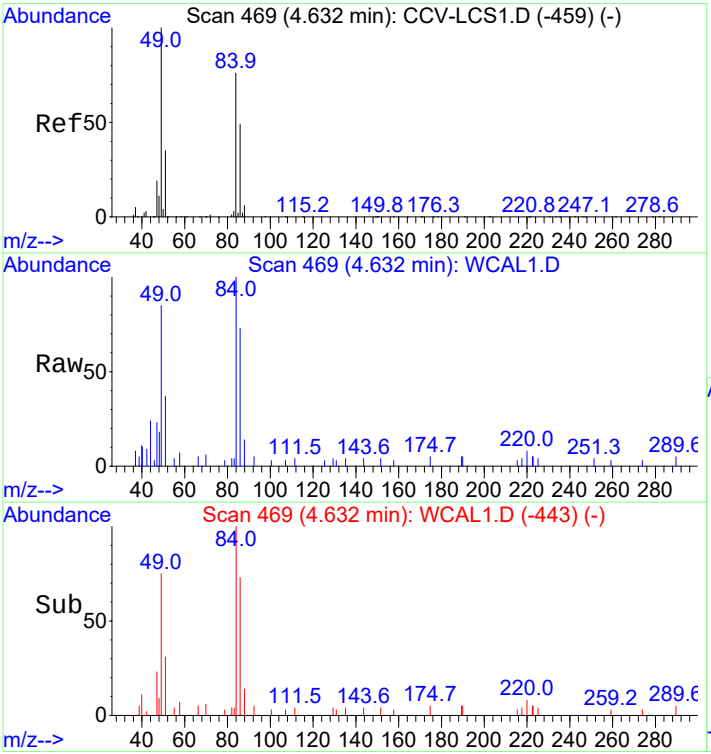


#15
Acetone
Concen: 2.94 ug/L m
RT: 4.06 min Scan# 375
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 3 Jan 2023 11:55

Tgt Ion: 43 Resp: 34981

Ion	Ratio	Lower	Upper
43	100		
58	35.1	11.3	51.3

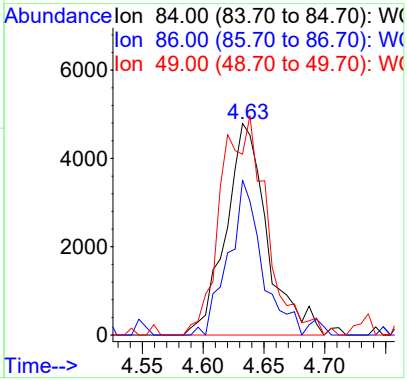




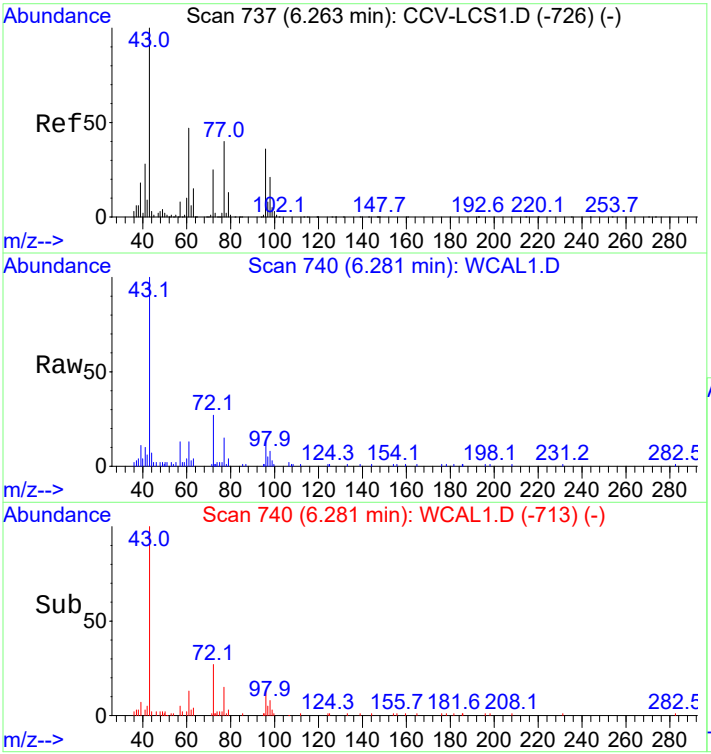
#20
Methylchlorid
Concen: 0.69 ug/L m
RT: 4.63 min Scan# 469
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 3 Jan 2023 11:55

Tgt Ion: 84 Resp: 11330

Ion	Ratio	Lower	Upper
84	100		
86	58.9	44.5	84.5
49	115.2	109.4	149.4



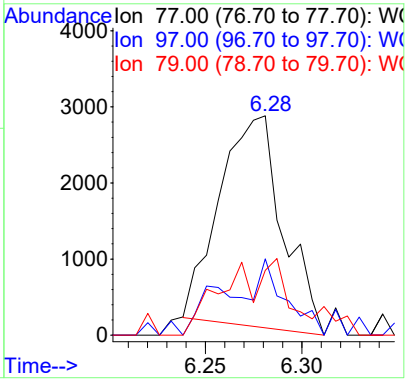
RJ 01/05/2023



#31
22dichloropr
Concen: 0.31 ug/L m
RT: 6.28 min Scan# 740
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 3 Jan 2023 11:55

Tgt Ion: 77 Resp: 6294

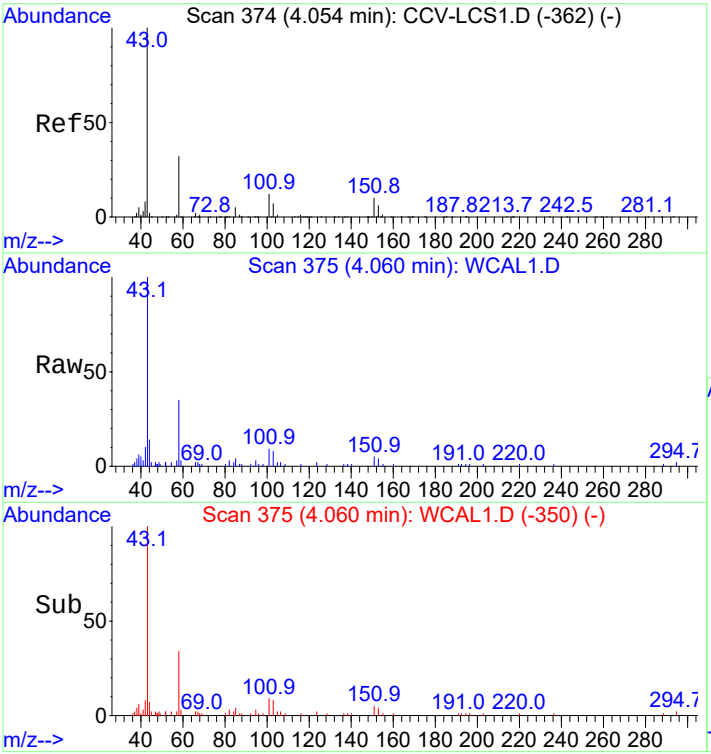
Ion	Ratio	Lower	Upper
77	100		
97	0.0	2.6	42.6#
79	40.3	12.6	52.6



After Manual Integration

DGS 01/04/2022

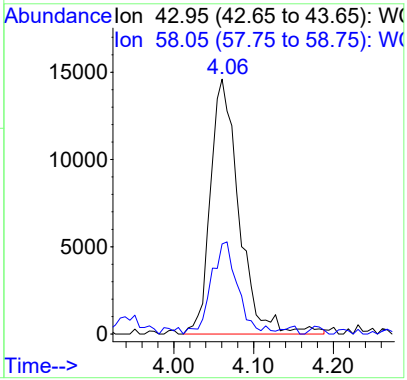
RJ 01/05/2023



#15
Acetone
Concen: 2.01 ug/L
RT: 4.06 min Scan# 375
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 3 Jan 2023 11:55

Tgt Ion: 43 Resp: 36569

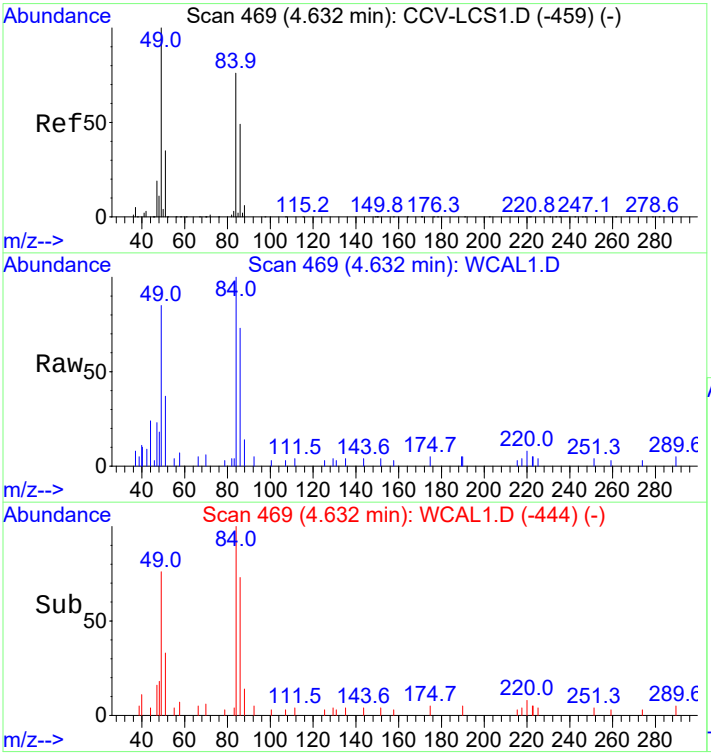
Ion	Ratio	Lower	Upper
43	100		
58	33.6	13.0	53.0



Before Manual Integration

DGS 01/04/2022

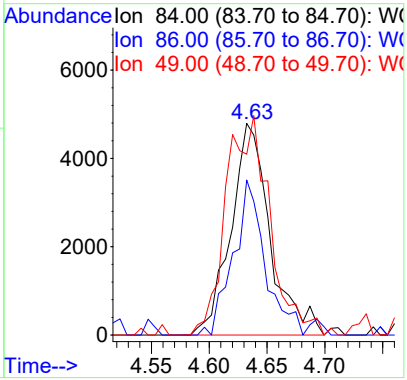
REASON # 2



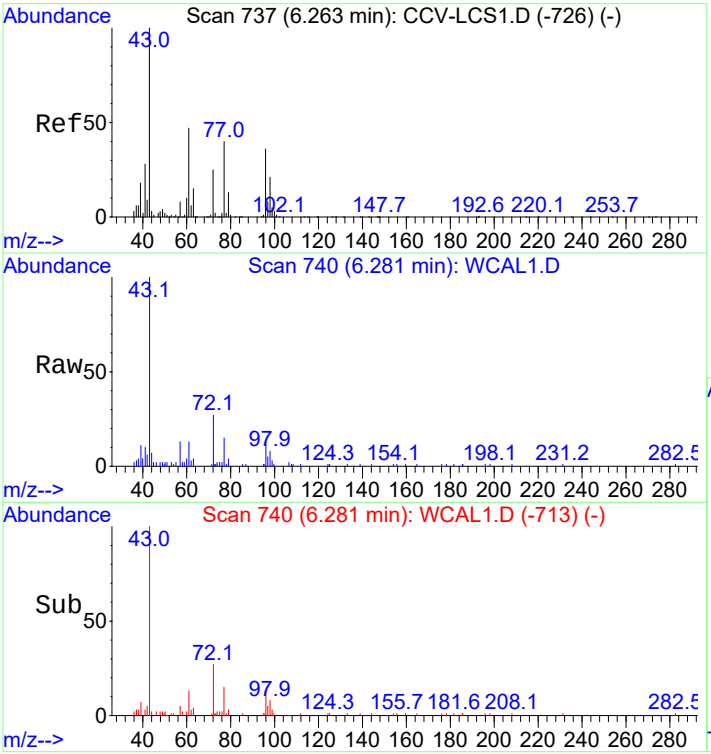
#20
Methylchlorid
Concen: 0.38 ug/L
RT: 4.63 min Scan# 469
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 3 Jan 2023 11:55

Tgt Ion: 84 Resp: 11330

Ion	Ratio	Lower	Upper
84	100		
86	58.9	44.4	84.4
49	115.2	105.7	145.7



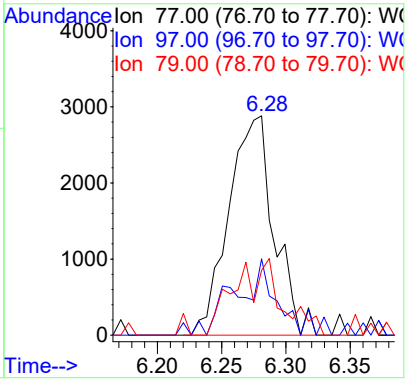
REASON # 2



#31
22dichloropr
Concen: 1.12 ug/L
RT: 6.28 min Scan# 740
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 3 Jan 2023 11:55

Tgt Ion: 77 Resp: 7093

Ion	Ratio	Lower	Upper
77	100		
97	0.0	3.2	43.2#
79	35.7	13.1	53.1



Before Manual Integration

DGS 01/04/2022

REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL2.D Vial: 5
Acq On : 3 Jan 2023 12:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:09:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1289253	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	982996	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	484097	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	325757	20.341 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102 %		
45) SURR12DCAd4	7.26	102	94414	21.099 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %		
61) SURRd8Tolule	9.71	98	1266892	19.868 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %		
83) SURR4BrFBenz	13.25	95	466278	18.598 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 93 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	13038	1.0687 ug/L	94
3) Chloromethan	2.11	50	17139	1.0171 ug/L	97
4) VinylChlorid	2.24	62	17972	1.0646 ug/L	93
5) Bromomethane	2.71	94	11351	1.1202 ug/L	97
6) Chloroethane	2.87	64	13144	1.1450 ug/L	83
7) Dichloroflmethane	3.18	67	28935	0.9957 ug/L	98
8) Trichlorofma	3.27	101	19214	0.8845 ug/L #	94
9) Ethylether	3.71	59	13431	0.9739 ug/L	99
10) dichlorotfluoroethan	3.71	67	21735	1.0593 ug/L	96
11) propyleneoxide	3.76	58	19918	5.9670 ug/L	92
12) Acrolein	3.83	56	19000	4.8183 ug/L	97
13) 11dichlorthe	3.99	96	12385	0.9313 ug/L	99
14) Trichlorotfluoroeth	4.02	101	23725	2.1263 ug/L	96
15) Acetone	4.06	43	64252m	7.4992 ug/L	96
16) Iodomethane	4.16	142	11564	0.7136 ug/L #	90
17) Carbon Dislf	4.26	76	66264	2.0209 ug/L	97
18) allylchloride	4.47	41	38241	1.7382 ug/L	93
19) methylacetate	4.52	74	5495	1.0988 ug/L #	36
20) Methylchlorid	4.63	84	18533m	1.1267 ug/L	95
21) tbutylalcohol	4.83	59	53942	33.5777 ug/L	97
22) Acrylonitrile	4.94	53	35178	5.0551 ug/L	98
23) t12dichlorte	5.00	96	14870	0.9994 ug/L	96
24) MtBE	5.03	73	37561	0.9202 ug/L	95
25) Hexane	5.40	57	36612	1.9952 ug/L	96
26) 11dichlorota	5.53	63	26090	0.9755 ug/L	98
27) Vinylacetate	5.62	43	231067	0.9772 ug/L	94
28) chloroprene	5.65	53	41785	1.8186 ug/L	94
29) Diisopether	5.68	45	45415	0.9411 ug/L	100
30) ETBE	6.13	59	33798	0.7907 ug/L	96
31) 22dichloropr	6.27	77	13327	0.6467 ug/L	97
32) c12dichlorte	6.26	96	17250	1.0168 ug/L	92
33) 2Butanone	6.28	72	22628	9.4294 ug/L	99
34) propionitrile	6.32	54	31594	10.7706 ug/L	97
35) Ethylacetate	6.38	88	3036	3.7885 ug/L	96
36) methacrylonitrile	6.52	67	14705	1.8982 ug/L	89
37) Bromochlorma	6.54	128	8608	1.1224 ug/L	92
38) Tetrahydofur	6.63	42	58462	10.2904 ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL2.D Vial: 5
Acq On : 3 Jan 2023 12:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:09:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.66	83	27890	1.0515 ug/L		91
40)	111trichlota	6.91	97	15952	0.7328 ug/L		99
42)	Cyclohexane	6.99	56	20577	1.0035 ug/L		98
43)	Carbtetraclo	7.13	119	12485	0.7021 ug/L		95
44)	11dicloprope	7.10	110	7025	0.9180 ug/L	#	90
46)	Benzene	7.36	78	61307	1.0043 ug/L		95
47)	12dichlorota	7.36	62	20884	0.9545 ug/L	#	92
48)	TAME	7.52	73	28860	0.7608 ug/L		80
49)	trichloroete	8.16	95	16227	1.0135 ug/L		97
50)	methylcyclohexane	8.42	83	22457	1.0825 ug/L		98
51)	12dicloropra	8.42	63	15348	0.9145 ug/L		94
52)	23Dicl1propene	8.49	75	20456	0.8431 ug/L		94
53)	Dibromometha	8.56	93	10353	1.1015 ug/L		98
54)	methylmethacrylate	8.58	69	8217	0.6602 ug/L	#	82
55)	14dioxane	8.61	88	12238	53.6731 ug/L		99
56)	Bromodiclrma	8.76	83	15017	0.7903 ug/L	#	92
57)	2Nitropropane	9.02	43	24428	12.3604 ug/L		96
58)	2CLEVE	9.15	63	22811	3.5443 ug/L		97
59)	c13dicloproe	9.35	75	18335	0.8142 ug/L		97
60)	4Meth2Pentan	9.54	43	150322	6.1506 ug/L		97
62)	Toluene	9.79	92	39512	0.9870 ug/L		97
63)	t13Dicloprop	10.04	75	11932	0.6171 ug/L		90
64)	ethylmethacrylate	10.20	69	26740	1.2677 ug/L		97
65)	112Triclotha	10.29	83	11202	0.9344 ug/L		95
66)	Tetrachlorte	10.53	166	17324	1.0736 ug/L		93
67)	13Diclorpropa	10.51	76	24768	0.9813 ug/L		98
69)	2Hexanone	10.63	43	102451	5.3710 ug/L		99
70)	Clorodibrmta	10.80	129	9715	0.7274 ug/L	#	84
71)	12Dibrometha	10.97	107	9360	0.6681 ug/L		99
72)	Chlorobenzen	11.65	112	44397	1.0845 ug/L		86
73)	1Clhexane	11.63	91	18659	0.8940 ug/L	#	60
74)	1112Tetclota	11.76	131	8938	0.6705 ug/L		94
75)	Ethylbenzene	11.82	91	67428	0.9832 ug/L		96
76)	m p-Xylene	11.98	106	55051	2.0759 ug/L		95
77)	o-Xylene	12.53	106	26527	1.0007 ug/L		89
78)	Styrene	12.53	104	41211	0.9758 ug/L		98
79)	Bromoform	12.77	173	5430	0.6232 ug/L		93
80)	Isopropylben	13.05	105	63554	1.0029 ug/L		99
81)	cyclohexanone	13.13	55	21667	15.0200 ug/L	#	90
84)	Bromobenzene	13.45	156	18313	1.1001 ug/L	#	85
85)	1122Tetrclta	13.42	83	17417	0.9197 ug/L		99
86)	123Triclproa	13.50	75	20277	0.8422 ug/L		93
87)	14dichloro2butene	13.52	53	4855	0.8089 ug/L	#	30
88)	n-Propylbenz	13.64	91	70367	0.9795 ug/L		97
89)	2chlorotolue	13.75	91	43378	0.9522 ug/L		98
90)	4chlorotolue	13.90	91	51746	0.9974 ug/L		98
91)	135Trimebenz	13.89	105	50366	0.9869 ug/L		99
92)	tbutylbenzen	14.36	119	45419	1.0362 ug/L		92
93)	124Trimetben	14.43	105	47951	0.9609 ug/L		93
94)	sbutylbenzen	14.68	105	58619	0.9808 ug/L		98
95)	13Diclorbenz	14.82	146	32875	1.1264 ug/L		92
96)	pIsopropylto	14.90	119	50131	0.9819 ug/L	#	98
97)	14dichlorobe	14.95	146	32661	1.0562 ug/L		85
98)	12dichlorobe	15.49	146	30447	1.0867 ug/L	#	82
99)	nButylbenzen	15.49	91	43217	0.9399 ug/L		97
100)	12dibromo3cl	16.59	157	2103m	0.5987 ug/L	#	0
101)	135Trichlorobenzene	16.91	180	21223	1.1019 ug/L		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JAN0323\WCAL2.D Vial: 5
Acq On : 3 Jan 2023 12:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:09:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	17478	1.0017	ug/L	89
103) Hexachlorobu	17.97	225	5744	0.8391	ug/L	84
104) Naphthalene	18.02	128	37013	0.9285	ug/L	99
105) 123Trichlben	18.34	180	15364	0.9668	ug/L	95

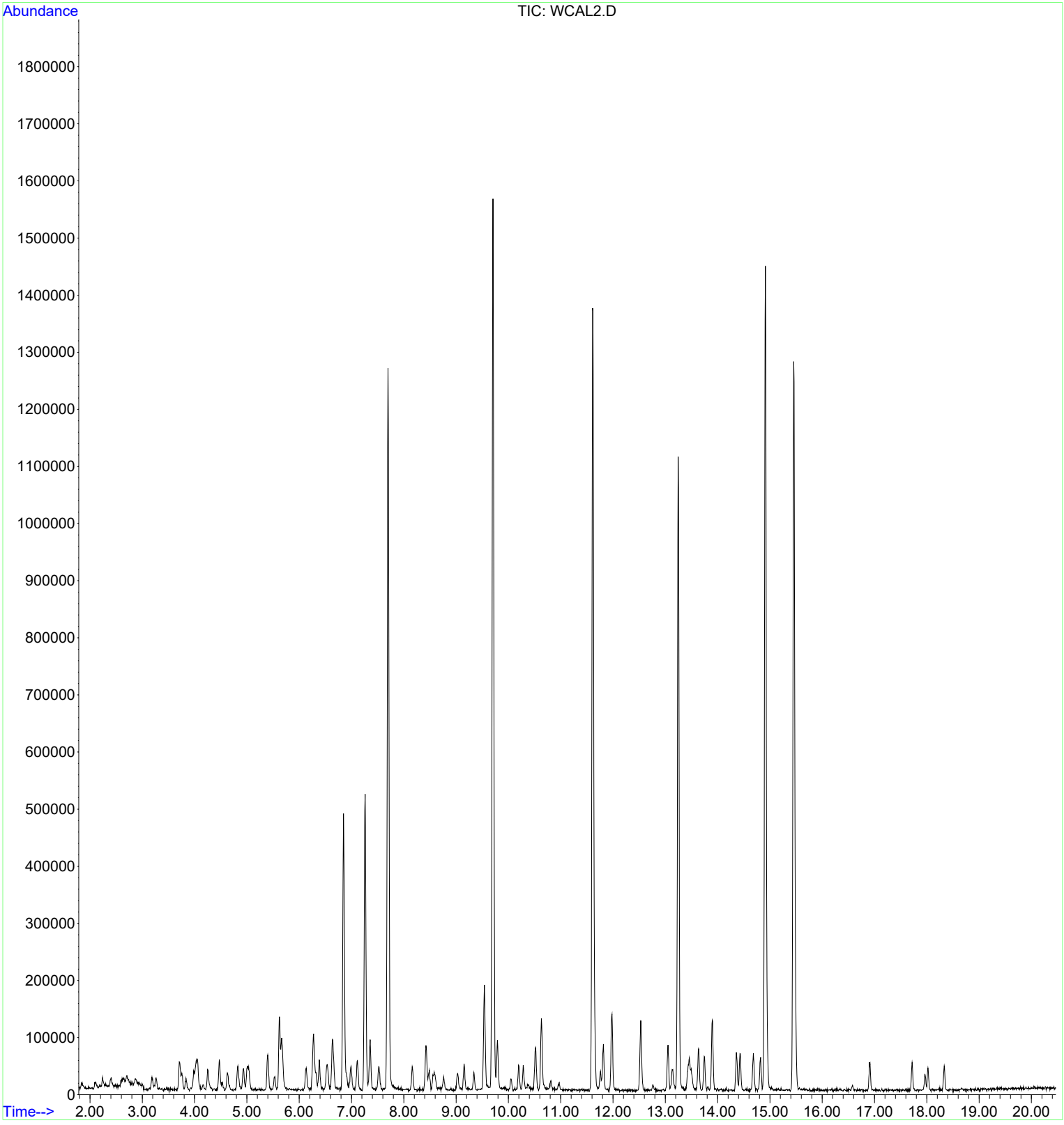
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL2.D Vial: 5
Acq On : 3 Jan 2023 12:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

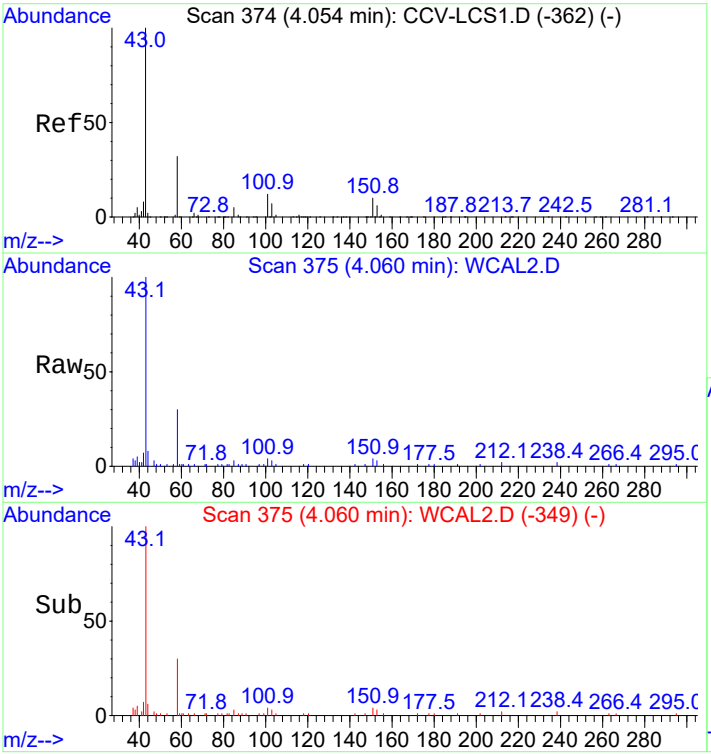
Quant Time: Jan 04 07:09:43 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



After Manual Integration

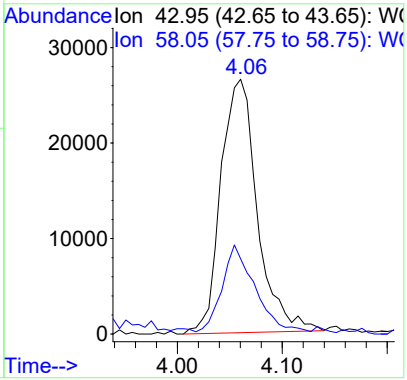
DGS 01/04/2022

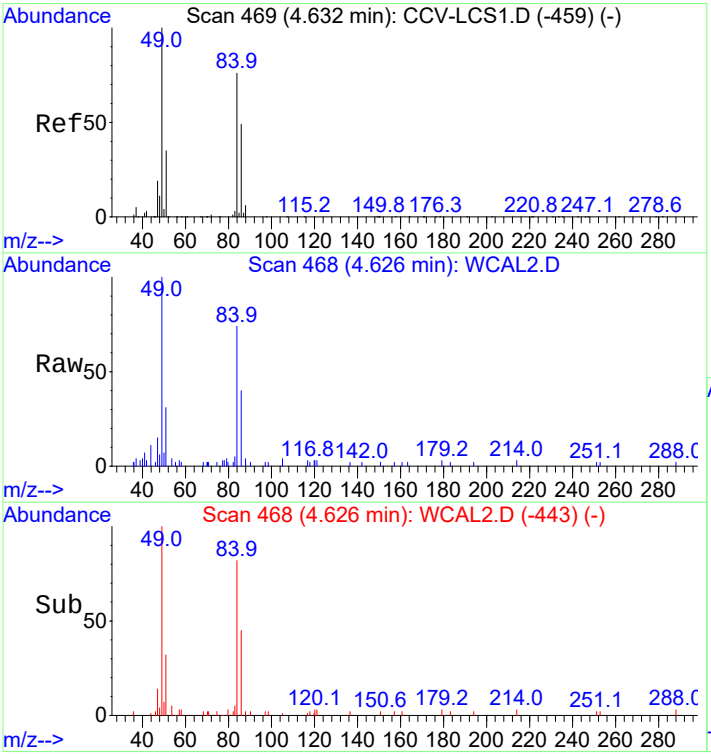


#15
Acetone
Concen: 7.50 ug/L m
RT: 4.06 min Scan# 375
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 3 Jan 2023 12:54

Tgt Ion: 43 Resp: 64252

Ion	Ratio	Lower	Upper
43	100		
58	30.3	11.3	51.3

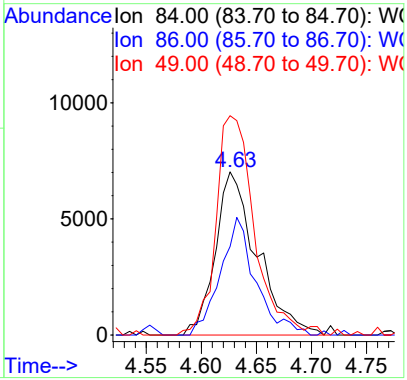




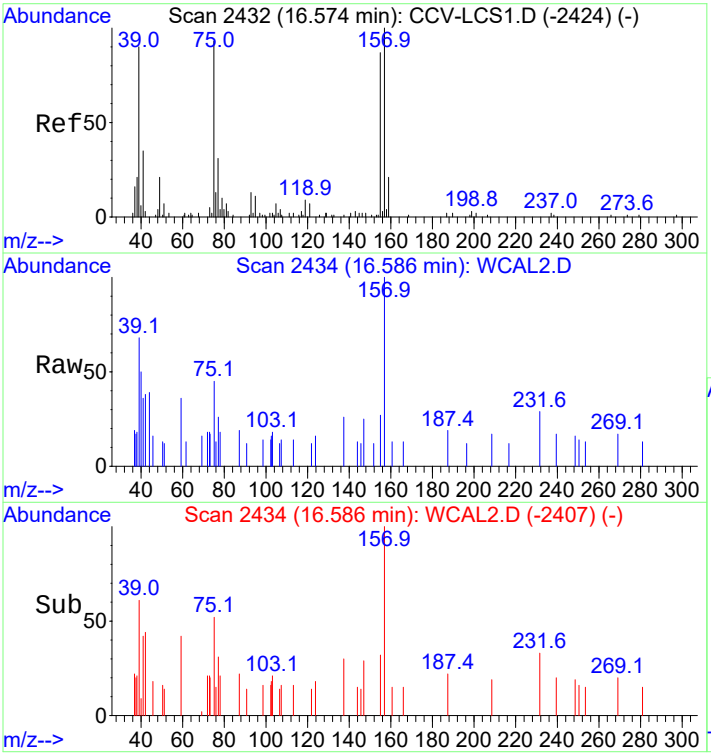
#20
Methylchlorid
Concen: 1.13 ug/L m
RT: 4.63 min Scan# 468
Delta R.T. -0.00 min
Lab File: WCAL2.D
Acq: 3 Jan 2023 12:54

Tgt Ion: 84 Resp: 18533

Ion	Ratio	Lower	Upper
84	100		
86	60.8	44.5	84.5
49	124.0	109.4	149.4



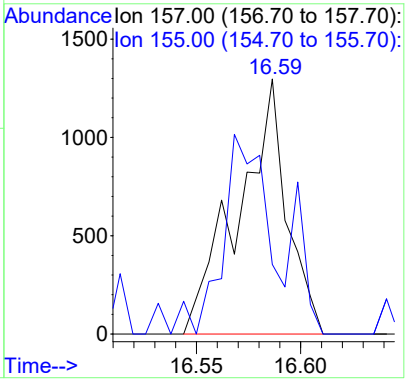
RJ 01/05/2023



#100
12dibromo3cl
Concen: 0.60 ug/L m
RT: 16.59 min Scan# 2434
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 3 Jan 2023 12:54

Tgt Ion:157 Resp: 2103

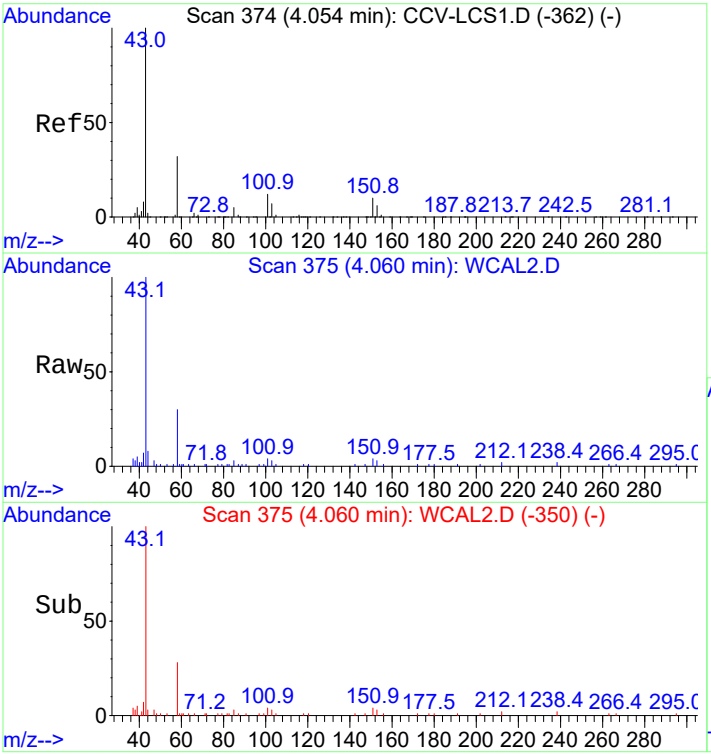
Ion	Ratio	Lower	Upper
157	100		
155	0.0	62.6	102.6#



After Manual Integration

DGS 01/04/2022

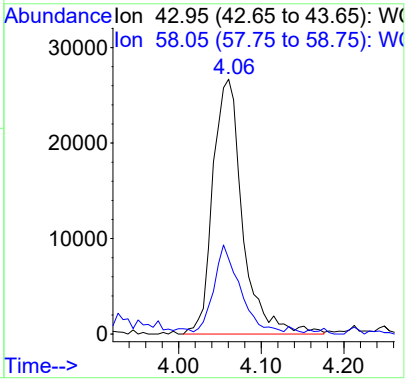
RJ 01/05/2023



#15
Acetone
Concen: 8.23 ug/L
RT: 4.06 min Scan# 375
Delta R.T. 0.00 min
Lab File: WCAL2.D
Acq: 3 Jan 2023 12:54

Tgt Ion: 43 Resp: 66808

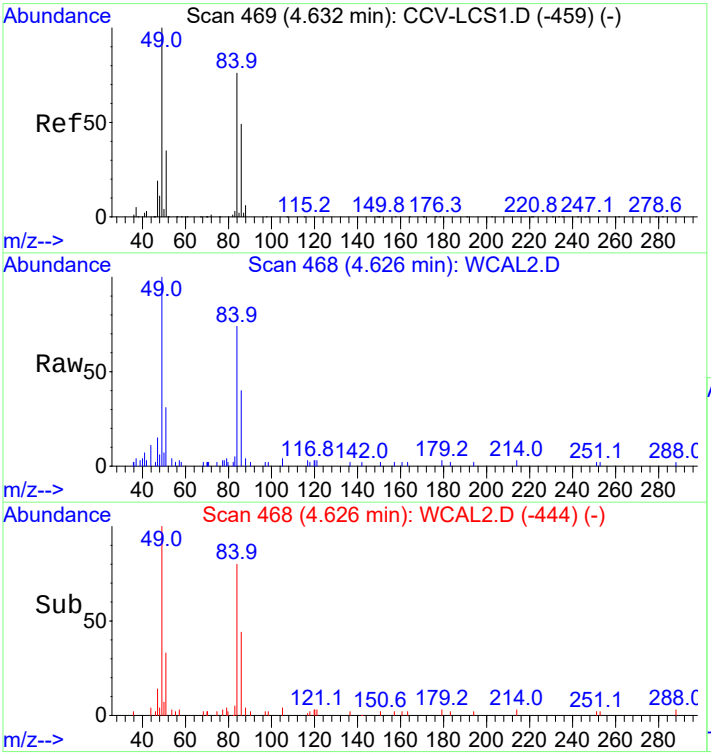
Ion	Ratio	Lower	Upper
43	100		
58	29.2	13.0	53.0



Before Manual Integration

DGS 01/04/2022

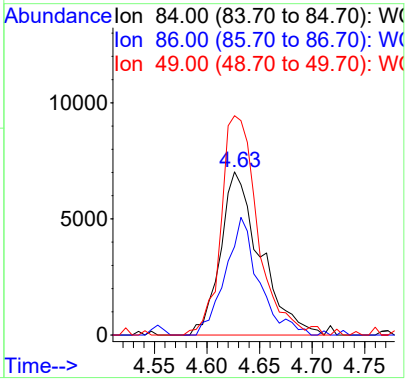
REASON # 2



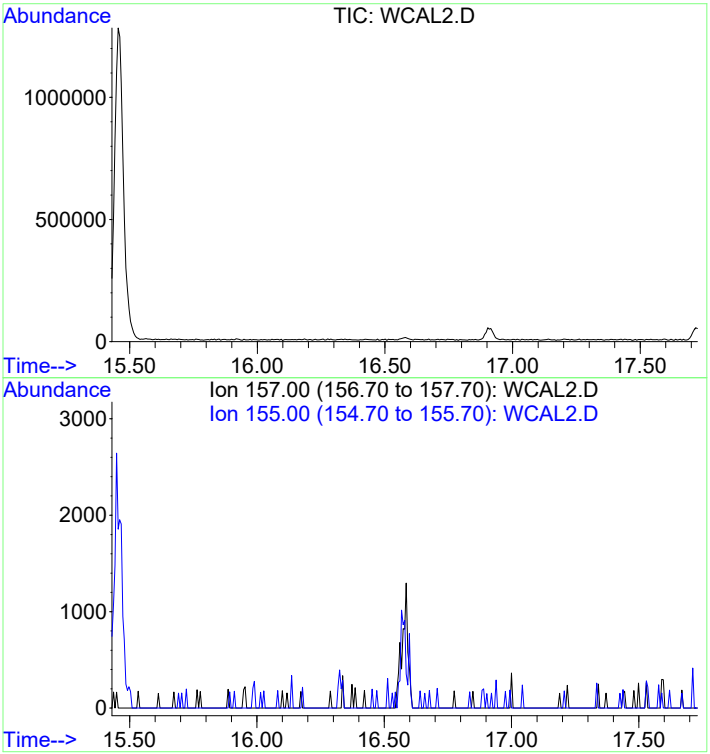
#20
Methylchlorid
Concen: 0.90 ug/L
RT: 4.63 min Scan# 468
Delta R.T. -0.01 min
Lab File: WCAL2.D
Acq: 3 Jan 2023 12:54

Tgt Ion: 84 Resp: 18533

Ion	Ratio	Lower	Upper
84	100		
86	60.8	44.4	84.4
49	124.0	105.7	145.7



REASON # 2



#100
12dibromo3cl
Concen: N.D.
Expected RT: 16.58 min

Lab File: WCAL2.D
Acq: 3 Jan 2023 12:54

Tgt Ion: 157

Sig	Exp Ratio
157	100
155	82.0

Before Manual Integration

DGS 01/04/2022

REASON # 1

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL3.D Vial: 6
Acq On : 3 Jan 2023 13:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 13:45:06 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1281028	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	983011	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	488216	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	324191	20.373 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102 %		
45) SURR12DCAd4	7.26	102	91557	20.592 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.71	98	1268910	20.027 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.25	95	463144	18.317 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 92 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	25040	2.0657 ug/L	97
3) Chloromethan	2.10	50	33775	2.0171 ug/L	100
4) VinylChlorid	2.24	62	35140	2.0949 ug/L	91
5) Bromomethane	2.70	94	22371	2.2218 ug/L	93
6) Chloroethane	2.87	64	24474	2.1457 ug/L	90
7) Dichloroflmethane	3.18	67	59703	2.0676 ug/L	96
8) Trichlorofma	3.26	101	39875	1.8475 ug/L	98
9) Ethylether	3.71	59	27137	1.9804 ug/L	97
10) dichlorotfluoroethan	3.72	67	41539	2.0375 ug/L	95
11) propyleneoxide	3.76	58	40943	12.3445 ug/L	92
12) Acrolein	3.84	56	36152	9.2268 ug/L	98
13) 11dichlorthe	3.99	96	24773	1.8748 ug/L	97
14) Trichlorotfluoroeth	4.02	101	47963	3.7357 ug/L	95
15) Acetone	4.06	43	115119	15.6184 ug/L	95
16) Iodomethane	4.16	142	30665	1.9044 ug/L	96
17) Carbon Dislf	4.26	76	120950	3.7124 ug/L	98
18) allylchloride	4.48	41	73329	3.3545 ug/L	97
19) methylacetate	4.53	74	7924	1.5948 ug/L	96
20) Methylchlorid	4.64	84	34288	2.0979 ug/L	92
21) tbutylalcohol	4.83	59	98900	61.9583 ug/L	100
22) Acrylonitrile	4.93	53	62377	9.0212 ug/L	99
23) t12dichlorte	5.02	96	27828	1.8823 ug/L	99
24) MtBE	5.04	73	74073	1.8263 ug/L	98
25) Hexane	5.40	57	77696	3.5278 ug/L	97
26) 11dichlorota	5.53	63	48399	1.8212 ug/L	97
27) Vinylacetate	5.62	43	471114	10.4372 ug/L	94
28) chloroprene	5.66	53	83205	3.6446 ug/L	98
29) Diisopether	5.68	45	88434	1.8443 ug/L	100
30) ETBE	6.13	59	67307	1.5847 ug/L	98
31) 22dichloropr	6.27	77	23022	1.1243 ug/L	93
32) c12dichlorte	6.26	96	31730	1.8823 ug/L	95
33) 2Butanone	6.28	72	44955	18.8537 ug/L	97
34) propionitrile	6.32	54	54468	18.6877 ug/L	94
35) Ethylacetate	6.39	88	6114	7.6784 ug/L	94
36) methacrylonitrile	6.53	67	28309	3.6777 ug/L	94
37) Bromochlorma	6.55	128	15527	2.0375 ug/L	92
38) Tetrahydofur	6.63	42	107155	18.9823 ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL3.D Vial: 6
Acq On : 3 Jan 2023 13:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 13:45:06 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	48225	1.8299	ug/L		98
40)	111trichlota	6.91	97	32367	1.4965	ug/L		98
42)	Cyclohexane	6.99	56	44212	1.7702	ug/L		98
43)	Carbtetraclo	7.12	119	21641	1.2248	ug/L		98
44)	11dicloprope	7.11	110	12939	1.7018	ug/L		97
46)	Benzene	7.36	78	117442	1.9362	ug/L		99
47)	12dichlorota	7.36	62	42134	1.9382	ug/L		100
48)	TAME	7.52	73	61240	1.6247	ug/L		90
49)	trichloroete	8.16	95	29577	1.8591	ug/L		90
50)	methylcyclohexane	8.43	83	45532	1.7906	ug/L		99
51)	12dicloropra	8.42	63	29305	1.7572	ug/L	#	94
52)	23Dicl1propene	8.48	75	43443	1.8020	ug/L		98
53)	Dibromometha	8.56	93	17565	1.8808	ug/L		90
54)	methylmethacrylate	8.59	69	17567	1.4206	ug/L		97
55)	14dioxane	8.60	88	22537	99.4768	ug/L		96
56)	Bromodiclrma	8.76	83	29215	1.5474	ug/L		98
57)	2Nitropropane	9.03	43	46791	16.5750	ug/L		90
58)	2CLEVE	9.15	63	42827	6.6970	ug/L		98
59)	c13dicloproe	9.34	75	32893	1.4700	ug/L		95
60)	4Meth2Pentan	9.54	43	282250	15.0184	ug/L		98
62)	Toluene	9.79	92	77415	1.9462	ug/L		99
63)	t13Dicloprop	10.05	75	24619	1.2815	ug/L		94
64)	ethylmethacrylate	10.20	69	56026	2.6732	ug/L		97
65)	112Triclotha	10.28	83	22288	1.8711	ug/L		99
66)	Tetrachlorte	10.53	166	32510	2.0276	ug/L		97
67)	13Diclorpropa	10.51	76	49436	1.9712	ug/L		95
69)	2Hexanone	10.63	43	208946	14.5919	ug/L		96
70)	Clorodibrmta	10.81	129	20267	1.5174	ug/L		97
71)	12Dibrometha	10.97	107	20046	1.4309	ug/L		91
72)	Chlorobenzen	11.65	112	84024	2.0524	ug/L		97
73)	1Clhexane	11.63	91	37145	1.7797	ug/L	#	80
74)	1112Tetclota	11.76	131	17401	1.3053	ug/L		96
75)	Ethylbenzene	11.81	91	135984	1.9828	ug/L		100
76)	m p-Xylene	11.98	106	108473	4.0904	ug/L		97
77)	o-Xylene	12.52	106	53432	2.0155	ug/L		99
78)	Styrene	12.53	104	82396	1.9511	ug/L		100
79)	Bromoform	12.77	173	12068	1.3850	ug/L		94
80)	Isopropylben	13.05	105	127631	2.0140	ug/L		100
81)	cyclohexanone	13.14	55	45749	31.7137	ug/L		99
84)	Bromobenzene	13.46	156	32292	1.9234	ug/L		97
85)	1122Tetrclta	13.43	83	36957	1.9350	ug/L		95
86)	123Triclproa	13.49	75	40138	1.6531	ug/L		93
87)	14dichloro2butene	13.51	53	9141	1.5101	ug/L		84
88)	n-Propylbenz	13.64	91	141602	1.9546	ug/L		93
89)	2chlorotolue	13.75	91	85686	1.8651	ug/L		92
90)	4chlorotolue	13.90	91	103523	1.9786	ug/L		97
91)	135Trimebenz	13.90	105	99896	1.9408	ug/L		99
92)	tbutylbenzen	14.37	119	86529	1.9575	ug/L		96
93)	124Trimetben	14.43	105	97441	1.9361	ug/L		96
94)	sbutylbenzen	14.68	105	112880	1.8727	ug/L		98
95)	13Diclorbenz	14.82	146	61473	2.0884	ug/L		97
96)	pIsopropylto	14.90	119	102233	1.9855	ug/L		99
97)	14dichlorobe	14.94	146	64038	2.0534	ug/L		93
98)	12dichlorobe	15.48	146	60947	2.1570	ug/L		94
99)	nButylbenzen	15.50	91	84869	1.8302	ug/L		98
100)	12dibromo3cl	16.58	157	4015	1.1333	ug/L		88
101)	135Trichlorobenzene	16.91	180	41534	2.1383	ug/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JAN0323\WCAL3.D Vial: 6
Acq On : 3 Jan 2023 13:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 13:45:06 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	33099	1.8810	ug/L	95
103) Hexachlorobu	17.96	225	12788	1.8524	ug/L	97
104) Naphthalene	18.02	128	68377	1.7008	ug/L	98
105) 123Trichlben	18.33	180	32581	2.0329	ug/L	95

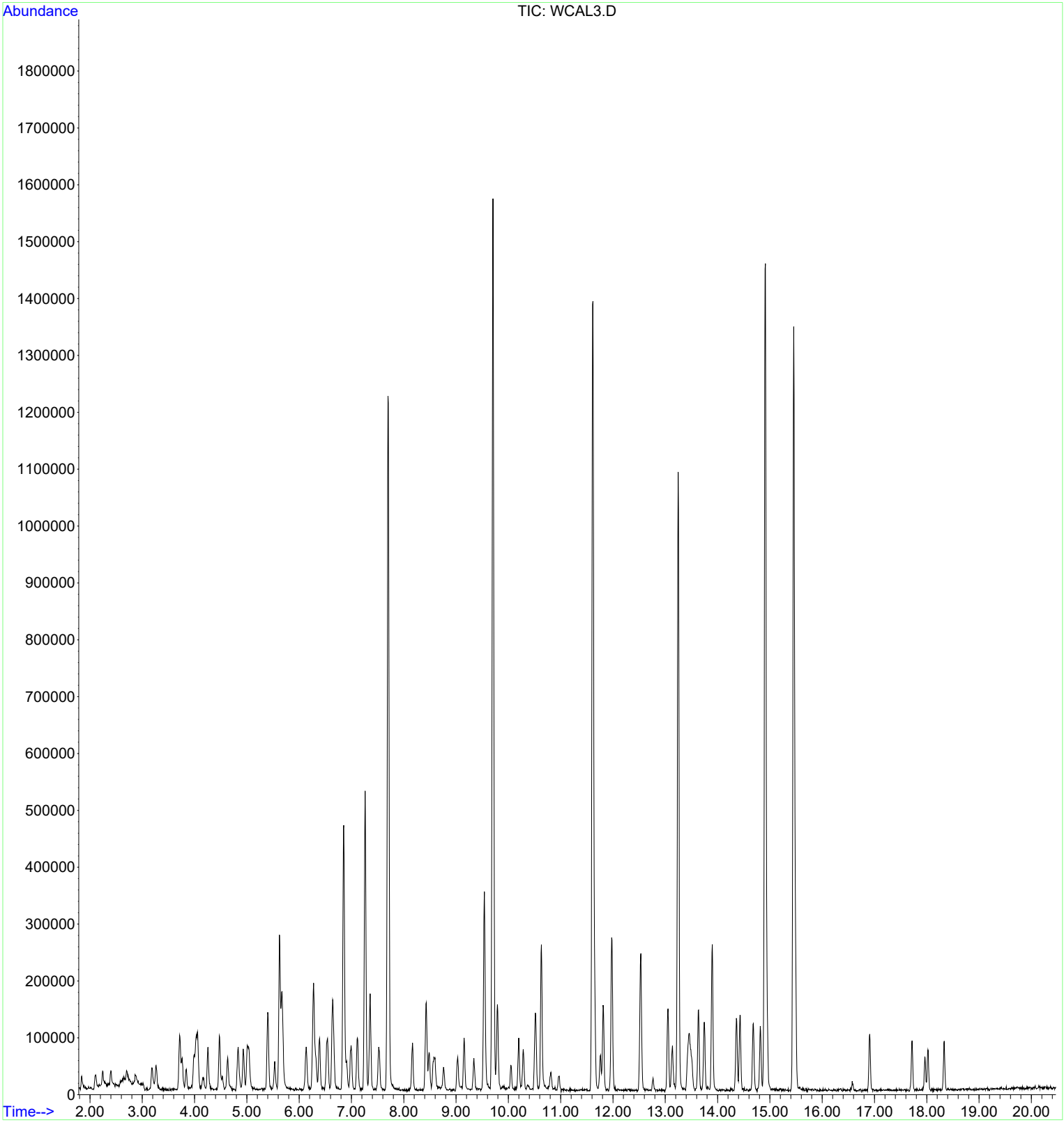
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL3.D Vial: 6
Acq On : 3 Jan 2023 13:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 13:45:06 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL4.D Vial: 7
Acq On : 3 Jan 2023 13:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:13:38 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1267677	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	985084	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	492338	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	326017	20.704	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104	%		
45) SURR12DCAd4	7.27	102	91379	20.768	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104	%		
61) SURRd8Tolule	9.71	98	1260833	20.109	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	476483	18.687	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 93	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	65532	5.4631	ug/L	99
3) Chloromethan	2.11	50	87341	5.2711	ug/L	96
4) VinylChlorid	2.24	62	90438	5.4482	ug/L	99
5) Bromomethane	2.70	94	50602	5.0786	ug/L	98
6) Chloroethane	2.87	64	61832	5.4781	ug/L	96
7) Dichloroflmethane	3.18	67	142758	4.9959	ug/L	99
8) Trichlorofma	3.26	101	103152	4.8296	ug/L	98
9) Ethylether	3.71	59	63756	4.7018	ug/L	97
10) dichlorotfluoroethan	3.72	67	113436	5.6225	ug/L	99
11) propyleneoxide	3.76	58	111040	33.8316	ug/L	94
12) Acrolein	3.84	56	92300	23.8052	ug/L	98
13) 11dichlorthe	3.99	96	65610	5.0176	ug/L	99
14) Trichlorotfluoroeth	4.03	101	127841	9.1293	ug/L	96
15) Acetone	4.05	43	270597	41.0117	ug/L	97
16) Iodomethane	4.16	142	93620	5.8754	ug/L	95
17) Carbon Dislf	4.25	76	318608	9.8823	ug/L	100
18) allylchloride	4.47	41	186681	8.6298	ug/L	95
19) methylacetate	4.52	74	22104	4.4954	ug/L	92
20) Methylchlorid	4.63	84	76629	4.7378	ug/L	98
21) tbutylalcohol	4.83	59	275699	174.5374	ug/L	99
22) Acrylonitrile	4.93	53	162068	23.6856	ug/L	99
23) t12dichlorte	5.00	96	71674	4.8991	ug/L	98
24) MtBE	5.04	73	187377	4.6686	ug/L	99
25) Hexane	5.40	57	216122	8.8010	ug/L	99
26) 11dichlorota	5.53	63	126529	4.8114	ug/L	100
27) Vinylacetate	5.62	43	1245760	42.1192	ug/L	98
28) chloroprene	5.66	53	216342	9.5761	ug/L	97
29) Diisopether	5.68	45	214640	4.5236	ug/L	97
30) ETBE	6.13	59	175894	4.1848	ug/L	99
31) 22dichloropr	6.27	77	67014	3.3071	ug/L	97
32) c12dichlorte	6.26	96	79911	4.7903	ug/L	92
33) 2Butanone	6.28	72	109979	46.6099	ug/L	100
34) propionitrile	6.32	54	136575	47.3516	ug/L	97
35) Ethylacetate	6.38	88	16710	21.2067	ug/L #	91
36) methacrylonitrile	6.53	67	71353	9.3672	ug/L	97
37) Bromochlorma	6.54	128	35998	4.7736	ug/L	95
38) Tetrahydofur	6.63	42	267045	47.8047	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL4.D Vial: 7
Acq On : 3 Jan 2023 13:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:13:38 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	120930	4.6370	ug/L	100
40)	111trichlota	6.90	97	88478	4.1339	ug/L	97
42)	Cyclohexane	6.99	56	121437	4.3192	ug/L	95
43)	Carbtetraclo	7.12	119	63259	3.6179	ug/L	94
44)	11dicloprope	7.11	110	36643	4.8701	ug/L	95
46)	Benzene	7.36	78	301095	5.0163	ug/L	99
47)	12dichlorota	7.35	62	104706	4.8672	ug/L	98
48)	TAME	7.52	73	160697	4.3082	ug/L	91
49)	trichloroete	8.17	95	76655	4.8690	ug/L	91
50)	methylcyclohexane	8.43	83	133724	4.5417	ug/L	97
51)	12dicloropra	8.42	63	79170	4.7973	ug/L	97
52)	23Dicl1propene	8.49	75	104137	4.3650	ug/L	99
53)	Dibromometha	8.56	93	44598	4.8256	ug/L	95
54)	methylmethacrylate	8.59	69	48711	3.9805	ug/L	97
55)	14dioxane	8.60	88	54401	242.6512	ug/L	94
56)	Bromodiclrma	8.76	83	78971	4.2268	ug/L	99
57)	2Nitropropane	9.02	43	124453	31.4098	ug/L	97
58)	2CLEVE	9.15	63	126953	20.0613	ug/L	97
59)	c13dicloproe	9.34	75	92046	4.1569	ug/L	97
60)	4Meth2Pentan	9.54	43	728151	45.9837	ug/L	98
62)	Toluene	9.79	92	192655	4.8943	ug/L	96
63)	t13Dicloprop	10.05	75	71439	3.7578	ug/L	98
64)	ethylmethacrylate	10.19	69	165721	7.9903	ug/L	99
65)	112Triclotha	10.29	83	55729	4.7278	ug/L	97
66)	Tetrachlorte	10.53	166	83689	5.2745	ug/L	99
67)	13Diclorpropa	10.51	76	118629	4.7801	ug/L	99
69)	2Hexanone	10.63	43	525715	42.4387	ug/L	100
70)	Clorodibrmta	10.81	129	54592	4.0787	ug/L	96
71)	12Dibrometha	10.97	107	56552	4.0282	ug/L	98
72)	Chlorobenzen	11.65	112	212765	5.1861	ug/L	98
73)	1Clhexane	11.63	91	98165	4.6933	ug/L	94
74)	1112Tetclota	11.76	131	51291	3.8393	ug/L	96
75)	Ethylbenzene	11.82	91	344887	5.0181	ug/L	98
76)	m p-Xylene	11.98	106	277091	10.4267	ug/L	95
77)	o-Xylene	12.52	106	133272	5.0166	ug/L	96
78)	Styrene	12.54	104	218037	5.1520	ug/L	96
79)	Bromoform	12.77	173	32333	3.7029	ug/L	95
80)	Isopropylben	13.05	105	333098	5.2452	ug/L	100
81)	cyclohexanone	13.14	55	121572	84.0977	ug/L	94
84)	Bromobenzene	13.46	156	83261	4.9178	ug/L	89
85)	1122Tetrclta	13.43	83	85785	4.4539	ug/L	96
86)	123Triclproa	13.49	75	104885	4.2837	ug/L	94
87)	14dichloro2butene	13.52	53	24283	3.9779	ug/L	82
88)	n-Propylbenz	13.64	91	370270	5.0681	ug/L	97
89)	2chlorotolue	13.75	91	222825	4.8094	ug/L	96
90)	4chlorotolue	13.90	91	259302	4.9146	ug/L	99
91)	135Trimebenz	13.90	105	271008	5.2212	ug/L	100
92)	tbutylbenzen	14.36	119	236909	5.3146	ug/L	93
93)	124Trimetben	14.43	105	261404	5.1505	ug/L	98
94)	sbutylbenzen	14.68	105	316336	5.2041	ug/L	100
95)	13Diclorbenz	14.82	146	149708	5.0434	ug/L	99
96)	pIsopropylto	14.90	119	275005	5.2961	ug/L	98
97)	14dichlorobe	14.95	146	154267	4.9051	ug/L	96
98)	12dichlorobe	15.49	146	150493	5.2816	ug/L	99
99)	nButylbenzen	15.49	91	225851	4.8296	ug/L	98
100)	12dibromo3cl	16.58	157	10936	3.0611	ug/L	99
101)	135Trichlorobenzene	16.91	180	103118	5.2643	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JAN0323\WCAL4.D Vial: 7
Acq On : 3 Jan 2023 13:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:13:38 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	89269	5.0306	ug/L	98
103) Hexachlorobu	17.97	225	36636	5.2626	ug/L	95
104) Naphthalene	18.03	128	195583	4.8242	ug/L	98
105) 123Trichlben	18.33	180	81730	5.0569	ug/L	97

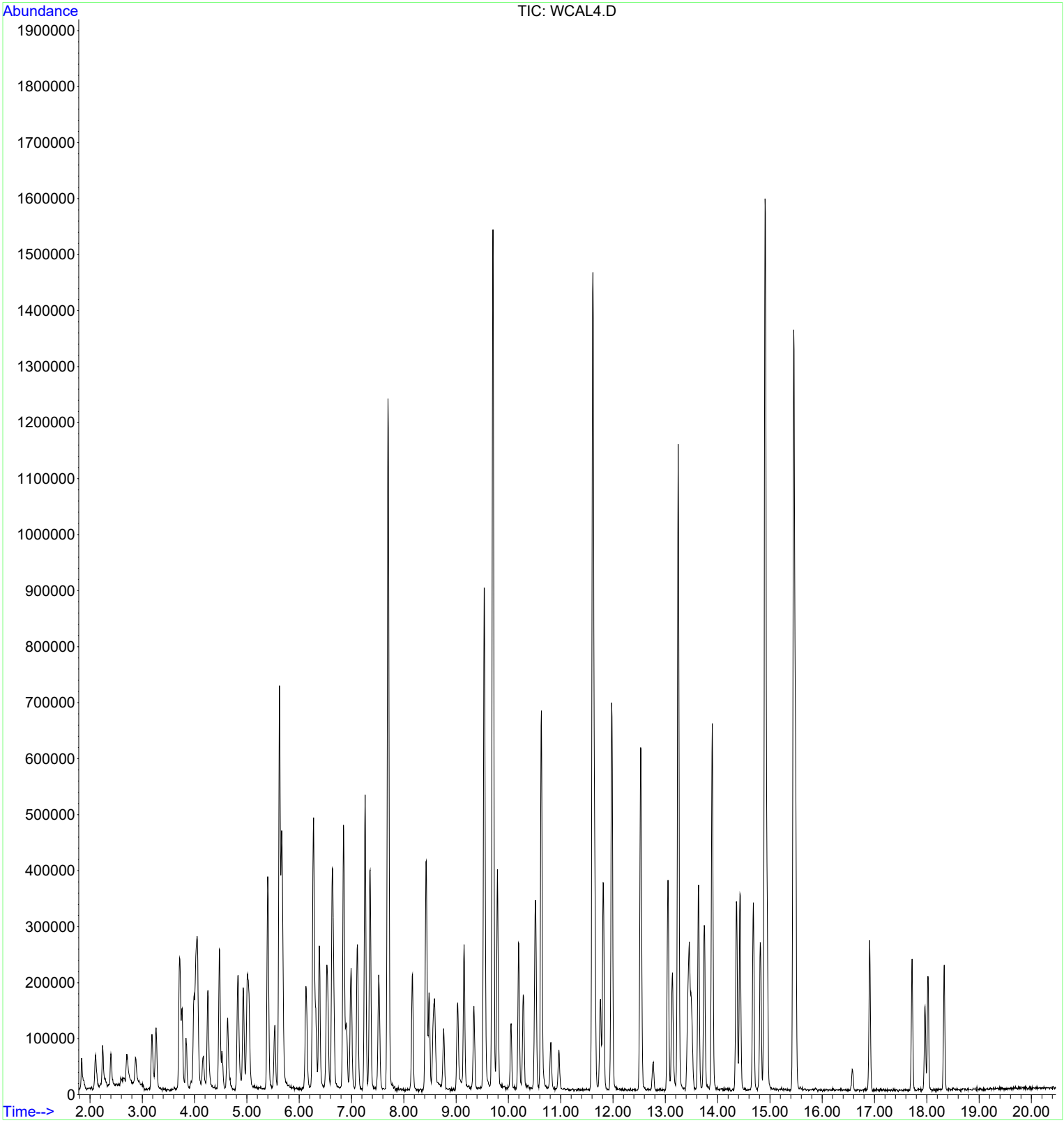
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL4.D Vial: 7
Acq On : 3 Jan 2023 13:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:13:38 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL5.D Vial: 8
Acq On : 3 Jan 2023 14:23 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:44:00 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1316944	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1016902	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	517486	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	337216	20.614 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.26	102	94706	20.719 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104 %		
61) SURRd8Tolule	9.71	98	1304052	20.021 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.25	95	491197	18.328 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 92 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	143680	11.5298 ug/L	97
3) Chloromethan	2.11	50	163196	9.4806 ug/L	99
4) VinylChlorid	2.24	62	189655	10.9979 ug/L	98
5) Bromomethane	2.70	94	92989	8.9836 ug/L	96
6) Chloroethane	2.87	64	123967	10.5721 ug/L	98
7) Dichloroflmethane	3.18	67	272518	9.1802 ug/L	98
8) Trichlorofma	3.26	101	226684	10.2162 ug/L	99
9) Ethylether	3.71	59	120330	8.5420 ug/L	97
10) dichlorotfluoroethan	3.72	67	233425	11.1371 ug/L	98
11) propyleneoxide	3.76	58	230754	67.6758 ug/L	93
12) Acrolein	3.84	56	180507	44.8132 ug/L	98
13) 11dichlorthe	3.99	96	136638	10.0585 ug/L	95
14) Trichlorotfluoroeth	4.03	101	282574	18.9376 ug/L	97
15) Acetone	4.06	43	541373	82.6914 ug/L	97
16) Iodomethane	4.16	142	228263	13.7893 ug/L	98
17) Carbon Dislf	4.26	76	654661	19.5461 ug/L	100
18) allylchloride	4.47	41	387389	17.2382 ug/L	98
19) methylacetate	4.53	74	43588	8.5331 ug/L	95
20) Methylchlorid	4.63	84	143955	8.5675 ug/L	98
21) tbutylalcohol	4.83	59	623751	380.1070 ug/L	98
22) Acrylonitrile	4.93	53	333008	46.8472 ug/L	99
23) t12dichlorte	5.01	96	144033	9.4768 ug/L	99
24) MtBE	5.03	73	373411	8.9556 ug/L	100
25) Hexane	5.40	57	479767	18.3213 ug/L	98
26) 11dichlorota	5.54	63	242542	8.8778 ug/L	99
27) Vinylacetate	5.62	43	2485913	91.3315 ug/L	100
28) chloroprene	5.66	53	450740	19.2051 ug/L	95
29) Diisopether	5.68	45	413751	8.3937 ug/L	92
30) ETBE	6.13	59	364841	8.3554 ug/L	98
31) 22dichloropr	6.27	77	148673	7.0624 ug/L	99
32) c12dichlorte	6.26	96	154480	8.9140 ug/L	98
33) 2Butanone	6.28	72	224103	91.4233 ug/L	100
34) propionitrile	6.32	54	278594	92.9772 ug/L	98
35) Ethylacetate	6.38	88	34606	42.2755 ug/L	98
36) methacrylonitrile	6.52	67	140688	17.7785 ug/L	99
37) Bromochlorma	6.55	128	76736	9.7951 ug/L	96
38) Tetrahydofur	6.63	42	557179	96.0113 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL5.D Vial: 8
Acq On : 3 Jan 2023 14:23 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:44:00 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	241813	8.9252	ug/L	98
40)	111trichlota	6.91	97	189502	8.5227	ug/L	98
42)	Cyclohexane	6.99	56	275812	9.1147	ug/L	99
43)	Carbtetraclo	7.12	119	146635	8.0725	ug/L	98
44)	11dicloprope	7.11	110	75583	9.6696	ug/L	96
46)	Benzene	7.36	78	574941	9.2204	ug/L	99
47)	12dichlorota	7.36	62	202155	9.0455	ug/L	100
48)	TAME	7.52	73	330089	8.5184	ug/L	96
49)	trichloroete	8.16	95	150533	9.2040	ug/L	90
50)	methylcyclohexane	8.43	83	293210	9.2189	ug/L	97
51)	12dicloropra	8.42	63	154124	8.9898	ug/L	100
52)	23Dicl1propene	8.48	75	221160	8.9233	ug/L	98
53)	Dibromometha	8.56	93	88984	9.2681	ug/L	94
54)	methylmethacrylate	8.59	69	107832	8.4821	ug/L	98
55)	14dioxane	8.60	88	108607	466.3100	ug/L	99
56)	Bromodiclrma	8.76	83	158900	8.1867	ug/L	98
57)	2Nitropropane	9.03	43	285640	60.2212	ug/L	96
58)	2CLEVE	9.15	63	281758	42.8581	ug/L	99
59)	c13dicloproe	9.34	75	206132	8.9609	ug/L	100
60)	4Meth2Pentan	9.54	43	1443157	93.7644	ug/L	99
62)	Toluene	9.79	92	386553	9.4527	ug/L	99
63)	t13Dicloprop	10.05	75	161361	8.1703	ug/L	96
64)	ethylmethacrylate	10.20	69	364351	16.9102	ug/L	99
65)	112Triclotha	10.28	83	111212	9.0817	ug/L	96
66)	Tetrachlorte	10.52	166	169234	10.2669	ug/L	99
67)	13Diclorpropa	10.51	76	239856	9.3033	ug/L	100
69)	2Hexanone	10.63	43	1090790	91.0683	ug/L	99
70)	Clorodibrmta	10.81	129	119604	8.6562	ug/L	98
71)	12Dibrometha	10.97	107	126270	8.7128	ug/L	97
72)	Chlorobenzen	11.65	112	409235	9.6628	ug/L	95
73)	1Clhexane	11.63	91	209010	9.6801	ug/L	98
74)	1112Tetclota	11.76	131	110796	8.0339	ug/L	97
75)	Ethylbenzene	11.82	91	683324	9.6313	ug/L	98
76)	m p-Xylene	11.98	106	549621	20.0347	ug/L	92
77)	o-Xylene	12.53	106	269489	9.8267	ug/L	91
78)	Styrene	12.53	104	429374	9.8283	ug/L	97
79)	Bromoform	12.77	173	72313	8.0225	ug/L	96
80)	Isopropylben	13.05	105	675118	10.2982	ug/L	98
81)	cyclohexanone	13.13	55	267108	178.9912	ug/L	98
84)	Bromobenzene	13.46	156	168273	9.4560	ug/L	91
85)	1122Tetrclta	13.43	83	178800	8.8321	ug/L	96
86)	123Triclproa	13.49	75	221456	8.6051	ug/L	96
87)	14dichloro2butene	13.51	53	50686	7.8996	ug/L	94
88)	n-Propylbenz	13.64	91	762430	9.9287	ug/L	97
89)	2chlorotolue	13.75	91	437454	8.9831	ug/L	96
90)	4chlorotolue	13.90	91	515242	9.2909	ug/L	98
91)	135Trimebenz	13.89	105	549601	10.0739	ug/L	99
92)	tbutylbenzen	14.36	119	475965	10.1584	ug/L	95
93)	124Trimetben	14.43	105	526536	9.8702	ug/L	97
94)	sbutylbenzen	14.68	105	653239	10.2242	ug/L	98
95)	13Diclorbenz	14.82	146	301955	9.6780	ug/L	99
96)	pIsopropylto	14.90	119	572787	10.4949	ug/L	99
97)	14dichlorobe	14.95	146	306951	9.2857	ug/L	99
98)	12dichlorobe	15.49	146	293950	9.8150	ug/L	99
99)	nButylbenzen	15.49	91	473482	9.6330	ug/L	98
100)	12dibromo3cl	16.58	157	27779	7.3977	ug/L	99
101)	135Trichlorobenzene	16.91	180	206082	10.0095	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JAN0323\WCAL5.D Vial: 8
Acq On : 3 Jan 2023 14:23 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:44:00 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	182033	9.7596	ug/L	97
103) Hexachlorobu	17.97	225	77356	10.5718	ug/L	94
104) Naphthalene	18.02	128	418822	9.8285	ug/L	98
105) 123Trichlben	18.33	180	164730	9.6970	ug/L	99

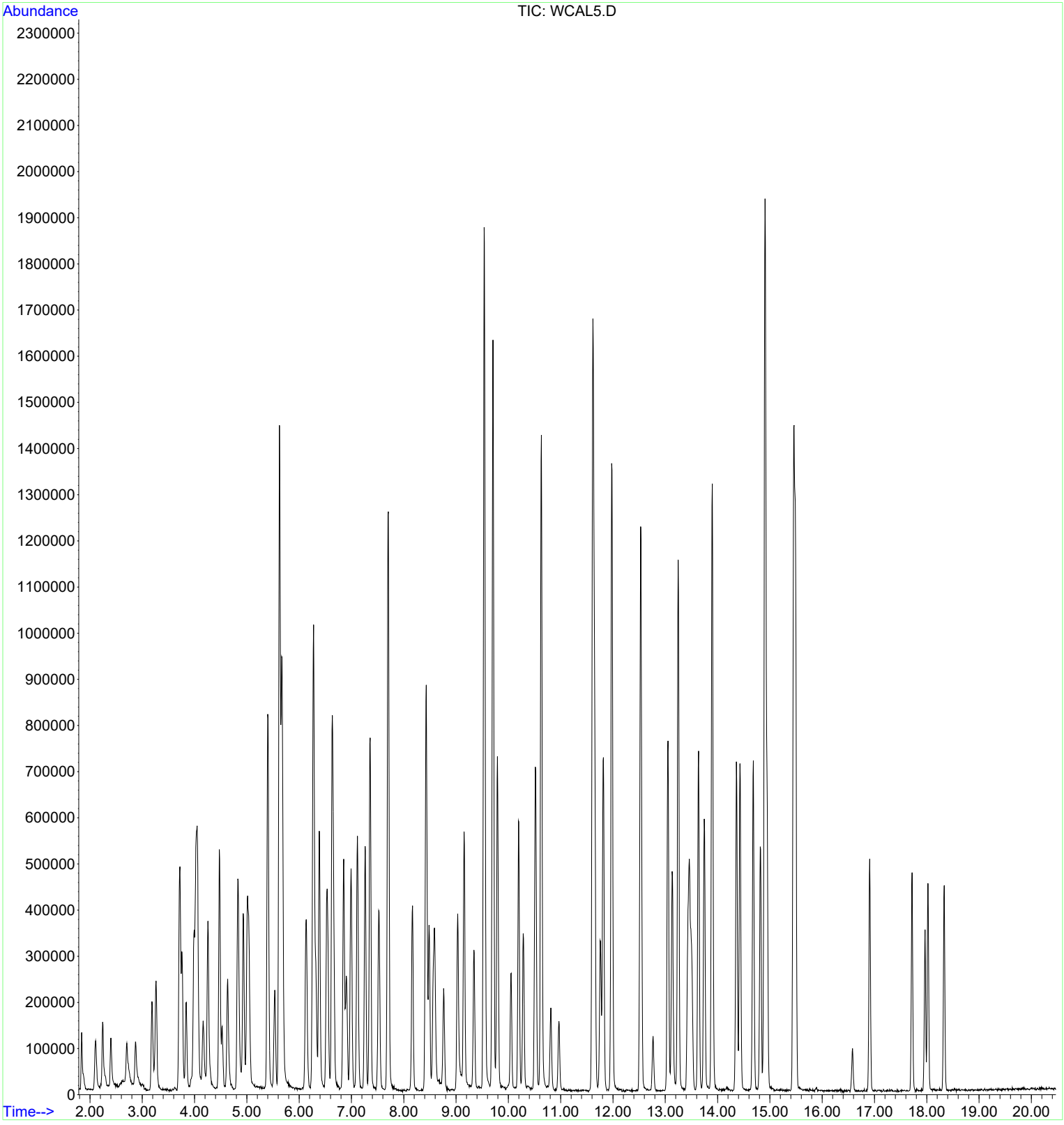
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL5.D Vial: 8
Acq On : 3 Jan 2023 14:23 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 14:44:00 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL6.D Vial: 9
Acq On : 3 Jan 2023 14:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:13:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1317930	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1034152	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	533902	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	343282	20.969	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105	%		
45) SURR12DCAd4	7.27	102	96646	21.128	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 106	%		
61) SURRd8Tolule	9.71	98	1325004	20.327	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	493087	17.833	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 89	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	287591	23.0609	ug/L	97
3) Chloromethan	2.11	50	331284	19.2311	ug/L	97
4) VinylChlorid	2.24	62	372777	21.6008	ug/L	99
5) Bromomethane	2.70	94	178949	17.2751	ug/L	99
6) Chloroethane	2.87	64	244485	20.8345	ug/L	99
7) Dichloroflmethane	3.19	67	555310	18.6925	ug/L	98
8) Trichlorofma	3.26	101	455083	20.4944	ug/L	100
9) Ethylether	3.71	59	246951	17.5175	ug/L	95
10) dichlorotfluoroethan	3.73	67	461151	21.9857	ug/L	97
11) propyleneoxide	3.76	58	453438	132.8853	ug/L	97
12) Acrolein	3.84	56	348328	86.4122	ug/L	98
13) 11dichlorthe	3.99	96	266612	19.6118	ug/L	98
14) Trichlorotfluoroeth	4.03	101	561332	37.6549	ug/L	97
15) Acetone	4.06	43	1032260	165.2348	ug/L	95
16) Iodomethane	4.16	142	556550	33.5959	ug/L	98
17) Carbon Dislf	4.25	76	1332432	39.7525	ug/L	100
18) allylchloride	4.48	41	812818	36.1420	ug/L	98
19) methylacetate	4.53	74	89245	17.4582	ug/L	91
20) Methylchlorid	4.63	84	286586	17.0434	ug/L	97
21) tbutylalcohol	4.83	59	1274158	775.8770	ug/L	97
22) Acrylonitrile	4.94	53	621387	87.3506	ug/L	99
23) t12dichlorte	5.01	96	302543	19.8912	ug/L	97
24) MtBE	5.04	73	766579	18.3713	ug/L	99
25) Hexane	5.40	57	953988	36.7896	ug/L	100
26) 11dichlorota	5.53	63	503935	18.4319	ug/L	99
27) Vinylacetate	5.62	43	4381146	177.4673	ug/L	96
28) chloroprene	5.67	53	915787	38.9906	ug/L	95
29) Diisopether	5.68	45	913807	18.5244	ug/L	99
30) ETBE	6.13	59	779972	17.8492	ug/L	99
31) 22dichloropr	6.27	77	335713	15.9354	ug/L	99
32) c12dichlorte	6.27	96	334670	19.2972	ug/L	91
33) 2Butanone	6.28	72	430500	175.4920	ug/L	98
34) propionitrile	6.32	54	518435	172.8917	ug/L	98
35) Ethylacetate	6.38	88	73376	89.5707	ug/L #	91
36) methacrylonitrile	6.53	67	289813	36.5958	ug/L	95
37) Bromochlorma	6.55	128	155243	19.8014	ug/L	95
38) Tetrahydofur	6.63	42	1004910	173.0334	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL6.D Vial: 9
Acq On : 3 Jan 2023 14:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:13:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	493250	18.1921	ug/L	99
40)	111trichlota	6.91	97	411555	18.4955	ug/L	99
42)	Cyclohexane	6.99	56	547719	18.0571	ug/L	97
43)	Carbtetraclo	7.12	119	331034	18.2104	ug/L	97
44)	11dicloprope	7.11	110	157758	20.1675	ug/L	92
46)	Benzene	7.36	78	1135095	18.1900	ug/L	98
47)	12dichlorota	7.36	62	414436	18.5302	ug/L	97
48)	TAME	7.52	73	718234	18.5211	ug/L	99
49)	trichloroete	8.17	95	316872	19.3599	ug/L	92
50)	methylcyclohexane	8.43	83	581082	18.1786	ug/L	98
51)	12dicloropra	8.42	63	314417	18.3257	ug/L	98
52)	23Dicl1propene	8.48	75	482084	19.4363	ug/L	97
53)	Dibromometha	8.56	93	189705	19.7438	ug/L	96
54)	methylmethacrylate	8.59	69	217120	17.0660	ug/L	98
55)	14dioxane	8.60	88	209587	899.1998	ug/L	96
56)	Bromodiclrma	8.76	83	354312	18.2408	ug/L	98
57)	2Nitropropane	9.03	43	638439	126.3654	ug/L	96
58)	2CLEVE	9.15	63	571045	86.7965	ug/L	98
59)	c13dicloproe	9.34	75	446676	19.4033	ug/L	99
60)	4Meth2Pentan	9.54	43	2569922	178.8911	ug/L	95
62)	Toluene	9.79	92	779145	19.0389	ug/L	96
63)	t13Dicloprop	10.05	75	374297	18.9379	ug/L	95
64)	ethylmethacrylate	10.20	69	785456	36.4272	ug/L	99
65)	112Triclotha	10.29	83	226067	18.4470	ug/L	95
66)	Tetrachlorte	10.53	166	360128	21.8314	ug/L	98
67)	13Diclorpropa	10.51	76	480137	18.6091	ug/L	100
69)	2Hexanone	10.63	43	1965654	171.2406	ug/L	97
70)	Clorodibrmta	10.81	129	274557	19.5394	ug/L	99
71)	12Dibrometha	10.97	107	280459	19.0293	ug/L	98
72)	Chlorobenzen	11.65	112	829075	19.2495	ug/L	94
73)	1Clhexane	11.63	91	423305	19.2780	ug/L	99
74)	1112Tetclota	11.76	131	263023	18.7538	ug/L	98
75)	Ethylbenzene	11.82	91	1359430	18.8413	ug/L	96
76)	m p-Xylene	11.98	106	1098874	39.3878	ug/L	89
77)	o-Xylene	12.52	106	545706	19.5669	ug/L	91
78)	Styrene	12.53	104	878219	19.7670	ug/L	98
79)	Bromoform	12.77	173	172894	18.8611	ug/L	94
80)	Isopropylben	13.05	105	1326344	19.8944	ug/L	95
81)	cyclohexanone	13.13	55	546320	359.9868	ug/L	96
84)	Bromobenzene	13.46	156	349556	19.0390	ug/L	91
85)	1122Tetrclta	13.43	83	356098	17.0491	ug/L	97
86)	123Triclproa	13.49	75	445892	16.7933	ug/L	96
87)	14dichloro2butene	13.51	53	104950	15.8539	ug/L	93
88)	n-Propylbenz	13.64	91	1472613	18.5873	ug/L	93
89)	2chlorotolue	13.75	91	896894	17.8514	ug/L	94
90)	4chlorotolue	13.90	91	1034692	18.0840	ug/L	95
91)	135Trimebenz	13.89	105	1094798	19.4501	ug/L	97
92)	tbutylbenzen	14.36	119	959933	19.8577	ug/L	96
93)	124Trimetben	14.43	105	1059164	19.2442	ug/L	96
94)	sbutylbenzen	14.68	105	1298236	19.6947	ug/L	96
95)	13Diclorbenz	14.82	146	627932	19.5072	ug/L	99
96)	pIsopropylto	14.90	119	1156915	20.5458	ug/L	98
97)	14dichlorobe	14.94	146	639416	18.7484	ug/L	99
98)	12dichlorobe	15.49	146	596971	19.3199	ug/L	98
99)	nButylbenzen	15.49	91	955437	18.8407	ug/L	97
100)	12dibromo3cl	16.58	157	68783	17.7540	ug/L	88
101)	135Trichlorobenzene	16.91	180	429079	20.1997	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JAN0323\WCAL6.D Vial: 9
Acq On : 3 Jan 2023 14:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:13:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	378870	19.6883	ug/L	99
103) Hexachlorobu	17.97	225	153876	20.3828	ug/L	98
104) Naphthalene	18.02	128	859864	19.5581	ug/L	98
105) 123Trichlben	18.33	180	342520	19.5429	ug/L	99

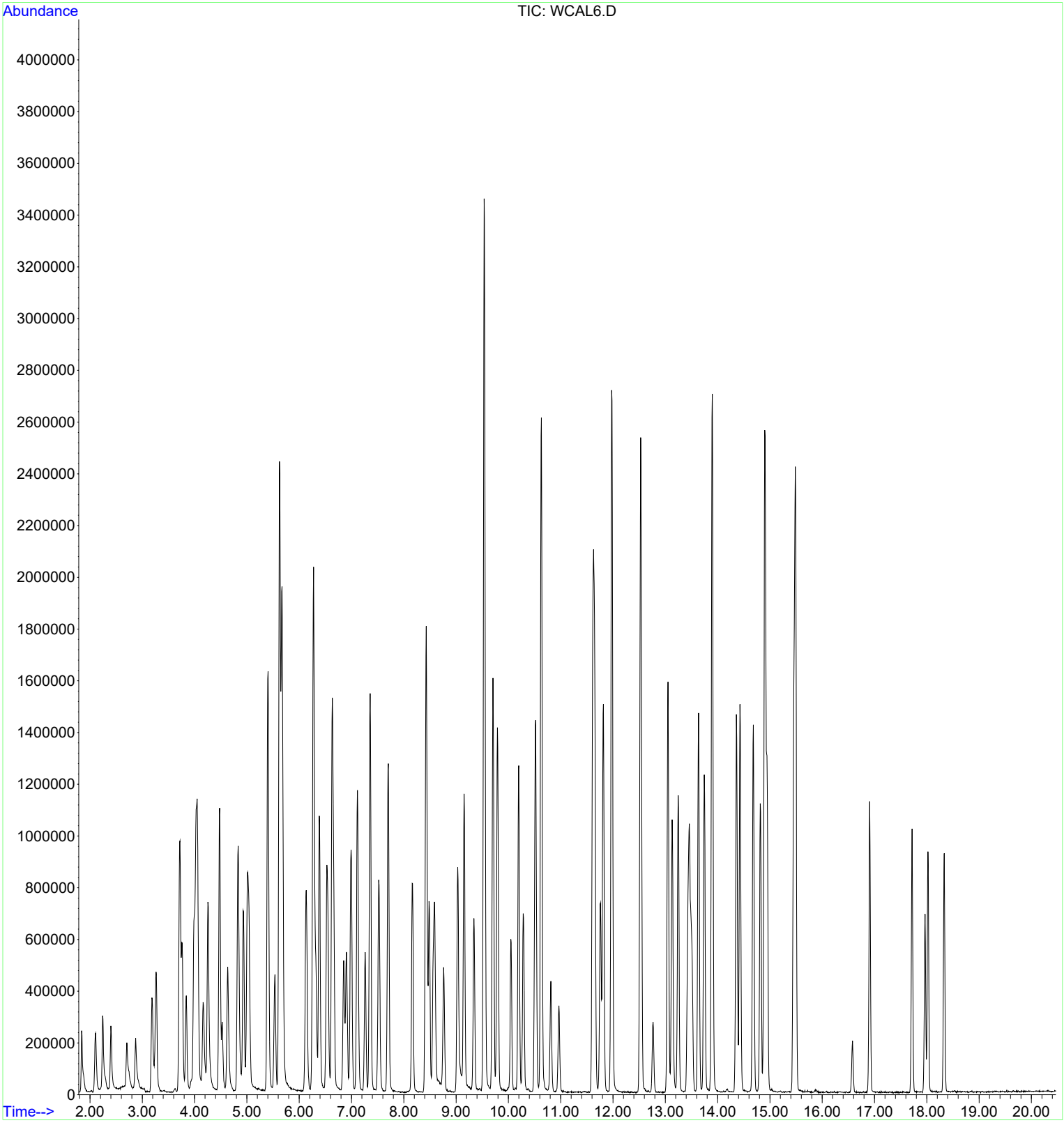
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL6.D Vial: 9
Acq On : 3 Jan 2023 14:53 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:13:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL7.D Vial: 10
Acq On : 3 Jan 2023 15:22 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:42:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1370013	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1066061	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	555197	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	357964	21.034 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105 %		
45) SURR12DCAd4	7.27	102	101150	21.271 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 106 %		
61) SURRd8Tolule	9.71	98	1362591	20.109 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	523452	18.205 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 91 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	437206	33.7252 ug/L	98
3) Chloromethan	2.11	50	478883	26.7424 ug/L	99
4) VinylChlorid	2.24	62	556566	31.0245 ug/L	98
5) Bromomethane	2.70	94	275926	25.6243 ug/L	97
6) Chloroethane	2.87	64	366792	30.0690 ug/L	99
7) Dichloroflmethane	3.18	67	828736	26.8359 ug/L	99
8) Trichlorofma	3.26	101	692900	30.0181 ug/L	99
9) Ethylether	3.71	59	388956	26.5418 ug/L	98
10) dichlorotfluoroethan	3.72	67	701550	32.1754 ug/L	97
11) propyleneoxide	3.76	58	777245	219.1213 ug/L	97
12) Acrolein	3.84	56	543546	129.7151 ug/L	97
13) 11dichlorthe	3.99	96	410080	29.0185 ug/L	98
14) Trichlorotfluoroeth	4.03	101	849399	55.4525 ug/L	97
15) Acetone	4.05	43	1513842	241.6441 ug/L	94
16) Iodomethane	4.16	142	902078	52.3835 ug/L	98
17) Carbon Dislf	4.26	76	1964809	56.3906 ug/L	99
18) allylchloride	4.48	41	1227806	52.5189 ug/L	97
19) methylacetate	4.53	74	144205	27.1371 ug/L	92
20) Methylchlorid	4.63	84	439473	25.1420 ug/L	98
21) tbutylalcohol	4.83	59	2252634	1319.5562 ug/L	96
22) Acrylonitrile	4.93	53	969030	131.0415 ug/L	99
23) t12dichlorte	5.01	96	452495	28.6191 ug/L	99
24) MtBE	5.03	73	1197894	27.6165 ug/L	99
25) Hexane	5.40	57	1421345	53.8919 ug/L	97
26) 11dichlorota	5.53	63	769067	27.0600 ug/L	98
27) Vinylacetate	5.62	43	6492056	276.0666 ug/L	90
28) chloroprene	5.67	53	1374231	56.2850 ug/L	93
29) Diisopether	5.68	45	1408240	27.4621 ug/L	98
30) ETBE	6.13	59	1221546	26.8916 ug/L	98
31) 22dichloropr	6.27	77	550278	25.1272 ug/L	98
32) c12dichlorte	6.26	96	495191	27.4674 ug/L	95
33) 2Butanone	6.28	72	689123	270.2394 ug/L	99
34) propionitrile	6.32	54	828509	265.7937 ug/L	98
35) Ethylacetate	6.38	88	121777	143.0029 ug/L #	90
36) methacrylonitrile	6.53	67	451331	54.8246 ug/L	96
37) Bromochlorma	6.55	128	241615	29.6466 ug/L	94
38) Tetrahydofur	6.63	42	1590287	263.4183 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL7.D Vial: 10
Acq On : 3 Jan 2023 15:22 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:42:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	752136	26.6857	ug/L		99
40)	111trichlota	6.90	97	653267	28.2420	ug/L		98
42)	Cyclohexane	6.99	56	841694	27.0048	ug/L		97
43)	Carbtetraclo	7.12	119	547526	28.9747	ug/L		96
44)	11dicloprope	7.11	110	240991	29.6367	ug/L		94
46)	Benzene	7.36	78	1699546	26.1999	ug/L		98
47)	12dichlorota	7.36	62	622826	26.7891	ug/L		98
48)	TAME	7.52	73	1118296	27.7411	ug/L		97
49)	trichloroete	8.17	95	469120	27.5722	ug/L		91
50)	methylcyclohexane	8.43	83	907032	27.6170	ug/L		98
51)	12dicloropra	8.42	63	483361	27.1015	ug/L		100
52)	23Dicl1propene	8.48	75	718856	27.8805	ug/L		98
53)	Dibromometha	8.56	93	289814	29.0162	ug/L		97
54)	methylmethacrylate	8.59	69	357727	27.0490	ug/L		96
55)	14dioxane	8.60	88	345035	1424.0415	ug/L		97
56)	Bromodiclrma	8.76	83	560952	27.7813	ug/L		98
57)	2Nitropropane	9.03	43	1141198	215.2724	ug/L		98
58)	2CLEVE	9.15	63	937632	137.0982	ug/L		96
59)	c13dicloproe	9.34	75	691883	28.9123	ug/L		97
60)	4Meth2Pentan	9.54	43	3816132	273.3495	ug/L		91
62)	Toluene	9.79	92	1160010	27.2679	ug/L		96
63)	t13Dicloprop	10.05	75	602112	29.3062	ug/L		95
64)	ethylmethacrylate	10.20	69	1238332	55.2470	ug/L		98
65)	112Triclotha	10.28	83	347319	27.2638	ug/L		97
66)	Tetrachlorte	10.53	166	539487	31.4611	ug/L		98
67)	13Diclorpropa	10.51	76	735799	27.4338	ug/L		98
69)	2Hexanone	10.63	43	2943316	263.5545	ug/L		93
70)	Clorodibrmta	10.81	129	454028	31.3446	ug/L		99
71)	12Dibrometha	10.97	107	441543	29.0623	ug/L		99
72)	Chlorobenzen	11.65	112	1224972	27.5902	ug/L		95
73)	1Clhexane	11.63	91	651403	28.7780	ug/L		99
74)	1112Tetclota	11.76	131	421936	29.1839	ug/L		97
75)	Ethylbenzene	11.82	91	1993400	26.8010	ug/L		94
76)	m p-Xylene	11.98	106	1639083	56.9924	ug/L	#	85
77)	o-Xylene	12.52	106	828479	28.8169	ug/L		88
78)	Styrene	12.53	104	1325176	28.9343	ug/L		99
79)	Bromoform	12.77	173	295460	31.2671	ug/L		96
80)	Isopropylben	13.05	105	1977436	28.7727	ug/L		93
81)	cyclohexanone	13.13	55	813697	520.1211	ug/L		93
84)	Bromobenzene	13.46	156	527279	27.6174	ug/L		92
85)	1122Tetrclta	13.43	83	560763	25.8182	ug/L		97
86)	123Triclproa	13.50	75	731954	26.5096	ug/L		99
87)	14dichloro2butene	13.52	53	178779	25.9708	ug/L		87
88)	n-Propylbenz	13.64	91	2180121	26.4620	ug/L		90
89)	2chlorotolue	13.75	91	1334934	25.5509	ug/L		92
90)	4chlorotolue	13.90	91	1551823	26.0819	ug/L		92
91)	135Trimebenz	13.89	105	1641669	28.0471	ug/L		96
92)	tbutylbenzen	14.37	119	1453424	28.9131	ug/L		95
93)	124Trimetben	14.43	105	1578075	27.5726	ug/L		94
94)	sbutylbenzen	14.68	105	1948873	28.4311	ug/L		94
95)	13Diclorbenz	14.82	146	938928	28.0497	ug/L		99
96)	pIsopropylto	14.90	119	1728836	29.5250	ug/L		97
97)	14dichlorobe	14.94	146	959370	27.0509	ug/L		99
98)	12dichlorobe	15.49	146	908548	28.2758	ug/L		99
99)	nButylbenzen	15.49	91	1432646	27.1674	ug/L		94
100)	12dibromo3cl	16.58	157	117511	29.1682	ug/L		99
101)	135Trichlorobenzene	16.91	180	665179	30.1135	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL7.D Vial: 10
Acq On : 3 Jan 2023 15:22 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:42:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	592561	29.6118	ug/L	98
103) Hexachlorobu	17.97	225	245814	31.3122	ug/L	98
104) Naphthalene	18.02	128	1375944	30.0962	ug/L	98
105) 123Trichlben	18.33	180	545682	29.9404	ug/L	98

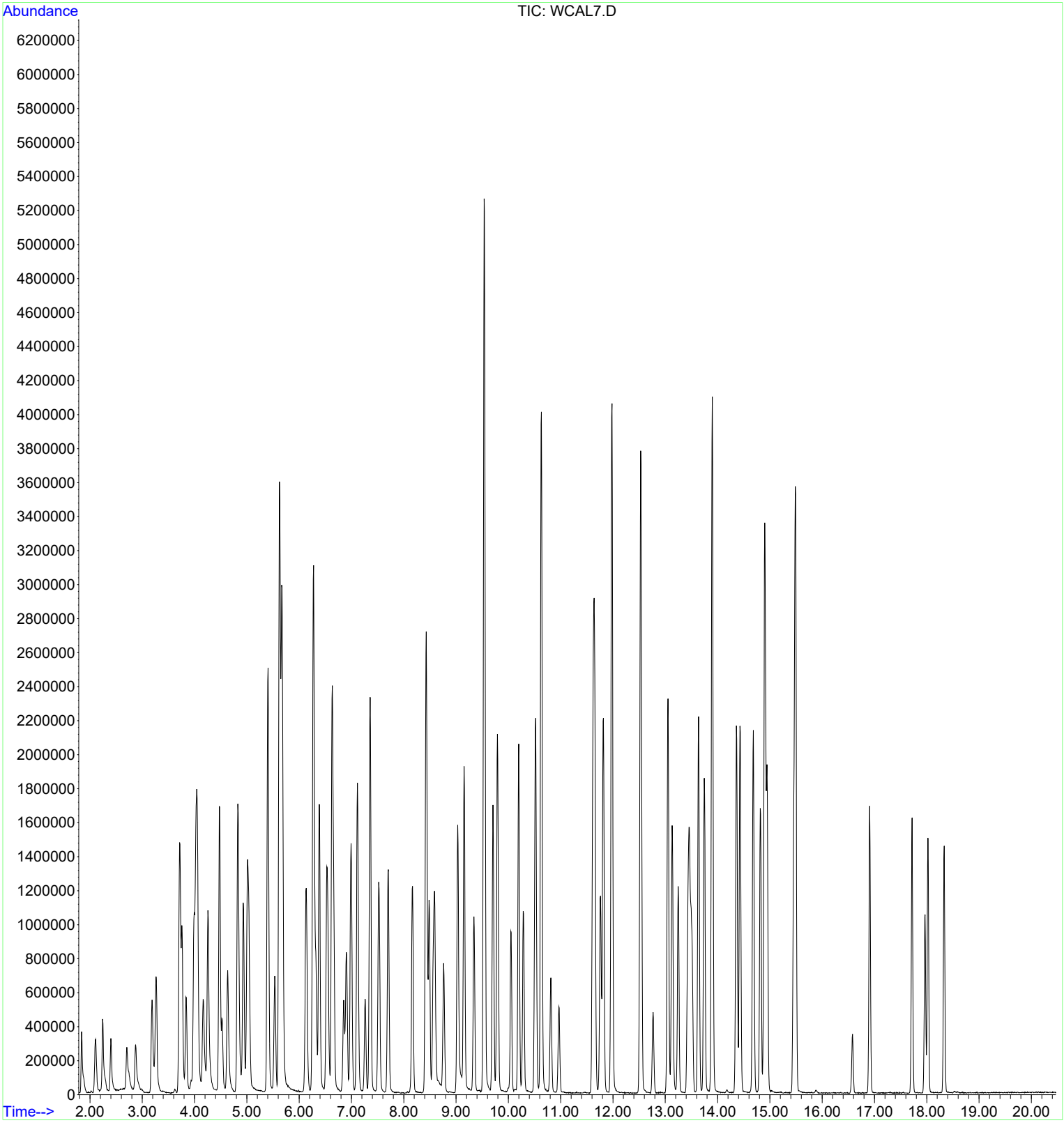
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL7.D Vial: 10
Acq On : 3 Jan 2023 15:22 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 15:42:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL8.D Vial: 11
Acq On : 3 Jan 2023 15:52 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:13:17 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1399525	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1082421	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	565607	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	361664	20.804	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104	%		
45) SURR12DCAd4	7.26	102	97800	20.133	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1393567	20.132	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	524161	17.894	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 89	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	586858	44.3145	ug/L	99
3) Chloromethan	2.11	50	649029	35.4796	ug/L	99
4) VinylChlorid	2.24	62	749607	40.9040	ug/L	100
5) Bromomethane	2.70	94	372259	33.8414	ug/L	100
6) Chloroethane	2.87	64	492554	39.5273	ug/L	99
7) Dichloroflmethane	3.18	67	1116384	35.3881	ug/L	98
8) Trichlorofma	3.26	101	934824	39.6449	ug/L	100
9) Ethylether	3.71	59	517940	34.5981	ug/L	97
10) dichlorotfluoroethan	3.72	67	933819	41.9249	ug/L	96
11) propyleneoxide	3.76	58	1032081	284.8292	ug/L	96
12) Acrolein	3.84	56	699618	163.4403	ug/L	100
13) 11dichlorthe	3.99	96	564034	39.0711	ug/L	96
14) Trichlorotfluoroeth	4.03	101	1152250	74.7971	ug/L	97
15) Acetone	4.05	43	2011873	326.7393	ug/L	93
16) Iodomethane	4.16	142	1287408	73.1831	ug/L	99
17) Carbon Dislf	4.25	76	2616204	73.5025	ug/L	97
18) allylchloride	4.47	41	1652696	69.2027	ug/L	96
19) methylacetate	4.53	74	192420	35.4468	ug/L	93
20) Methylchlorid	4.63	84	592199	33.1650	ug/L	97
21) tbutylalcohol	4.83	59	2787363	1598.3608	ug/L	96
22) Acrylonitrile	4.93	53	1244383	164.7288	ug/L	99
23) t12dichlorte	5.00	96	613995	38.0146	ug/L	99
24) MtBE	5.03	73	1593094	35.9530	ug/L	99
25) Hexane	5.40	57	1876195	71.4802	ug/L	97
26) 11dichlorota	5.53	63	1036126	35.6878	ug/L	98
27) Vinylacetate	5.62	43	7237038	310.1972	ug/L	89
28) chloroprene	5.67	53	1848260	74.1038	ug/L	93
29) Diisopether	5.68	45	1853165	35.3766	ug/L	99
30) ETBE	6.13	59	1640772	35.3590	ug/L	96
31) 22dichloropr	6.27	77	778900	34.8167	ug/L	99
32) c12dichlorte	6.26	96	674804	36.6409	ug/L	93
33) 2Butanone	6.28	72	891789	342.3403	ug/L	100
34) propionitrile	6.32	54	1034842	324.9867	ug/L	97
35) Ethylacetate	6.39	88	154076	177.1164	ug/L	92
36) methacrylonitrile	6.52	67	584209	69.4693	ug/L	96
37) Bromochlorma	6.55	128	322881	38.7827	ug/L	93
38) Tetrahydofur	6.63	42	1968434	319.1797	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL8.D Vial: 11
Acq On : 3 Jan 2023 15:52 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:13:17 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	1006482	34.9569	ug/L		98
40)	111trichlota	6.90	97	893114	37.7969	ug/L		99
42)	Cyclohexane	6.99	56	1130686	36.0602	ug/L		96
43)	Carbtetraclo	7.12	119	774711	40.1327	ug/L		96
44)	11dicloprope	7.11	110	331006	39.8482	ug/L	#	91
46)	Benzene	7.36	78	2215654	33.4359	ug/L		96
47)	12dichlorota	7.36	62	829663	34.9331	ug/L		97
48)	TAME	7.52	73	1512697	36.7336	ug/L		95
49)	trichloroete	8.17	95	650130	37.4051	ug/L		91
50)	methylcyclohexane	8.43	83	1217279	36.8536	ug/L		98
51)	12dicloropra	8.42	63	662814	36.3796	ug/L		100
52)	23Dicl1propene	8.48	75	977074	37.0963	ug/L		97
53)	Dibromometha	8.56	93	385579	37.7901	ug/L		95
54)	methylmethacrylate	8.59	69	478220	35.3974	ug/L		95
55)	14dioxane	8.60	88	420669	1699.5895	ug/L		99
56)	Bromodiclrma	8.76	83	762963	36.9892	ug/L		97
57)	2Nitropropane	9.03	43	1530745	284.0020	ug/L		98
58)	2CLEVE	9.15	63	1233227	176.5170	ug/L		96
59)	c13dicloproe	9.34	75	940207	38.4608	ug/L		96
60)	4Meth2Pentan	9.54	43	4573454	335.1040	ug/L		88
62)	Toluene	9.79	92	1541222	35.4650	ug/L		94
63)	t13Dicloprop	10.05	75	840509	40.0469	ug/L		97
64)	ethylmethacrylate	10.20	69	1650712	72.0920	ug/L		98
65)	112Triclotha	10.29	83	462938	35.5733	ug/L		95
66)	Tetrachlorte	10.53	166	739574	42.2201	ug/L		99
67)	13Diclorpropa	10.51	76	970728	35.4298	ug/L		98
69)	2Hexanone	10.63	43	3582260	328.9045	ug/L		90
70)	Clorodibrmta	10.81	129	609039	41.4106	ug/L		97
71)	12Dibrometha	10.97	107	577249	37.4201	ug/L		97
72)	Chlorobenzen	11.65	112	1620977	35.9576	ug/L		95
73)	1Clhexane	11.63	91	878046	38.2045	ug/L		97
74)	1112Tetclota	11.76	131	592422	40.3566	ug/L		98
75)	Ethylbenzene	11.82	91	2586321	34.2472	ug/L		92
76)	m p-Xylene	11.98	106	2178417	74.6007	ug/L	#	81
77)	o-Xylene	12.52	106	1121114	38.4062	ug/L	#	84
78)	Styrene	12.53	104	1748675	37.6040	ug/L		99
79)	Bromoform	12.77	173	402008	41.8996	ug/L		97
80)	Isopropylben	13.05	105	2567161	36.7889	ug/L		91
81)	cyclohexanone	13.13	55	1125561	708.5927	ug/L		92
84)	Bromobenzene	13.46	156	718689	36.9501	ug/L		91
85)	1122Tetrclta	13.43	83	716221	32.3687	ug/L		98
86)	123Triclproa	13.50	75	965274	34.3165	ug/L		100
87)	14dichloro2butene	13.52	53	238033	33.9421	ug/L		86
88)	n-Propylbenz	13.64	91	2815313	33.5430	ug/L		88
89)	2chlorotolue	13.75	91	1742746	32.7426	ug/L		90
90)	4chlorotolue	13.90	91	2026641	33.4354	ug/L		91
91)	135Trimebenz	13.89	105	2158469	36.1977	ug/L		94
92)	tbutylbenzen	14.36	119	1955042	38.1760	ug/L		95
93)	124Trimetben	14.43	105	2091777	35.8755	ug/L		93
94)	sbutylbenzen	14.68	105	2557159	36.6185	ug/L		92
95)	13Diclorbenz	14.82	146	1267261	37.1616	ug/L		99
96)	pIsopropylto	14.90	119	2280538	38.2301	ug/L		95
97)	14dichlorobe	14.95	146	1284042	35.5391	ug/L		99
98)	12dichlorobe	15.49	146	1208234	36.9105	ug/L		99
99)	nButylbenzen	15.49	91	1913371	35.6156	ug/L		94
100)	12dibromo3cl	16.58	157	160603	39.1306	ug/L		96
101)	135Trichlorobenzene	16.91	180	883445	39.2586	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL8.D Vial: 11
Acq On : 3 Jan 2023 15:52 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:13:17 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	792178	38.8586	ug/L	99
103) Hexachlorobu	17.97	225	331646	41.4681	ug/L	97
104) Naphthalene	18.02	128	1727418	37.0886	ug/L	97
105) 123Trichlben	18.33	180	717738	38.6559	ug/L	99

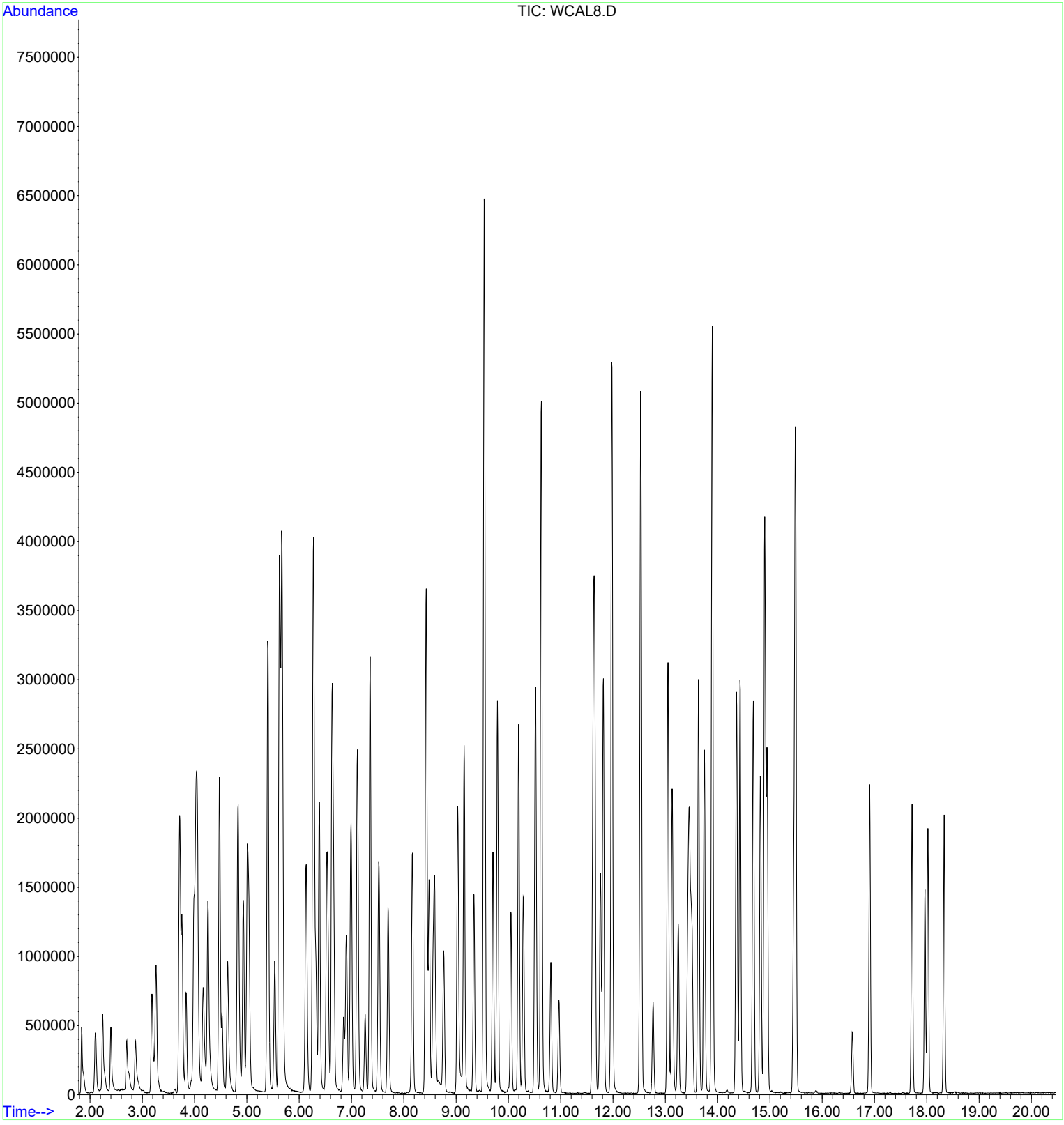
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL8.D Vial: 11
Acq On : 3 Jan 2023 15:52 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:13:17 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL9.D Vial: 12
Acq On : 3 Jan 2023 16:21 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:41:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1404351	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1099632	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	597911	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	370623	21.246	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 106	%		
45) SURR12DCAd4	7.26	102	103985	21.333	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 107	%		
61) SURRd8Tolule	9.71	98	1424808	20.513	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	545802	17.626	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 88	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	1171711	88.1736	ug/L	99
3) Chloromethan	2.11	50	1250524	68.1259	ug/L	98
4) VinylChlorid	2.25	62	1448643	78.7768	ug/L	97
5) Bromomethane	2.70	94	724068	65.5975	ug/L	96
6) Chloroethane	2.87	64	978327	78.2406	ug/L	100
7) Dichloroflmethane	3.18	67	2161759	68.2899	ug/L	96
8) Trichlorofma	3.26	101	1768329	74.7352	ug/L	99
9) Ethylether	3.71	59	1031151	68.6437	ug/L	98
10) dichlorotfluoroethan	3.72	67	1812190	81.0808	ug/L	95
11) propyleneoxide	3.76	58	2198793	604.7279	ug/L	98
12) Acrolein	3.84	56	1436044	334.3267	ug/L	99
13) 11dichlorthe	3.99	96	1142749	78.8871	ug/L	93
14) Trichlorotfluoroeth	4.02	101	2238351	156.4277	ug/L	95
15) Acetone	4.05	43	3899744	792.5086	ug/L	91
16) Iodomethane	4.16	142	2583031	146.3285	ug/L	96
17) Carbon Dislf	4.25	76	4933728	138.1373	ug/L	94
18) allylchloride	4.48	41	3078186	128.4488	ug/L	95
19) methylacetate	4.52	74	433054	79.5013	ug/L	95
20) Methylchlorid	4.63	84	1169115	65.2490	ug/L	95
21) tbutylalcohol	4.83	59	5672605	3241.6702	ug/L	99
22) Acrylonitrile	4.93	53	2447364	322.8636	ug/L	97
23) t12dichlorte	5.00	96	1229897	75.8857	ug/L	96
24) MtBE	5.03	73	3068980	69.0229	ug/L	96
25) Hexane	5.40	57	3502391	153.4604	ug/L #	92
26) 11dichlorota	5.53	63	1978829	67.9236	ug/L	95
27) Vinylacetate	5.62	43	9618911	475.5707	ug/L	85
28) chloroprene	5.67	53	3440932	137.4859	ug/L	88
29) Diisopether	5.68	45	3428430	65.2231	ug/L	89
30) ETBE	6.13	59	3112316	66.8405	ug/L	93
31) 22dichloropr	6.27	77	1605923	71.5378	ug/L	96
32) c12dichlorte	6.26	96	1307001	70.7244	ug/L	94
33) 2Butanone	6.28	72	1849156	707.4153	ug/L	98
34) propionitrile	6.32	54	2134149	667.9151	ug/L	95
35) Ethylacetate	6.38	88	339808	389.2802	ug/L #	86
36) methacrylonitrile	6.53	67	1199976	142.2008	ug/L	95
37) Bromochlorma	6.55	128	637809	76.3469	ug/L	91
38) Tetrahydofur	6.63	42	3784594	611.5596	ug/L	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL9.D Vial: 12
Acq On : 3 Jan 2023 16:21 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:41:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	1944875	67.3168	ug/L		97
40)	111trichlota	6.90	97	1788406	75.4259	ug/L		100
42)	Cyclohexane	6.99	56	2182219	75.0752	ug/L		94
43)	Carbtetraclo	7.12	119	1597697	82.4818	ug/L		93
44)	11dicloprope	7.11	110	678178	81.3620	ug/L	#	86
46)	Benzene	7.36	78	3945585	59.3373	ug/L		91
47)	12dichlorota	7.36	62	1610244	67.5665	ug/L		95
48)	TAME	7.52	73	2900723	70.1977	ug/L		94
49)	trichloroete	8.16	95	1319060	75.6312	ug/L		90
50)	methylcyclohexane	8.43	83	2345773	76.8792	ug/L		98
51)	12dicloropra	8.42	63	1282904	70.1722	ug/L		97
52)	23Dicl1propene	8.48	75	1878399	71.0716	ug/L		95
53)	Dibromometha	8.56	93	776939	75.8851	ug/L		96
54)	methylmethacrylate	8.59	69	993464	73.2826	ug/L		94
55)	14dioxane	8.60	88	922469	3714.1573	ug/L		97
56)	Bromodiclrma	8.76	83	1508590	72.8865	ug/L		96
57)	2Nitropropane	9.03	43	3273386	642.3556	ug/L		97
58)	2CLEVE	9.15	63	2474178	352.9225	ug/L		92
59)	c13dicloproe	9.34	75	1845491	75.2336	ug/L		93
60)	4Meth2Pentan	9.54	43	7444716	819.7510	ug/L		76
62)	Toluene	9.79	92	2904364	66.6025	ug/L		87
63)	t13Dicloprop	10.05	75	1654576	78.5630	ug/L		92
64)	ethylmethacrylate	10.20	69	3071074	133.6630	ug/L		92
65)	112Triclotha	10.28	83	920323	70.4769	ug/L		95
66)	Tetrachlorte	10.52	166	1466224	83.4147	ug/L		97
67)	13Diclorpropa	10.51	76	1852533	67.3818	ug/L		94
69)	2Hexanone	10.63	43	6118386	725.1819	ug/L		82
70)	Clorodibrmta	10.81	129	1288000	86.2048	ug/L		98
71)	12Dibrometha	10.97	107	1163039	74.2139	ug/L		97
72)	Chlorobenzen	11.65	112	3031638	66.1973	ug/L		94
73)	1Clhexane	11.63	91	1736922	74.3920	ug/L		96
74)	1112Tetclota	11.76	131	1199785	80.4517	ug/L		99
75)	Ethylbenzene	11.82	91	4536982	59.1370	ug/L		85
76)	m p-Xylene	11.98	106	3954117	133.2908	ug/L	#	72
77)	o-Xylene	12.52	106	2135388	72.0074	ug/L	#	78
78)	Styrene	12.54	104	3263510	69.0811	ug/L		96
79)	Bromoform	12.77	173	880917	90.3773	ug/L		99
80)	Isopropylben	13.05	105	4524854	63.8289	ug/L		85
81)	cyclohexanone	13.13	55	2381513	1475.8066	ug/L		88
84)	Bromobenzene	13.46	156	1407575	68.4581	ug/L	#	89
85)	1122Tetrclta	13.43	83	1370919	58.6096	ug/L		96
86)	123Triclproa	13.49	75	1992956	67.0237	ug/L		98
87)	14dichloro2butene	13.51	53	506007	68.2553	ug/L		78
88)	n-Propylbenz	13.64	91	4875265	54.9479	ug/L		80
89)	2chlorotolue	13.75	91	3229817	57.4030	ug/L		86
90)	4chlorotolue	13.90	91	3713959	57.9622	ug/L		86
91)	135Trimebenz	13.89	105	3903436	61.9242	ug/L		89
92)	tbutylbenzen	14.36	119	3530215	65.2100	ug/L		96
93)	124Trimetben	14.43	105	3798058	61.6201	ug/L		88
94)	sbutylbenzen	14.68	105	4531180	61.3808	ug/L		85
95)	13Diclorbenz	14.82	146	2437791	67.6244	ug/L		96
96)	pIsopropylto	14.90	119	4112886	65.2218	ug/L		89
97)	14dichlorobe	14.95	146	2476643	64.8439	ug/L		97
98)	12dichlorobe	15.49	146	2294971	66.3215	ug/L		96
99)	nButylbenzen	15.49	91	3539920	62.3322	ug/L		89
100)	12dibromo3cl	16.58	157	372527	85.8615	ug/L		94
101)	135Trichlorobenzene	16.91	180	1722623	72.4142	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL9.D Vial: 12
Acq On : 3 Jan 2023 16:21 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:41:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	1560509	72.4117	ug/L	98
103) Hexachlorobu	17.97	225	703534	83.2151	ug/L	98
104) Naphthalene	18.02	128	3397190	68.9987	ug/L	95
105) 123Trichlben	18.33	180	1442122	73.4734	ug/L	99

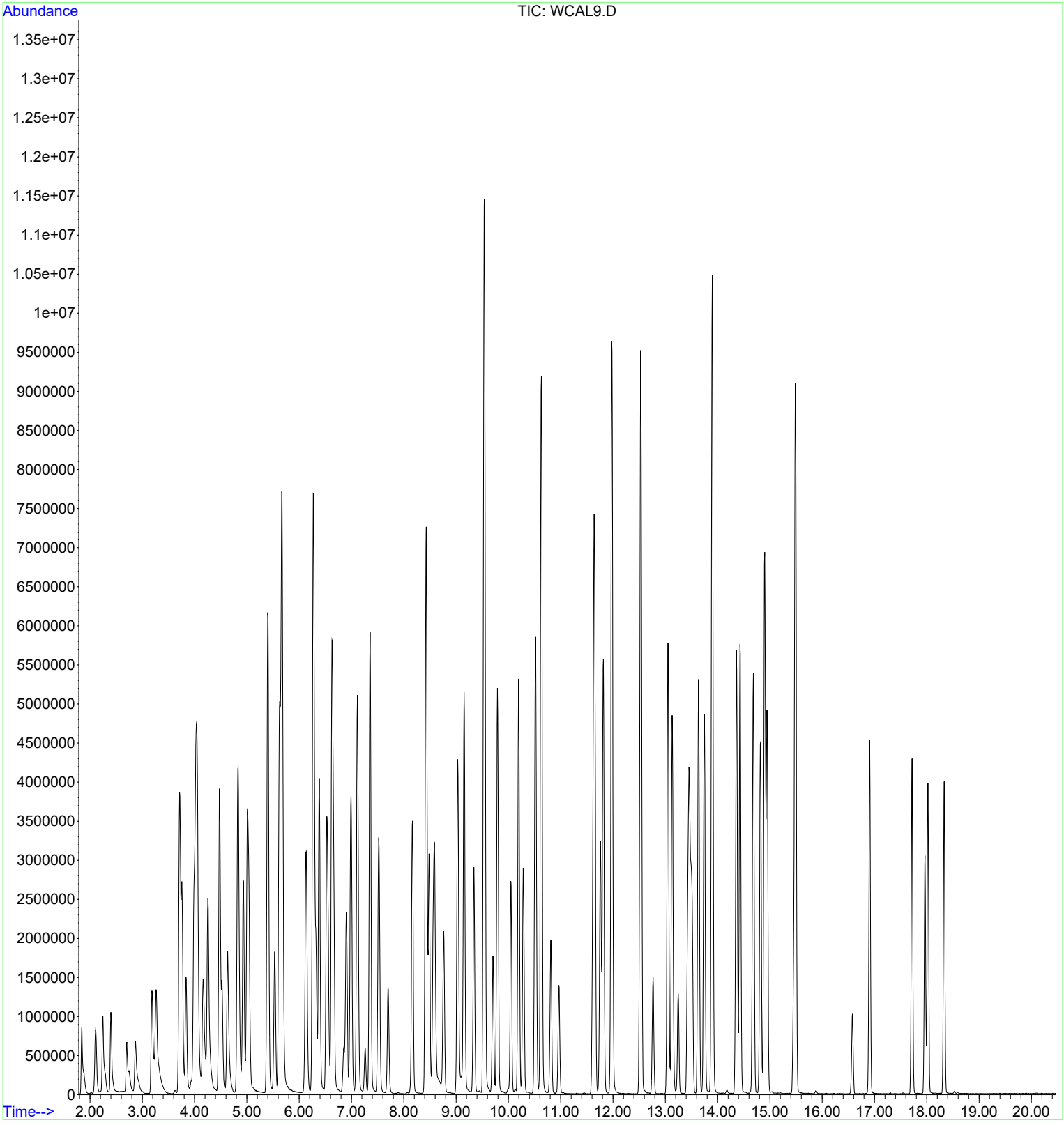
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\WCAL9.D Vial: 12
Acq On : 3 Jan 2023 16:21 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 16:41:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JAN0323\ICV1.D Vial: 14
Acq On : 3 Jan 2023 17:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jan 04 07:24:02 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	101	0.00
2	PT	Dichlorodi	0.2122	0.2287	-7.78	105	0.00
3	PT	Chloromethan	0.2555	0.2614	-2.31	106	0.00
4	PT	VinylChlorid	0.2807	0.2955	-5.27	103	0.00
5	PT	Bromomethane	0.1479	0.1687	-14.06	120	0.00
6	PT	Chloroethane	0.1866	0.1967	-5.41	105	0.00
7	T	Dichloroflmethane	0.4358	0.4290	1.56	104	0.00
8	PT	Trichlorofma	0.3300	0.3604	-9.21	105	0.00
9	T	Ethylether	0.1971	0.2017	-2.33	111	0.00
10	T	dichlorotfluoroethan	0.3441	0.3147	8.54	89	0.00
11	T	propyleneoxide	0.0351	0.0340	3.13	98	0.00
12	T	Acrolein	0.0544	0.0538	1.10	99	0.00
13	PT	11dichlorthe	0.2034	0.2127	-4.57	103	0.00
14	PT	Trichlorotfluoroeth	0.2029	0.1977	2.56	93	0.00
15	PT	Acetone	0.0844	0.0773#	8.41	95	0.00
16	T	Iodomethane	0.1776	0.1780	-0.23	103	0.00
17	PT	Carbon Dislf	0.4944	0.4853	1.84	98	0.00
18	T	allylchloride	0.2956	0.3145	-6.39	108	0.00
19	PT	methylacetate	0.0708	0.0805#	-13.70	122	0.00
20	PT	Methylchlorid	0.2466	0.2347	4.83	108	0.00
21	T	tbutylalcohol	0.0188	0.0212#	-12.77	113	0.00
22	T	Acrylonitrile	0.0968	0.0938	3.10	93	0.00
23	PT	t12dichlorte	0.2245	0.2337	-4.10	107	0.00
24	PT	MtBE	0.5809	0.6145	-5.78	109	0.00
25	T	Hexane	0.3303	0.3365	-1.88	93	0.00
26	PT	11dichlorota	0.3827	0.4033	-5.38	110	0.00
27	T	Vinylacetate	0.3287	0.3984	-21.20#	106	0.00
28	T	chloroprene	0.3362	0.3394	-0.95	100	0.00
29	T	Diisopether	0.6803	0.7170	-5.39	115	0.00
30	T	ETBE	0.5622	0.6231	-10.83	113	0.00
31	T	22dichloropr	0.2341	0.2655	-13.41	118	0.00
32	PT	c12dichlorte	0.2503	0.2646	-5.71	113	0.00
33	PT	2Butanone	0.0337	0.0329#	2.37	97	0.00
34	T	propionitrile	0.0414	0.0395	4.59	94	0.00
35	T	Ethylacetate	0.0108	0.0114#	-5.56	109	0.00
36	T	methacrylonitrile	0.1094	0.1087	0.64	102	0.00
37	T	Bromochlorma	0.1209	0.1314	-8.68	113	0.00
38	T	Tetrahydofur	0.0819	0.0785	4.15	93	0.00
39	PT	Chloroform	0.3831	0.3909	-2.04	107	0.00
40	PT	111trichlota	0.2911	0.3294	-13.16	115	0.00
41	S	SURRDibrflma	0.2565	0.2566	-0.04	101	0.00
42	PT	Cyclohexane	0.3862	0.3887	-0.65	93	0.00
43	PT	Carbtetraclo	0.2299	0.2648	-15.18	120	0.00
44	T	11dicloprope	0.1145	0.1262	-10.22	111	0.00
45	S	SURR12DCAd4	0.0725	0.0727	-0.28	102	0.00
46	PT	Benzene	0.8799	0.9436	-7.24	109	0.00
47	PT	12dichlorota	0.3208	0.3312	-3.24	109	0.00
48	T	TAME	0.5059	0.5723	-13.13	115	0.00

49	PT	trichloroete	0.2403	0.2491	-3.66	110	0.00
50	PT	methylcyclohexane	0.4125	0.4163	-0.92	94	0.00
51	PT	12dicloropra	0.2377	0.2517	-5.89	108	0.00
52	T	23Dicl1propene	0.3400	0.3602	-5.94	108	0.00
53	T	Dibromometha	0.1418	0.1482	-4.51	110	0.00
54	T	methylmethacrylate	0.1586	0.1765	-11.29	108	0.00
55	T	14dioxane	0.0034	0.0033#	2.94	101	0.00
56	PT	Bromodiclrma	0.2609	0.2882	-10.46	120	0.00
57	T	2Nitropropane	0.0461	0.0436	5.42	101	0.00
58	T	2CLEVE	0.0822	0.0920	-11.92	108	0.00
59	PT	c13dicloproe	0.3098	0.3495	-12.81	112	0.00
60	PT	4Meth2Pentan	0.2111	0.2147	-1.71	99	0.00
61	S	SURRd8Tolule	0.9959	0.9893	0.66	101	0.00
62	PT	Toluene	0.5927	0.6305	-6.38	108	0.00
63	PT	t13Dicloprop	0.2492	0.2975	-19.38	122	0.00
64	T	ethylmethacrylate	0.2665	0.3038	-14.00	110	0.00
65	PT	112Triclotha	0.1703	0.1816	-6.64	108	0.00
66	PT	Tetrachlorte	0.2685	0.2823	-5.14	111	0.00
67	T	13Diclorpropa	0.3695	0.3894	-5.39	108	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	101	0.00
69	PT	2Hexanone	0.1910	0.2060	-7.85	97	0.00
70	PT	Clorodibrmta	0.2418	0.2807	-16.09	121	0.00
71	PT	12Dibrometha	0.2399	0.2879	-20.01#	118	0.00
72	PT	Chlorobenzen	0.8234	0.8757	-6.35	110	0.00
73	T	1Clhexane	0.4146	0.4062	2.03	100	0.00
74	T	1112Tetclota	0.2312	0.2666	-15.31	124	0.00
75	PT	Ethylbenzene	1.3099	1.4173	-8.20	107	0.00
76	PT	m p-Xylene	0.5344	0.5816	-8.83	109	0.00
77	PT	o-Xylene	0.5310	0.5815	-9.51	111	0.00
78	PT	Styrene	0.8366	0.9214	-10.14	111	0.00
79	PT	Bromoform	0.1556	0.1713	-10.09	122	0.00
80	PT	Isopropylben	1.2642	1.3931	-10.20	106	0.00
81	T	cyclohexanone	0.0251	0.0234#	6.77	90	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	101	0.00
83	S	SURR4BrFBenz	0.9449	0.9580	-1.39	102	0.00
84	T	Bromobenzene	0.6599	0.7161	-8.52	111	0.00
85	PT	1122Tetrclta	0.6908	0.7483	-8.32	109	0.00
86	T	123Triclproa	0.8461	0.8980	-6.13	106	0.00
87	T	14dichloro2butene	0.2018	0.1997	1.04	103	0.00
88	T	n-Propylbenz	2.7848	3.0518	-9.59	104	0.00
89	T	2chlorotolue	1.6966	1.8512	-9.11	110	0.00
90	T	4chlorotolue	1.9774	2.1404	-8.24	108	0.00
91	T	135Trimebenz	2.0303	2.2130	-9.00	105	0.00
92	T	tbutylbenzen	1.8382	1.9669	-7.00	108	0.00
93	T	124Trimetben	1.9672	2.1595	-9.78	107	0.00
94	T	sbutylbenzen	2.3902	2.6447	-10.65	106	0.00
95	PT	13Diclorbenz	1.1929	1.2777	-7.11	110	0.00
96	T	pIsopropylto	2.0953	2.2921	-9.39	104	0.00
97	PT	14dichlorobe	1.2331	1.3096	-6.20	111	0.00
98	PT	12dichlorobe	1.1674	1.2319	-5.53	109	0.00
99	T	nButylbenzen	1.7537	1.9114	-8.99	105	0.00
100	PT	12dibromo3cl	0.1166	0.1307	-12.09	123	0.00
101	T	135Trichlorobenzene	0.8108	0.8542	-5.35	108	0.00
102	PT	124Trichlobe	0.7102	0.7639	-7.56	110	0.00
103	T	Hexachlorobu	0.2885	0.3118	-8.08	105	0.00
104	T	Naphthalene	1.5622	1.7921	-14.72	112	0.00
105	T	123Trichlben	0.6465	0.6951	-7.52	110	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W010323.M Wed Jan 04 07:29:45 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JAN0323\ICV1.D Vial: 14
Acq On : 3 Jan 2023 17:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jan 04 07:24:02 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00
2	PT	Dichlorodi	10.0000	10.7770	-7.77	105	0.00
3	PT	Chloromethan	10.0000	10.2294	-2.29	106	0.00
4	PT	VinylChlorid	10.0000	10.5264	-5.26	103	0.00
5	PT	Bromomethane	10.0000	11.4054	-14.05	120	0.00
6	PT	Chloroethane	10.0000	10.5451	-5.45	105	0.00
7	T	Dichloroflmethane	10.0000	9.8433	1.57	104	0.00
8	PT	Trichlorofma	10.0000	10.9221	-9.22	105	0.00
9	T	Ethylether	10.0000	10.2310	-2.31	111	0.00
10	T	dichlorotfluoroethan	10.0000	9.1451	8.55	89	0.00
11	T	propyleneoxide	100.0000	96.8528	3.15	98	0.00
12	T	Acrolein	50.0000	49.4396	1.12	99	0.00
13	PT	11dichlorthe	10.0000	10.4601	-4.60	103	0.00
14	PT	Trichlorotfluoroeth	20.0000	19.4807	2.60	93	0.00
15	PT	Acetone	100.0000	98.3149	1.69	95	0.00
16	T	Iodomethane	20.0000	18.2317	8.84	103	0.00
17	PT	Carbon Dislf	20.0000	19.6314	1.84	98	0.00
18	T	allylchloride	20.0000	21.2802	-6.40	108	0.00
19	PT	methylacetate	10.0000	11.3562	-13.56	122	0.00
20	PT	Methylchlorid	10.0000	10.6226	-6.23	108	0.00
21	T	tbutylalcohol	500.0000	564.4060	-12.88	113	0.00
22	T	Acrylonitrile	50.0000	48.4287	3.14	93	0.00
23	PT	t12dichlorte	10.0000	10.4080	-4.08	107	0.00
24	PT	MtBE	10.0000	10.5796	-5.80	109	0.00
25	T	Hexane	20.0000	20.3746	-1.87	93	0.00
26	PT	11dichlorota	10.0000	10.5371	-5.37	110	0.00
27	T	Vinylacetate	100.0000	112.7214	-12.72	106	0.00
28	T	chloroprene	20.0000	20.1858	-0.93	100	0.00
29	T	Diisopether	10.0000	10.5399	-5.40	115	0.00
30	T	ETBE	10.0000	11.0825	-10.82	113	0.00
31	T	22dichloropr	10.0000	10.5802	-5.80	118	0.00
32	PT	c12dichlorte	10.0000	10.5715	-5.72	113	0.00
33	PT	2Butanone	100.0000	97.5603	2.44	97	0.00
34	T	propionitrile	100.0000	95.2141	4.79	94	0.00
35	T	Ethylacetate	50.0000	52.9985	-6.00	109	0.00
36	T	methacrylonitrile	20.0000	19.8854	0.57	102	0.00
37	T	Bromochlorma	10.0000	10.8713	-8.71	113	0.00
38	T	Tetrahydofur	100.0000	95.8153	4.18	93	0.00
39	PT	Chloroform	10.0000	10.2035	-2.04	107	0.00
40	PT	111trichlota	10.0000	11.3170	-13.17	115	0.00
41	S	SURRDibrflma	20.0000	20.0122	-0.06	101	0.00
42	PT	Cyclohexane	10.0000	10.0661	-0.66	93	0.00
43	PT	Carbtetraclo	10.0000	10.6767	-6.77	120	0.00
44	T	11dicloprope	10.0000	11.0212	-10.21	111	0.00
45	S	SURR12DCAd4	20.0000	20.0307	-0.15	102	0.00
46	PT	Benzene	10.0000	10.7247	-7.25	109	0.00
47	PT	12dichlorota	10.0000	10.3229	-3.24	109	0.00
48	T	TAME	10.0000	11.3122	-13.12	115	0.00

49	PT	trichloroete	10.0000	10.3661	-3.66	110	0.00
50	PT	methylcyclohexane	10.0000	10.0908	-0.91	94	0.00
51	PT	12dicloropra	10.0000	10.5878	-5.88	108	0.00
52	T	23Dicl1propene	10.0000	10.5935	-5.94	108	0.00
53	T	Dibromometha	10.0000	10.4507	-4.51	110	0.00
54	T	methylmethacrylate	10.0000	11.1315	-11.32	108	0.00
55	T	14dioxane	500.0000	492.5058	1.50	101	0.00
56	PT	Bromodiclrma	10.0000	11.0480	-10.48	120	0.00
57	T	2Nitropropane	100.0000	90.2978	9.70	101	0.00
58	T	2CLEVE	50.0000	55.9761	-11.95	108	0.00
59	PT	c13dicloproe	10.0000	11.2804	-12.80	112	0.00
60	PT	4Meth2Pentan	100.0000	101.7091	-1.71	99	0.00
61	S	SURRd8Tolule	20.0000	19.8664	0.67	101	0.00
62	PT	Toluene	10.0000	10.6392	-6.39	108	0.00
63	PT	t13Dicloprop	10.0000	10.6668	-6.67	122	0.00
64	T	ethylmethacrylate	20.0000	22.8020	-14.01	110	0.00
65	PT	112Triclotha	10.0000	10.6637	-6.64	108	0.00
66	PT	Tetrachlorte	10.0000	10.5120	-5.12	111	0.00
67	T	13Diclorpropa	10.0000	10.5394	-5.39	108	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00
69	PT	2Hexanone	100.0000	107.8943	-7.89	97	0.00
70	PT	Clorodibrmta	10.0000	10.7286	-7.29	121	0.00
71	PT	12Dibrometha	10.0000	10.8669	-8.67	118	0.00
72	PT	Chlorobenzen	10.0000	10.6359	-6.36	110	0.00
73	T	1Clhexane	10.0000	9.7970	2.03	100	0.00
74	T	1112Tetclota	10.0000	10.7732	-7.73	124	0.00
75	PT	Ethylbenzene	10.0000	10.8206	-8.21	107	0.00
76	PT	m p-Xylene	20.0000	21.7642	-8.82	109	0.00
77	PT	o-Xylene	10.0000	10.9505	-9.50	111	0.00
78	PT	Styrene	10.0000	11.0134	-10.13	111	0.00
79	PT	Bromoform	10.0000	10.5718	-5.72	122	0.00
80	PT	Isopropylben	10.0000	11.0199	-10.20	106	0.00
81	T	cyclohexanone	200.0000	186.0354	6.98	90	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	101	0.00
83	S	SURR4BrFBenz	20.0000	20.2754	-1.38	102	0.00
84	T	Bromobenzene	10.0000	10.8506	-8.51	111	0.00
85	PT	1122Tetrclta	10.0000	10.8329	-8.33	109	0.00
86	T	123Triclproa	10.0000	10.6139	-6.14	106	0.00
87	T	14dichloro2butene	10.0000	9.8975	1.02	103	0.00
88	T	n-Propylbenz	10.0000	10.9591	-9.59	104	0.00
89	T	2chlorotolue	10.0000	10.9116	-9.12	110	0.00
90	T	4chlorotolue	10.0000	10.8241	-8.24	108	0.00
91	T	135Trimebenz	10.0000	10.8994	-8.99	105	0.00
92	T	tbutylbenzen	10.0000	10.7003	-7.00	108	0.00
93	T	124Trimetben	10.0000	10.9778	-9.78	107	0.00
94	T	sbutylbenzen	10.0000	11.0647	-10.65	106	0.00
95	PT	13Diclorbenz	10.0000	10.7114	-7.11	110	0.00
96	T	pIsopropylto	10.0000	10.9395	-9.40	104	0.00
97	PT	14dichlorobe	10.0000	10.6201	-6.20	111	0.00
98	PT	12dichlorobe	10.0000	10.5524	-5.52	109	0.00
99	T	nButylbenzen	10.0000	10.8990	-8.99	105	0.00
100	PT	12dibromo3cl	10.0000	10.6968	-6.97	123	0.00
101	T	135Trichlorobenzene	10.0000	10.5348	-5.35	108	0.00
102	PT	124Trichlobe	10.0000	10.7551	-7.55	110	0.00
103	T	Hexachlorobu	10.0000	10.8074	-8.07	105	0.00
104	T	Naphthalene	10.0000	11.4720	-14.72	112	0.00
105	T	123Trichlben	10.0000	10.7518	-7.52	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W010323.M Wed Jan 04 07:30:10 2023

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV1.D Vial: 14
Acq On : 3 Jan 2023 17:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1324981	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1031760	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	522052	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	340025	20.012	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	96261	20.031	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.71	98	1310760	19.866	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99	%		
83) SURR4BrFBenz	13.25	95	500101	20.275	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	151530	10.7770	ug/L	99
3) Chloromethan	2.11	50	173174	10.2294	ug/L	100
4) VinylChlorid	2.24	62	195754	10.5264	ug/L	99
5) Bromomethane	2.71	94	111786	11.4054	ug/L	98
6) Chloroethane	2.87	64	130328	10.5451	ug/L	99
7) Dichloroflmethane	3.18	67	284187	9.8433	ug/L	100
8) Trichlorofma	3.26	101	238782	10.9221	ug/L	97
9) Ethylether	3.71	59	133595	10.2310	ug/L	95
10) dichlorotfluoroethan	3.72	67	208489	9.1451	ug/L	98
11) propyleneoxide	3.76	58	225523	96.8528	ug/L	97
12) Acrolein	3.84	56	178236	49.4396	ug/L	98
13) 11dichlorthe	3.99	96	140944	10.4601	ug/L	98
14) Trichlorotfluoroeth	4.03	101	261910	19.4807	ug/L	99
15) Acetone	4.05	43	511780	98.3149	ug/L	100
16) Iodomethane	4.16	142	235801	18.2317	ug/L	99
17) Carbon Dislf	4.26	76	642953	19.6314	ug/L	99
18) allylchloride	4.48	41	416705	21.2802	ug/L	99
19) methylacetate	4.53	74	53300	11.3562	ug/L	97
20) Methylchlorid	4.63	84	155506	10.6226	ug/L	97
21) tbutylalcohol	4.83	59	703680	564.4060	ug/L	98
22) Acrylonitrile	4.93	53	310652	48.4287	ug/L	98
23) t12dichlorte	5.00	96	154821	10.4080	ug/L	98
24) MtBE	5.03	73	407115	10.5796	ug/L	99
25) Hexane	5.40	57	445874	20.3746	ug/L	99
26) 11dichlorota	5.53	63	267170	10.5371	ug/L	99
27) Vinylacetate	5.62	43	2639291	112.7214	ug/L	99
28) chloroprene	5.67	53	449652	20.1858	ug/L	99
29) Diisopether	5.68	45	475005	10.5399	ug/L	89
30) ETBE	6.13	59	412778	11.0825	ug/L	97
31) 22dichloropr	6.27	77	175887	10.5802	ug/L	98
32) c12dichlorte	6.26	96	175324	10.5715	ug/L	94
33) 2Butanone	6.28	72	218062	97.5603	ug/L	99
34) propionitrile	6.32	54	261421	95.2141	ug/L	98
35) Ethylacetate	6.39	88	37795	52.9985	ug/L	92
36) methacrylonitrile	6.53	67	144070	19.8854	ug/L	97
37) Bromochlorma	6.55	128	87080	10.8713	ug/L	92
38) Tetrahydofur	6.63	42	520149	95.8153	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV1.D Vial: 14
Acq On : 3 Jan 2023 17:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	258939	10.2035	ug/L		97
40)	111trichlota	6.90	97	218245	11.3170	ug/L		98
42)	Cyclohexane	6.99	56	257543	10.0661	ug/L		96
43)	Carbtetraclo	7.13	119	175411	10.6767	ug/L		96
44)	11dicloprope	7.11	110	83633	11.0212	ug/L	#	90
46)	Benzene	7.36	78	625142	10.7247	ug/L		100
47)	12dichlorota	7.36	62	219419	10.3239	ug/L		99
48)	TAME	7.53	73	379123	11.3122	ug/L		96
49)	trichloroete	8.16	95	164994	10.3661	ug/L		97
50)	methylcyclohexane	8.43	83	275787	10.0908	ug/L		97
51)	12dicloropra	8.42	63	166716	10.5878	ug/L		95
52)	23Dicl1propene	8.48	75	238613	10.5935	ug/L		99
53)	Dibromometha	8.56	93	98194	10.4507	ug/L		98
54)	methylmethacrylate	8.59	69	116940	11.1315	ug/L		99
55)	14dioxane	8.60	88	109614	492.5058	ug/L		95
56)	Bromodiclrma	8.76	83	190925	11.0480	ug/L		97
57)	2Nitropropane	9.03	43	288705	90.2978	ug/L		99
58)	2CLEVE	9.15	63	304758	55.9761	ug/L		98
59)	c13dicloproe	9.34	75	231547	11.2804	ug/L		99
60)	4Meth2Pentan	9.54	43	1422486	101.7091	ug/L		99
62)	Toluene	9.79	92	417725	10.6392	ug/L		99
63)	t13Dicloprop	10.05	75	197086	10.6668	ug/L		99
64)	ethylmethacrylate	10.20	69	402523	22.8020	ug/L		99
65)	112Triclotha	10.29	83	120299	10.6637	ug/L		97
66)	Tetrachlorte	10.53	166	187019	10.5120	ug/L		97
67)	13Diclorpropa	10.51	76	257976	10.5394	ug/L		99
69)	2Hexanone	10.62	43	1062919	107.8943	ug/L		100
70)	Clorodibrmta	10.81	129	144818	10.7286	ug/L		100
71)	12Dibrometha	10.97	107	148523	10.8669	ug/L		99
72)	Chlorobenzen	11.65	112	451763	10.6359	ug/L		99
73)	1Clhexane	11.63	91	209526	9.7970	ug/L		100
74)	1112Tetclota	11.76	131	137535	10.7732	ug/L		97
75)	Ethylbenzene	11.82	91	731177	10.8206	ug/L		100
76)	m p-Xylene	11.98	106	600043	21.7642	ug/L		98
77)	o-Xylene	12.52	106	299995	10.9505	ug/L		99
78)	Styrene	12.53	104	475346	11.0134	ug/L		100
79)	Bromoform	12.76	173	88390	10.5718	ug/L		99
80)	Isopropylben	13.05	105	718692	11.0199	ug/L		99
81)	cyclohexanone	13.13	55	241352	186.0354	ug/L		98
84)	Bromobenzene	13.46	156	186916	10.8506	ug/L		98
85)	1122Tetrclta	13.43	83	195325	10.8329	ug/L		94
86)	123Triclproa	13.50	75	234404	10.6139	ug/L		100
87)	14dichloro2butene	13.52	53	52130	9.8975	ug/L		93
88)	n-Propylbenz	13.64	91	796609	10.9591	ug/L		99
89)	2chlorotolue	13.75	91	483216	10.9116	ug/L		98
90)	4chlorotolue	13.90	91	558703	10.8241	ug/L		98
91)	135Trimebenz	13.90	105	577638	10.8994	ug/L		99
92)	tbutylbenzen	14.36	119	513412	10.7003	ug/L		98
93)	124Trimetben	14.43	105	563694	10.9778	ug/L		100
94)	sbutylbenzen	14.68	105	690333	11.0647	ug/L		99
95)	13Diclorbenz	14.82	146	333524	10.7114	ug/L		100
96)	pIsopropylto	14.90	119	598301	10.9395	ug/L		99
97)	14dichlorobe	14.94	146	341841	10.6201	ug/L		98
98)	12dichlorobe	15.49	146	321568	10.5524	ug/L		99
99)	nButylbenzen	15.49	91	498919	10.8990	ug/L		99
100)	12dibromo3cl	16.58	157	34104	10.6968	ug/L		98
101)	135Trichlorobenzene	16.91	180	222961	10.5348	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV1.D Vial: 14
Acq On : 3 Jan 2023 17:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	199392	10.7551	ug/L	98
103) Hexachlorobu	17.97	225	81386	10.8074	ug/L	98
104) Naphthalene	18.02	128	467784	11.4720	ug/L	99
105) 123Trichlben	18.33	180	181442	10.7518	ug/L	100

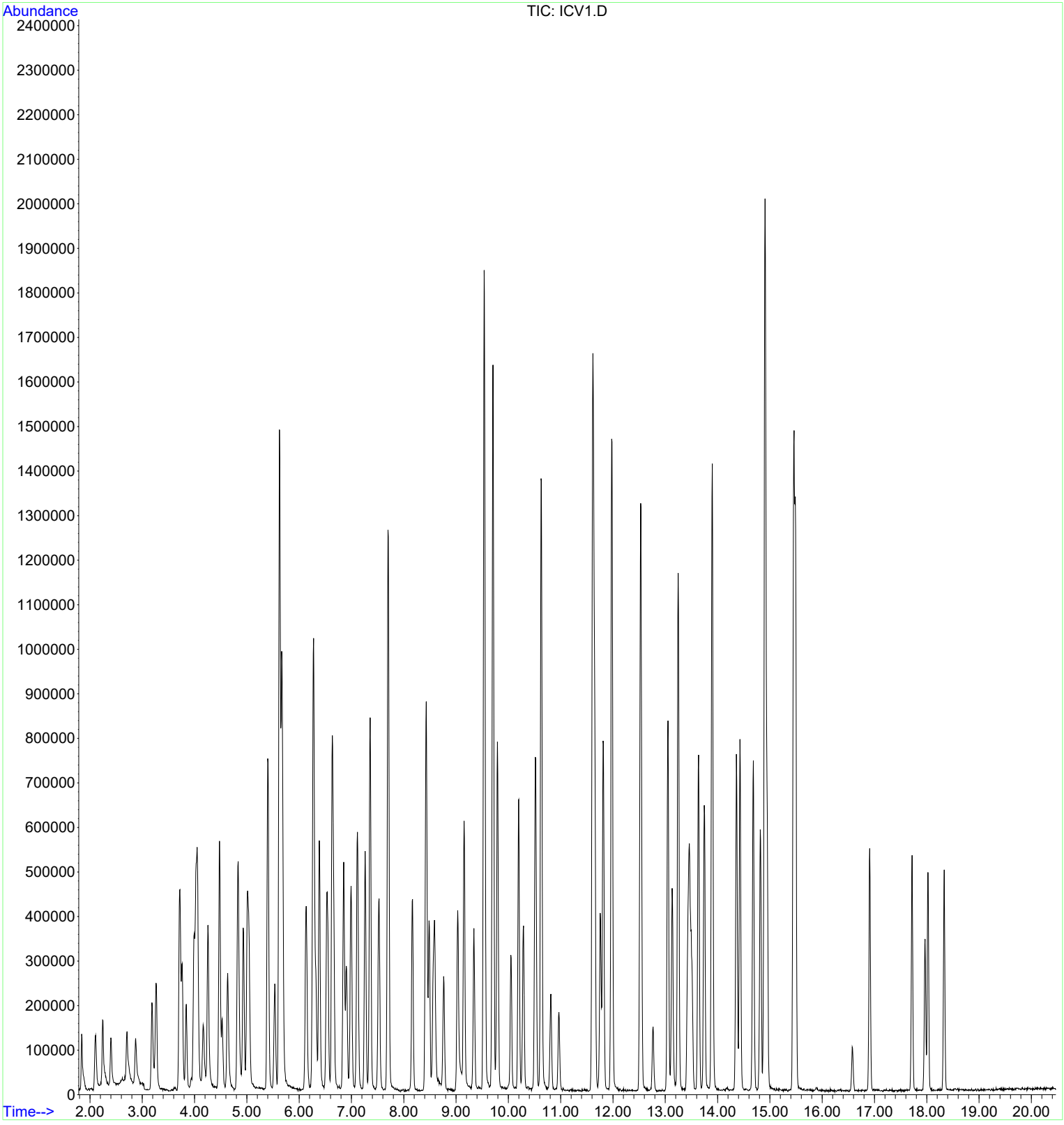
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV1.D Vial: 14
Acq On : 3 Jan 2023 17:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:02 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JAN0323\ICV2.D Vial: 15
Acq On : 3 Jan 2023 17:49 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jan 04 07:24:33 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00
2	PT	Dichlorodi	30.0000	33.6766	-12.26	112	0.00
3	PT	Chloromethan	30.0000	28.5792	4.74	105	0.00
4	PT	VinylChlorid	30.0000	30.8170	-2.72	107	0.00
5	PT	Bromomethane	30.0000	30.9346	-3.12	114	0.00
6	PT	Chloroethane	30.0000	30.2612	-0.87	106	0.00
7	T	Dichloroflmethane	30.0000	27.9342	6.89	101	0.00
8	PT	Trichlorofma	30.0000	32.3641	-7.88	106	0.00
9	T	Ethylether	30.0000	28.0523	6.49	98	0.00
10	T	dichlorotfluoroethan	30.0000	27.0078	9.97	91	0.00
11	T	propyleneoxide	300.0000	314.9945	-5.00	98	0.00
12	T	Acrolein	150.0000	148.7392	0.84	102	0.00
13	PT	11dichlorthe	30.0000	31.2257	-4.09	106	0.00
14	PT	Trichlorotfluoroeth	60.0000	61.5442	-2.57	101	0.00
15	PT	Acetone	300.0000	285.2725	4.91	96	0.00
16	T	Iodomethane	60.0000	59.2940	1.18	100	0.00
17	PT	Carbon Dislf	60.0000	57.4102	4.32	99	0.00
18	T	allylchloride	60.0000	60.1155	-0.19	100	0.00
19	PT	methylacetate	30.0000	35.5779	-18.59	120	0.00
20	PT	Methylchlorid	30.0000	31.0953	-3.65	104	0.00
21	T	tbutylalcohol	1500.0000	1777.6944	-18.51	102	0.00
22	T	Acrylonitrile	150.0000	143.8219	4.12	99	0.00
23	PT	t12dichlorte	30.0000	30.5880	-1.96	104	0.00
24	PT	MtBE	30.0000	30.1275	-0.43	100	0.00
25	T	Hexane	60.0000	62.7728	-4.62	100	0.00
26	PT	11dichlorota	30.0000	30.2388	-0.80	103	0.00
27	T	Vinylacetate	300.0000	314.4061	-4.80	99	0.00
28	T	chloroprene	60.0000	60.6539	-1.09	102	0.00
29	T	Diisopether	30.0000	29.7754	0.75	99	0.00
30	T	ETBE	30.0000	32.2868	-7.62	102	0.00
31	T	22dichloropr	30.0000	31.5798	-5.27	106	0.00
32	PT	c12dichlorte	30.0000	29.7111	0.96	103	0.00
33	PT	2Butanone	300.0000	299.2802	0.24	101	0.00
34	T	propionitrile	300.0000	288.6708	3.78	99	0.00
35	T	Ethylacetate	150.0000	160.8588	-7.24	98	0.00
36	T	methacrylonitrile	60.0000	60.9965	-1.66	102	0.00
37	T	Bromochlorma	30.0000	29.6983	1.01	102	0.00
38	T	Tetrahydofur	300.0000	279.2825	6.91	99	0.00
39	PT	Chloroform	30.0000	29.5894	1.37	104	0.00
40	PT	111trichlota	30.0000	34.9073	-16.36	107	0.00
41	S	SURRDibrflma	20.0000	20.1634	-0.82	99	0.00
42	PT	Cyclohexane	30.0000	32.2955	-7.65	102	0.00
43	PT	Carbtetraclo	30.0000	32.7302	-9.10	110	0.00
44	T	11dicloprope	30.0000	32.7163	-9.05	107	0.00
45	S	SURR12DCAd4	20.0000	21.2419	-6.21	105	0.00
46	PT	Benzene	30.0000	28.5966	4.68	102	0.00
47	PT	12dichlorota	30.0000	29.2837	2.39	104	0.00
48	T	TAME	30.0000	32.8343	-9.45	102	0.00

49	PT	trichloroete	30.0000	29.8990	0.34	105	0.00	
50	PT	methylcyclohexane	30.0000	32.9672	-9.89	103	0.00	
51	PT	12dicloropra	30.0000	30.9463	-3.15	105	0.00	
52	T	23Dicl1propene	30.0000	30.9488	-3.16	101	0.00	
53	T	Dibromometha	30.0000	30.1152	-0.38	101	0.00	
54	T	methylmethacrylate	30.0000	33.7268	-12.42	103	0.00	
55	T	14dioxane	1500.0000	1462.9463	2.47	98	0.00	
56	PT	Bromodiclrma	30.0000	32.3945	-7.98	104	0.00	
57	T	2Nitropropane	300.0000	305.8267	-1.94	98	0.00	
58	T	2CLEVE	150.0000	171.5689	-14.38	103	0.00	
59	PT	c13dicloproe	30.0000	33.4780	-11.59	103	0.00	
60	PT	4Meth2Pentan	300.0000	262.4377	12.52	100	0.00	
61	S	SURRd8Tolule	20.0000	19.9188	0.41	100	0.00	
62	PT	Toluene	30.0000	29.5885	1.37	104	0.00	
63	PT	t13Dicloprop	30.0000	31.3460	-4.49	105	0.00	
64	T	ethylmethacrylate	60.0000	67.6346	-12.72	100	0.00	
65	PT	112Triclotha	30.0000	30.8944	-2.98	104	0.00	
66	PT	Tetrachlorte	30.0000	30.9767	-3.26	106	0.00	
67	T	13Diclorpropa	30.0000	29.7121	0.96	103	0.00	
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00	
69	PT	2Hexanone	300.0000	289.3942	3.54	100	0.00	
70	PT	Clorodibrmta	30.0000	31.9832	-6.61	104	0.00	
71	PT	12Dibrometha	30.0000	31.8490	-6.16	103	0.00	
72	PT	Chlorobenzen	30.0000	29.5202	1.60	105	0.00	
73	T	1Clhexane	30.0000	31.1618	-3.87	105	0.00	
74	T	1112Tetclota	30.0000	31.5742	-5.25	106	0.00	
75	PT	Ethylbenzene	30.0000	29.4732	1.76	103	0.00	
76	PT	m p-Xylene	60.0000	59.6438	0.59	103	0.00	
77	PT	o-Xylene	30.0000	31.0373	-3.46	106	0.00	
78	PT	Styrene	30.0000	30.8495	-2.83	103	0.00	
79	PT	Bromoform	30.0000	32.3365	-7.79	105	0.00	
80	PT	Isopropylben	30.0000	30.6260	-2.09	104	0.00	
81	T	cyclohexanone	600.0000	526.7325	12.21	86	0.00	
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	99	0.00	
83	S	SURR4BrFBenz	20.0000	19.7445	1.28	98	0.00	
84	T	Bromobenzene	30.0000	30.6282	-2.09	105	0.00	
85	PT	1122Tetrclta	30.0000	30.9377	-3.13	105	0.00	
86	T	123Triclproa	30.0000	32.1886	-7.30	102	0.00	
87	T	14dichloro2butene	30.0000	31.2870	-4.29	97	0.00	
88	T	n-Propylbenz	30.0000	29.1460	2.85	102	0.00	
89	T	2chlorotolue	30.0000	29.5773	1.41	103	0.00	
90	T	4chlorotolue	30.0000	29.0660	3.11	102	0.00	
91	T	135Trimebenz	30.0000	30.3900	-1.30	103	0.00	
92	T	tbutylbenzen	30.0000	30.3342	-1.11	105	0.00	
93	T	124Trimetben	30.0000	30.5720	-1.91	105	0.00	
94	T	sbutylbenzen	30.0000	30.8696	-2.90	104	0.00	
95	PT	13Diclorbenz	30.0000	30.1294	-0.43	105	0.00	
96	T	pIsopropylto	30.0000	31.1750	-3.92	104	0.00	
97	PT	14dichlorobe	30.0000	29.5026	1.66	104	0.00	
98	PT	12dichlorobe	30.0000	29.1490	2.84	103	0.00	
99	T	nButylbenzen	30.0000	31.0446	-3.48	104	0.00	
100	PT	12dibromo3cl	30.0000	33.1643	-10.55	108	0.00	
101	T	135Trichlorobenzene	30.0000	30.3611	-1.20	102	0.00	
102	PT	124Trichlobe	30.0000	31.4221	-4.74	103	0.00	
103	T	Hexachlorobu	30.0000	32.7673	-9.22	106	0.00	
104	T	Naphthalene	30.0000	32.9869	-9.96	103	0.00	
105	T	123Trichlben	30.0000	31.9057	-6.35	104	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W010323.M Wed Jan 04 07:31:27 2023

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV2.D Vial: 15
Acq On : 3 Jan 2023 17:49 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1375205	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1062122	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	549204	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	355580	20.163	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	105951	21.242	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 106	%		
61) SURRd8Tolule	9.71	98	1364032	19.919	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.25	95	512337	19.745	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	491456	33.6766	ug/L	98
3) Chloromethan	2.11	50	502156	28.5792	ug/L	99
4) VinylChlorid	2.24	62	594809	30.8170	ug/L	97
5) Bromomethane	2.70	94	314687	30.9346	ug/L	100
6) Chloroethane	2.87	64	388179	30.2612	ug/L	98
7) Dichloroflmethane	3.18	67	837065	27.9342	ug/L	100
8) Trichlorofma	3.26	101	734371	32.3641	ug/L	99
9) Ethylether	3.71	59	380186	28.0523	ug/L	97
10) dichlorotfluoroethan	3.72	67	639058	27.0078	ug/L	97
11) propyleneoxide	3.76	58	761271	314.9945	ug/L	95
12) Acrolein	3.84	56	556550	148.7392	ug/L	98
13) 11dichlorthe	3.99	96	436696	31.2257	ug/L	98
14) Trichlorotfluoroeth	4.02	101	858800	61.5442	ug/L	98
15) Acetone	4.05	43	1457611	285.2725	ug/L	97
16) Iodomethane	4.16	142	901320	59.2940	ug/L	99
17) Carbon Dislf	4.26	76	1951524	57.4102	ug/L	97
18) allylchloride	4.47	41	1221795	60.1155	ug/L	96
19) methylacetate	4.53	74	173313	35.5779	ug/L	98
20) Methylchlorid	4.63	84	456510	31.0953	ug/L	97
21) tbutylalcohol	4.83	59	2300374	1777.6944	ug/L	98
22) Acrylonitrile	4.93	53	957533	143.8219	ug/L	99
23) t12dichlorte	5.00	96	472250	30.5880	ug/L	100
24) MtBE	5.03	73	1203285	30.1275	ug/L	99
25) Hexane	5.40	57	1425779	62.7728	ug/L	96
26) 11dichlorota	5.53	63	795772	30.2388	ug/L	99
27) Vinylacetate	5.62	43	6404360	314.4061	ug/L	90
28) chloroprene	5.66	53	1402320	60.6539	ug/L	99
29) Diisopether	5.68	45	1392758	29.7754	ug/L	93
30) ETBE	6.13	59	1248139	32.2868	ug/L	95
31) 22dichloropr	6.27	77	583696	31.5798	ug/L	99
32) c12dichlorte	6.26	96	511426	29.7111	ug/L	96
33) 2Butanone	6.28	72	694293	299.2802	ug/L	99
34) propionitrile	6.32	54	822621	288.6708	ug/L	98
35) Ethylacetate	6.38	88	119062	160.8588	ug/L #	93
36) methacrylonitrile	6.52	67	458672	60.9965	ug/L	95
37) Bromochlorma	6.55	128	246904	29.6983	ug/L	96
38) Tetrahydofur	6.63	42	1573601	279.2825	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV2.D Vial: 15
Acq On : 3 Jan 2023 17:49 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	779367	29.5894	ug/L	97
40)	111trichlota	6.90	97	698696	34.9073	ug/L	98
42)	Cyclohexane	6.99	56	857606	32.2955	ug/L	96
43)	Carbtetraclo	7.12	119	602013	32.7302	ug/L	93
44)	11dicloprope	7.11	110	257674	32.7163	ug/L	94
46)	Benzene	7.36	78	1730073	28.5966	ug/L	98
47)	12dichlorota	7.36	62	645971	29.2837	ug/L	98
48)	TAME	7.52	73	1142141	32.8343	ug/L	92
49)	trichloroete	8.16	95	493930	29.8990	ug/L	99
50)	methylcyclohexane	8.43	83	935169	32.9672	ug/L	98
51)	12dicloropra	8.42	63	505753	30.9463	ug/L	100
52)	23Dicl1propene	8.48	75	723528	30.9488	ug/L	98
53)	Dibromometha	8.56	93	293685	30.1152	ug/L	97
54)	methylmethacrylate	8.59	69	367742	33.7268	ug/L	97
55)	14dioxane	8.60	88	337941	1462.9463	ug/L	95
56)	Bromodiclrma	8.76	83	581042	32.3945	ug/L	100
57)	2Nitropropane	9.03	43	1120982	305.8267	ug/L	98
58)	2CLEVE	9.15	63	969503	171.5689	ug/L	96
59)	c13dicloproe	9.34	75	713233	33.4780	ug/L	95
60)	4Meth2Pentan	9.54	43	3809537	262.4377	ug/L	92
62)	Toluene	9.79	92	1205769	29.5885	ug/L	96
63)	t13Dicloprop	10.05	75	631911	31.3460	ug/L	100
64)	ethylmethacrylate	10.19	69	1239208	67.6346	ug/L	97
65)	112Triclotha	10.29	83	361734	30.8944	ug/L	98
66)	Tetrachlorte	10.53	166	571994	30.9767	ug/L	99
67)	13Diclorpropa	10.51	76	754839	29.7121	ug/L	98
69)	2Hexanone	10.63	43	2934858	289.3942	ug/L	93
70)	Clorodibrmta	10.81	129	471888	31.9832	ug/L	99
71)	12Dibrometha	10.97	107	456567	31.8490	ug/L	98
72)	Chlorobenzen	11.65	112	1290779	29.5202	ug/L	99
73)	1Clhexane	11.63	91	686061	31.1618	ug/L	94
74)	1112Tetclota	11.76	131	445381	31.5742	ug/L	99
75)	Ethylbenzene	11.81	91	2050189	29.4732	ug/L	95
76)	m p-Xylene	11.98	106	1692784	59.6438	ug/L	92
77)	o-Xylene	12.53	106	875305	31.0373	ug/L	94
78)	Styrene	12.53	104	1370664	30.8495	ug/L	99
79)	Bromoform	12.77	173	311035	32.3365	ug/L	99
80)	Isopropylben	13.05	105	2056128	30.6260	ug/L	96
81)	cyclohexanone	13.13	55	703463	526.7325	ug/L	96
84)	Bromobenzene	13.46	156	555055	30.6282	ug/L	99
85)	1122Tetrclta	13.43	83	586842	30.9377	ug/L	97
86)	123Triclproa	13.50	75	747847	32.1886	ug/L	98
87)	14dichloro2butene	13.51	53	173358	31.2870	ug/L	77
88)	n-Propylbenz	13.64	91	2228793	29.1460	ug/L	93
89)	2chlorotolue	13.75	91	1377940	29.5773	ug/L	96
90)	4chlorotolue	13.90	91	1578316	29.0660	ug/L	94
91)	135Trimebenz	13.89	105	1694346	30.3900	ug/L	96
92)	tbutylbenzen	14.36	119	1531162	30.3342	ug/L	99
93)	124Trimetben	14.43	105	1651480	30.5720	ug/L	98
94)	sbutylbenzen	14.68	105	2026135	30.8696	ug/L	95
95)	13Diclorbenz	14.82	146	986941	30.1294	ug/L	100
96)	pIsopropylto	14.90	119	1793699	31.1750	ug/L	97
97)	14dichlorobe	14.94	146	999027	29.5026	ug/L	98
98)	12dichlorobe	15.49	146	934470	29.1490	ug/L	99
99)	nButylbenzen	15.49	91	1495025	31.0446	ug/L	95
100)	12dibromo3cl	16.58	157	126498	33.1643	ug/L	97
101)	135Trichlorobenzene	16.91	180	675990	30.3611	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV2.D Vial: 15
Acq On : 3 Jan 2023 17:49 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	612844	31.4221	ug/L	98
103) Hexachlorobu	17.97	225	259591	32.7673	ug/L	94
104) Naphthalene	18.02	128	1415044	32.9869	ug/L	99
105) 123Trichlben	18.33	180	566427	31.9057	ug/L	100

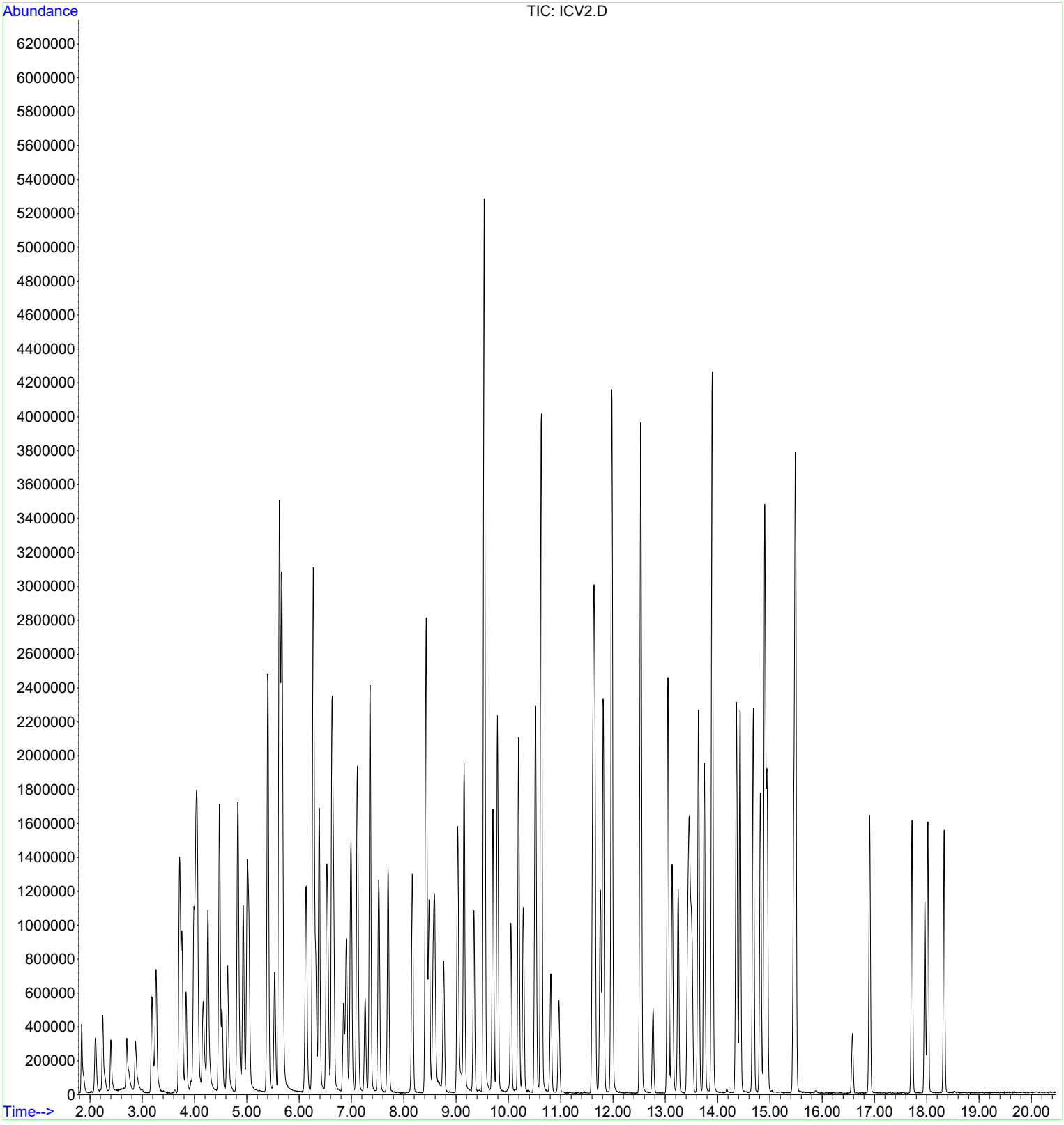
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JAN0323\ICV2.D Vial: 15
Acq On : 3 Jan 2023 17:49 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 04 07:24:33 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jan 04 07:23:53 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\ICB1.D Vial: 19
Acq On : 3 Jan 2023 19:46 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 20:07:26 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1265621	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	972364	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	474596	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	320142	20.364	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.27	102	89395	20.350	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%		
61) SURRd8Tolule	9.71	98	1248003	19.937	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.25	95	460009	18.716	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 94	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	3897	Below	Cal #	43
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.26	76	2564	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.86	59	3606	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\ICB1.D Vial: 19
Acq On : 3 Jan 2023 19:46 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 20:07:26 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.54	43	5545	Below Cal #	38
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.63	43	5345	Below Cal #	87
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	2807	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.14	55	3432	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	13.64	91	3335	N.D.	
89)	2chlorotolue	13.64	91	3128	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	14.67	105	3257	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.90	119	3353	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.49	91	3583	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\ICB1.D Vial: 19
Acq On : 3 Jan 2023 19:46 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 20:07:26 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	18.03	128	7191	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

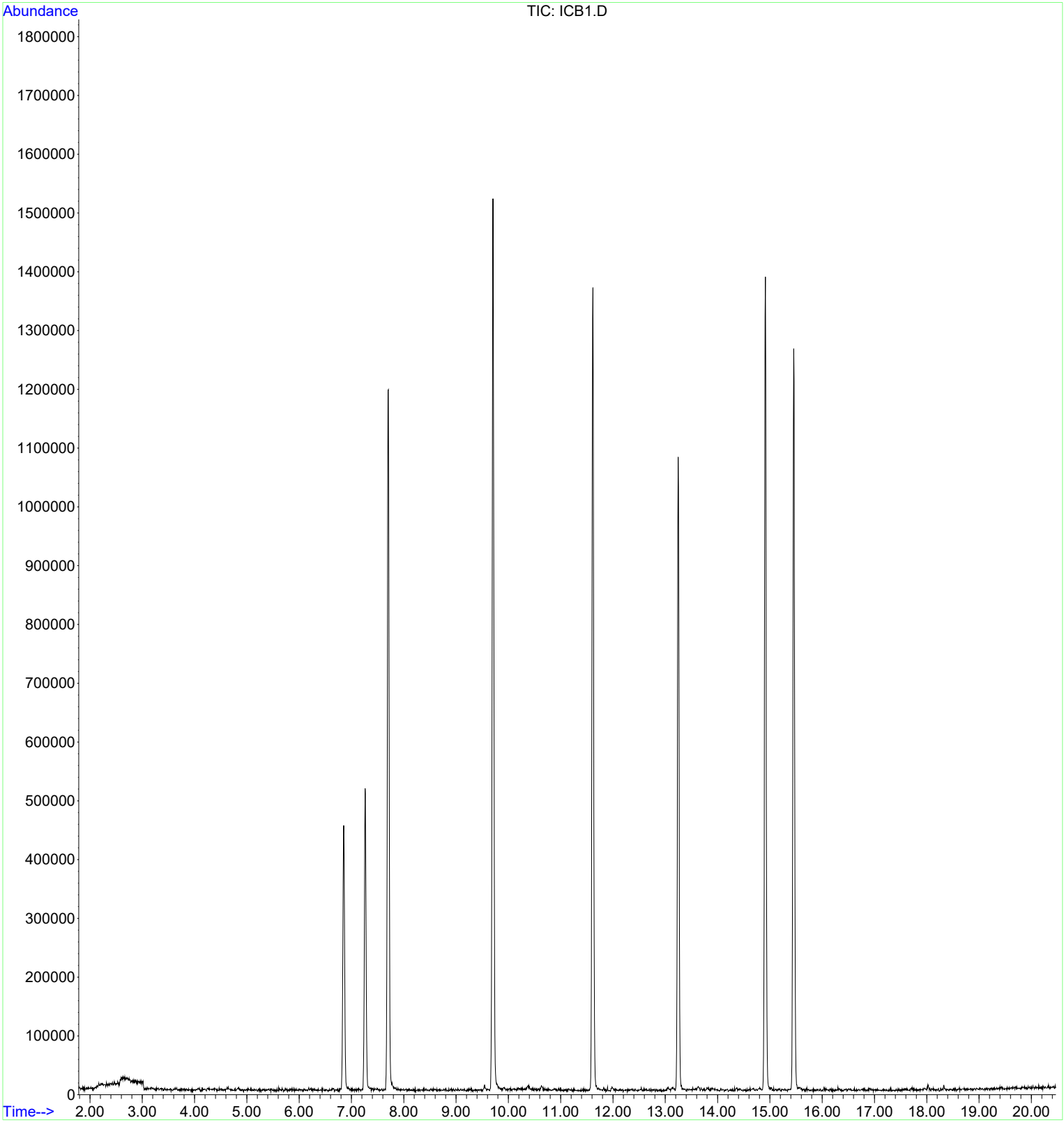
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JAN0323\ICB1.D Vial: 19
Acq On : 3 Jan 2023 19:46 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jan 03 20:07:26 2023 Results File: W010323.RES

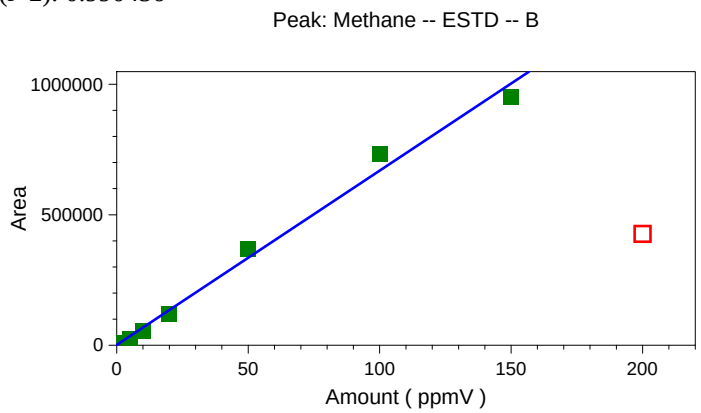
Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Dec 14 13:22:40 2022
Response via : Initial Calibration
DataAcq Meth : W010323.M



Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG012323.met
Print Time: Jan 23, 2023 12:45:11
User: DGS
Instrument: PVOC4

Methane (B)
Average RF: 5849.71 RF StDev: 1315.58 RF %RSD: 22.4896
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6683.01x + 945.582
Goodness of fit (r^2): 0.990456



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	7566	24040	53976	117657	369898
RF	3783	4808	5397.6	5882.85	7397.96
Last Area Residual	1.00937	1.54431	2.06489	2.5361	-5.20751
Rep StDev					
Rep %RSD					
Rep 1 Area	7566	24040	53976	117657	369898
Rep 1 User	DGS	DGS	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\012323\002.dat	C:\Instarch\PVOC4\Data\012323\003.dat	C:\Instarch\PVOC4\Data\012323\004.dat	C:\Instarch\PVOC4\Data\012323\005.dat	C:\Instarch\PVOC4\Data\012323\006.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jan 23, 2023 10:38:39	Jan 23, 2023 10:42:21	Jan 23, 2023 10:46:07	Jan 23, 2023 10:49:35	Jan 23, 2023 10:56:36

	Level 6	Level 7	Level 8
Amount	100	150	200
Area	732246	953411	426631*

Calibration Report

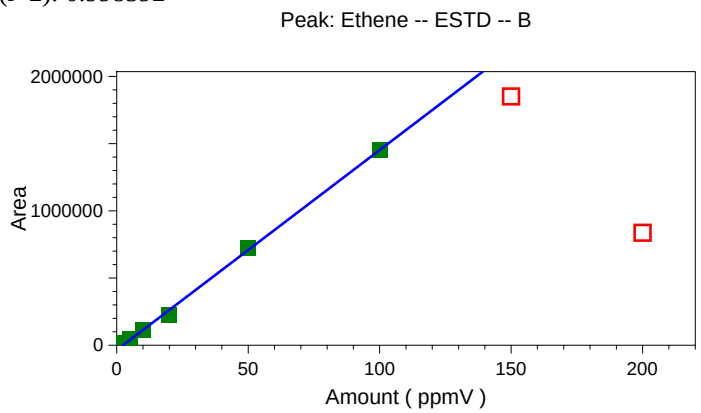
Method: C:\Instarch\PVOC4\Methods\P4DG012323.met
Print Time: Jan 23, 2023 12:45:11
User: DGS
Instrument: PVOC4

RF	7322.46	6356.073333333333	2133.155
Last Area Residual	-9.42678	7.47961	136.303
Rep StDev			
Rep %RSD			
Rep 1 Area	732246	953411	426631*
Rep 1 User	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\012323\007.dat	C:\Instarch\PVOC4\Data\012323\008.dat	C:\Instarch\PVOC4\Data\012323\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 150 ppmV	MEE PT8 - 200 ppmV
Rep 1 Calib. Time	Jan 23, 2023 11:00:07	Jan 23, 2023 11:25:44	Jan 23, 2023 11:29:43

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG012323.met
Print Time: Jan 23, 2023 12:45:22
User: DGS
Instrument: PVOC4

Ethene (B)
Average RF: 11261.6 RF StDev: 2911.44 RF %RSD: 25.8527
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 14876.6x - 35443.5
Goodness of fit (r^2): 0.998592



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14063	46870	110609	222413	722970
RF	7031.5	9374	11060.9	11120.65	14459.4
Last Area					
Residual	-1.32781	-0.533077	0.182417	2.667	-0.980209
Rep StDev					
Rep %RSD					
Rep 1 Area	14063	46870	110609	222413	722970
Rep 1 User	DGS	DGS	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\012323\002.dat	C:\Instarch\PVOC4\Data\012323\003.dat	C:\Instarch\PVOC4\Data\012323\004.dat	C:\Instarch\PVOC4\Data\012323\005.dat	C:\Instarch\PVOC4\Data\012323\006.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jan 23, 2023 10:38:39	Jan 23, 2023 10:42:21	Jan 23, 2023 10:46:07	Jan 23, 2023 10:49:35	Jan 23, 2023 10:56:36

	Level 6	Level 7	Level 8
Amount	100	150	200
Area	1452343	1850994*	836464*
RF	14523.43	12339.96	4182.32

Calibration Report

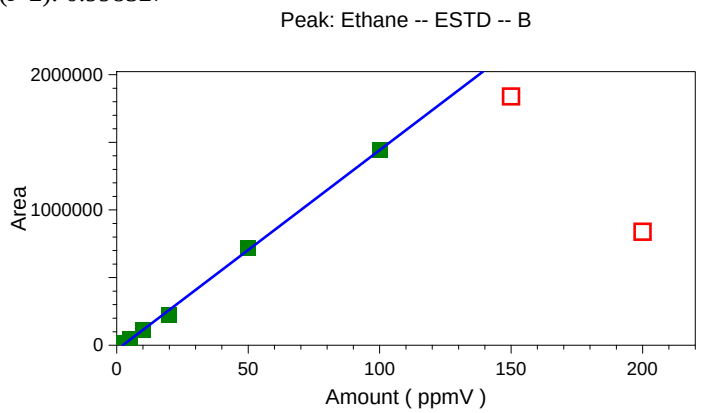
Method: C:\Instarch\PVOC4\Methods\P4DG012323.met
Print Time: Jan 23, 2023 12:45:22
User: DGS
Instrument: PVOC4

Last Area			
Residual	-0.00832773	23.1945	141.391
Rep StDev			
Rep %RSD			
Rep 1 Area	1452343	1850994*	836464*
Rep 1 User	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\012323\007.dat	C:\Instarch\PVOC4\Data\012323\008.dat	C:\Instarch\PVOC4\Data\012323\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 150 ppmV	MEE PT8 - 200 ppmV
Rep 1 Calib. Time	Jan 23, 2023 11:00:07	Jan 23, 2023 11:25:44	Jan 23, 2023 11:29:43

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG012323.met
Print Time: Jan 23, 2023 12:45:25
User: DGS
Instrument: PVOC4

Ethane (B)
Average RF: 11100.3 RF StDev: 3186.09 RF %RSD: 28.7027
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 14775.3x - 34590.6
Goodness of fit (r^2): 0.998527



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	11954	47793	111977	220352	721740
RF	5977	9558.6	11197.7	11017.6	14434.8
Last Area					
Residual	-1.15016	-0.575757	0.0802415	2.74537	-1.18878
Rep StDev					
Rep %RSD					
Rep 1 Area	11954	47793	111977	220352	721740
Rep 1 User	DGS	DGS	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\012323\002.dat	C:\Instarch\PVOC4\Data\012323\003.dat	C:\Instarch\PVOC4\Data\012323\004.dat	C:\Instarch\PVOC4\Data\012323\005.dat	C:\Instarch\PVOC4\Data\012323\006.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jan 23, 2023 10:38:39	Jan 23, 2023 10:42:21	Jan 23, 2023 10:46:07	Jan 23, 2023 10:49:35	Jan 23, 2023 10:56:36

	Level 6	Level 7	Level 8
Amount	100	150	200
Area	1441625	1839063*	838758*
RF	14416.25	12260.42	4193.79

Calibration Report

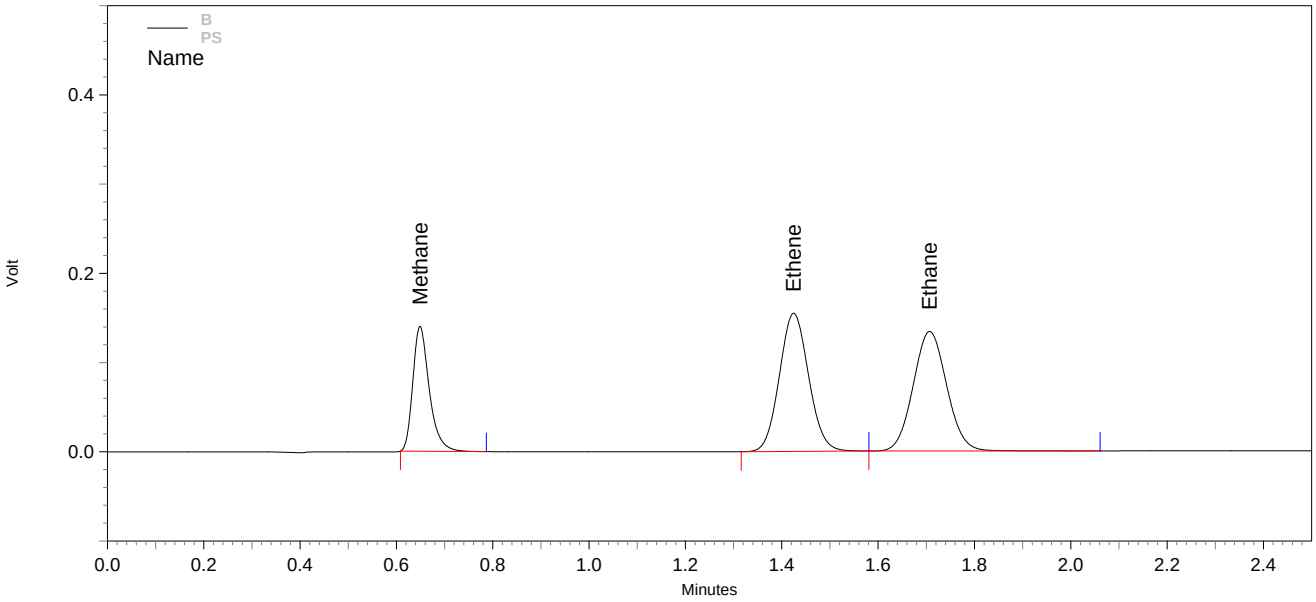
Method: C:\Instarch\PVOC4\Methods\P4DG012323.met
Print Time: Jan 23, 2023 12:45:25
User: DGS
Instrument: PVOC4

Last Area			
Residual	0.0890843	23.1903	140.891
Rep StDev			
Rep %RSD			
Rep 1 Area	1441625	1839063*	838758*
Rep 1 User	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\012323\007.dat	C:\Instarch\PVOC4\Data\012323\008.dat	C:\Instarch\PVOC4\Data\012323\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 150 ppmV	MEE PT8 - 200 ppmV
Rep 1 Calib. Time	Jan 23, 2023 11:00:07	Jan 23, 2023 11:25:44	Jan 23, 2023 11:29:43

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\001.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: PS
Acquired: Jan 23, 2023 10:32:19
File Desc. 0.01 mL injection (Methane, Ethene, Ethane)



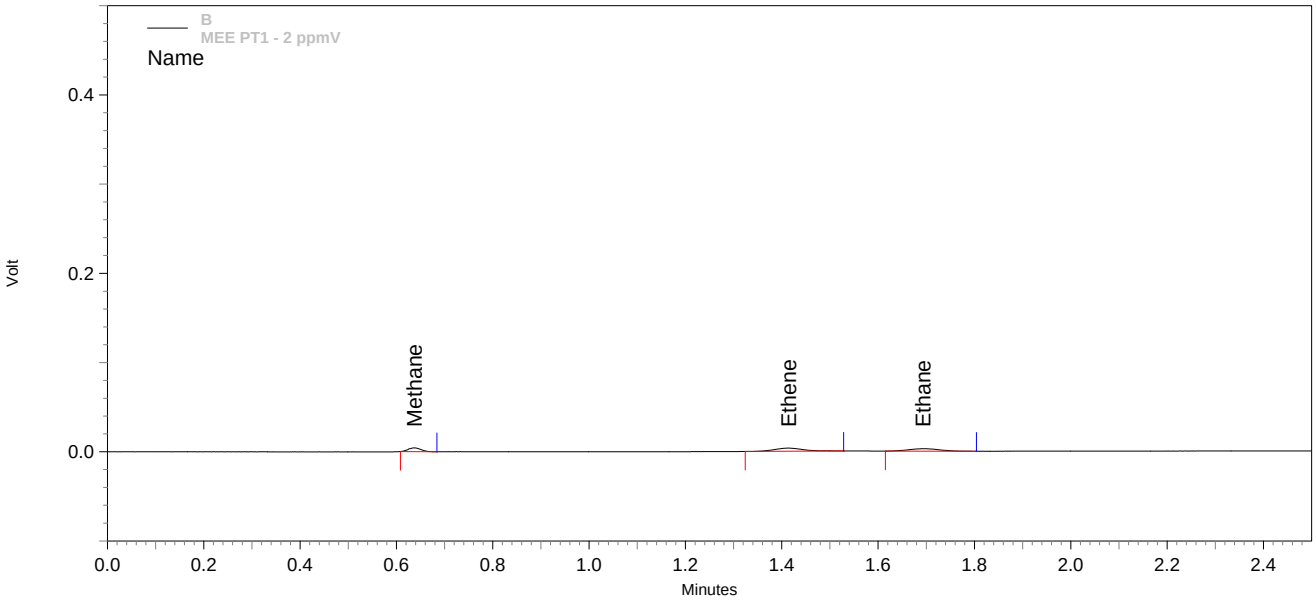
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.649**	**0.658**	**331810**	**59.470**	**ppmV**
2	**Ethene**	**1.424**	**1.442**	**651770**	**61.317**	**ppmV**
3	**Ethane**	**1.707**	**1.726**	**647777**	**60.835**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT1 - 2 ppmV
Acquired: Jan 23, 2023 10:35:51
File Desc. 0.01 mL injection (Methane, Ethene, Ethane)



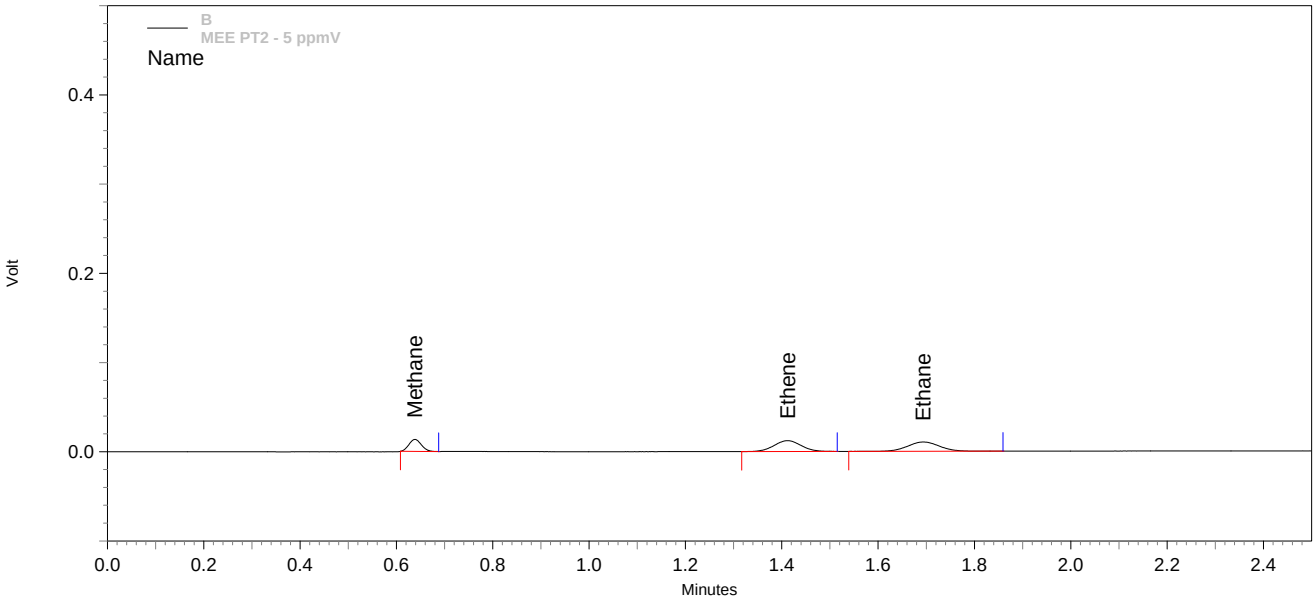
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.637**	**0.658**	**7566**	**2.000 CAL**	**ppmV**
2	**Ethene**	**1.415**	**1.442**	**14063**	**2.000 CAL**	**ppmV**
3	**Ethane**	**1.693**	**1.726**	**11954**	**2.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT2 - 5 ppmV
Acquired: Jan 23, 2023 10:39:25
File Desc. 0.025 mL injection (Methane, Ethene, Ethane)



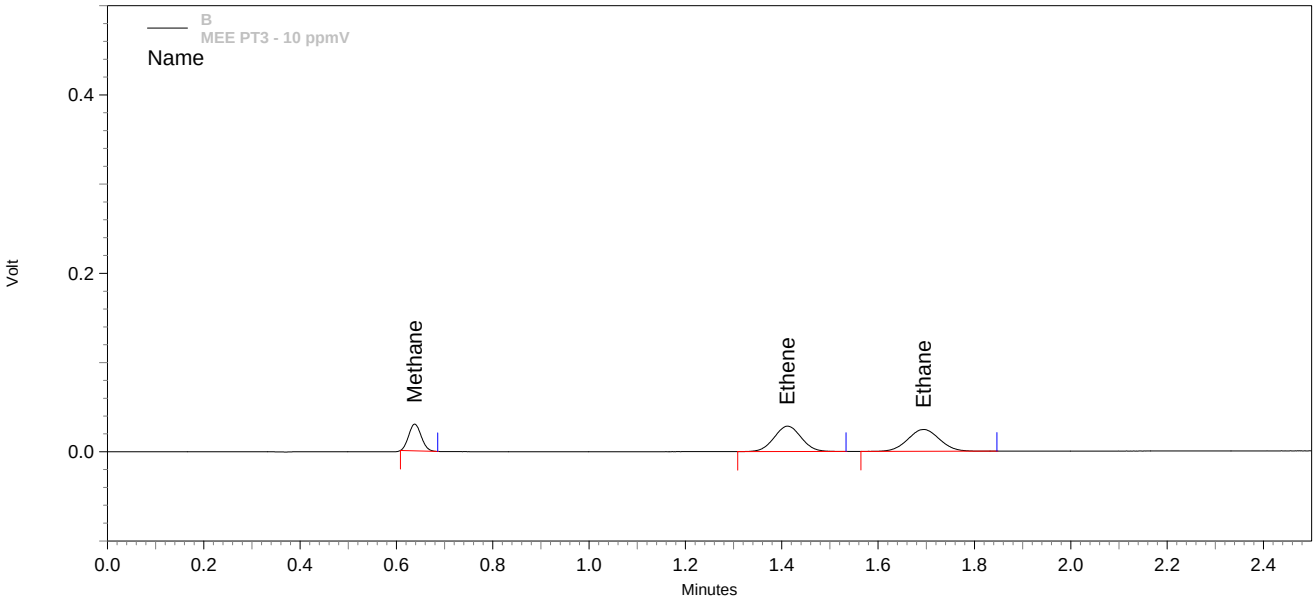
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.638**	**0.658**	**24040**	**5.000 CAL**	**ppmV**
2	**Ethene**	**1.413**	**1.442**	**46870**	**5.000 CAL**	**ppmV**
3	**Ethane**	**1.693**	**1.726**	**47793**	**5.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT3 - 10 ppmV
Acquired: Jan 23, 2023 10:43:18
File Desc. 0.05 mL injection (Methane, Ethene, Ethane)



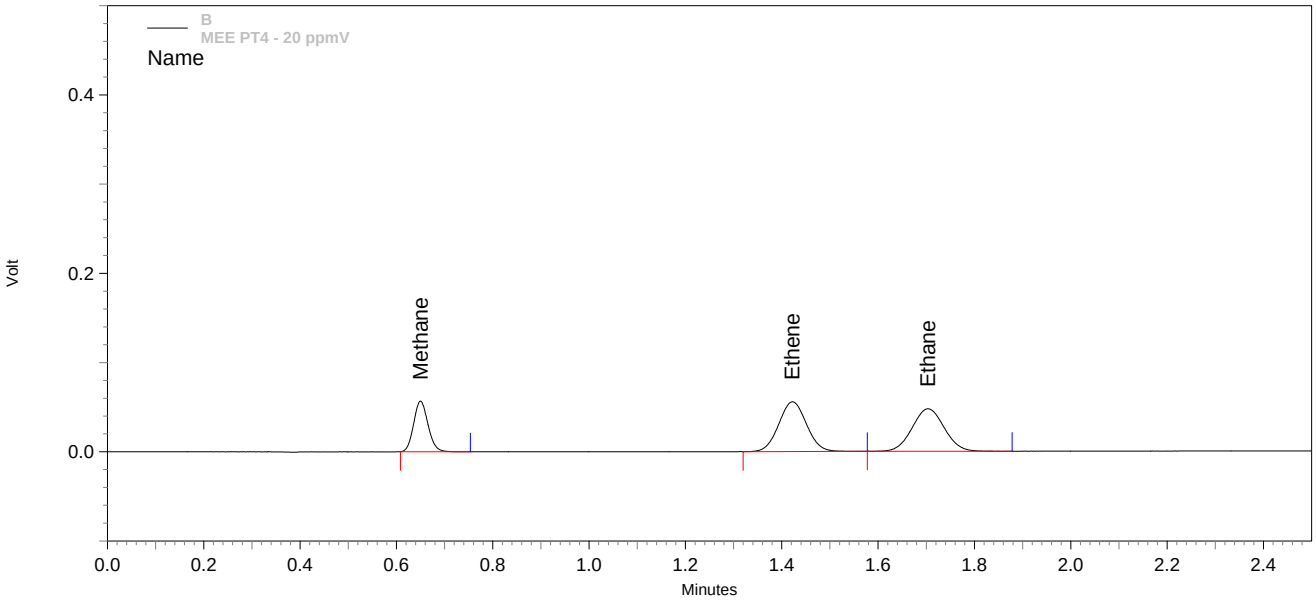
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.637**	**0.658**	**53976**	**10.000 CAL**	**ppmV**
2	**Ethene**	**1.411**	**1.442**	**110609**	**10.000 CAL**	**ppmV**
3	**Ethane**	**1.694**	**1.726**	**111977**	**10.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT4 - 20 ppmV
Acquired: Jan 23, 2023 10:46:45
File Desc. 0.1 mL injection (Methane, Ethene, Ethane)



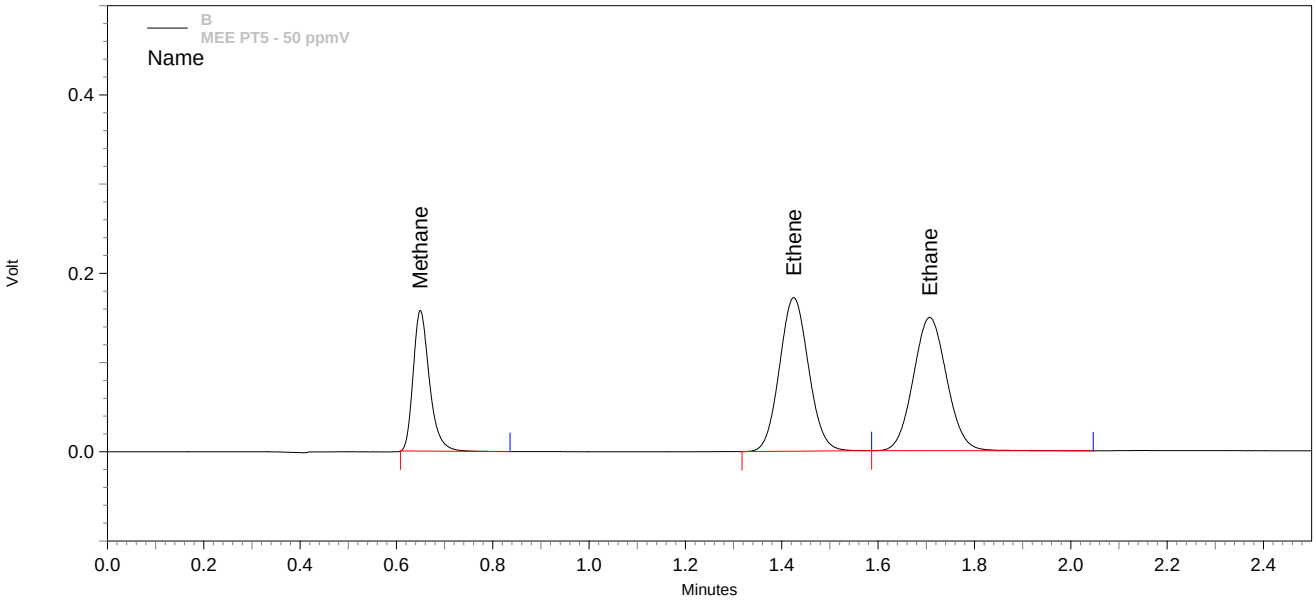
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.650**	**0.658**	**117657**	**20.000 CAL**	**ppmV**
2	**Ethene**	**1.422**	**1.442**	**222413**	**20.000 CAL**	**ppmV**
3	**Ethane**	**1.703**	**1.726**	**220352**	**20.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT5 - 50 ppmV
Acquired: Jan 23, 2023 10:53:48
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



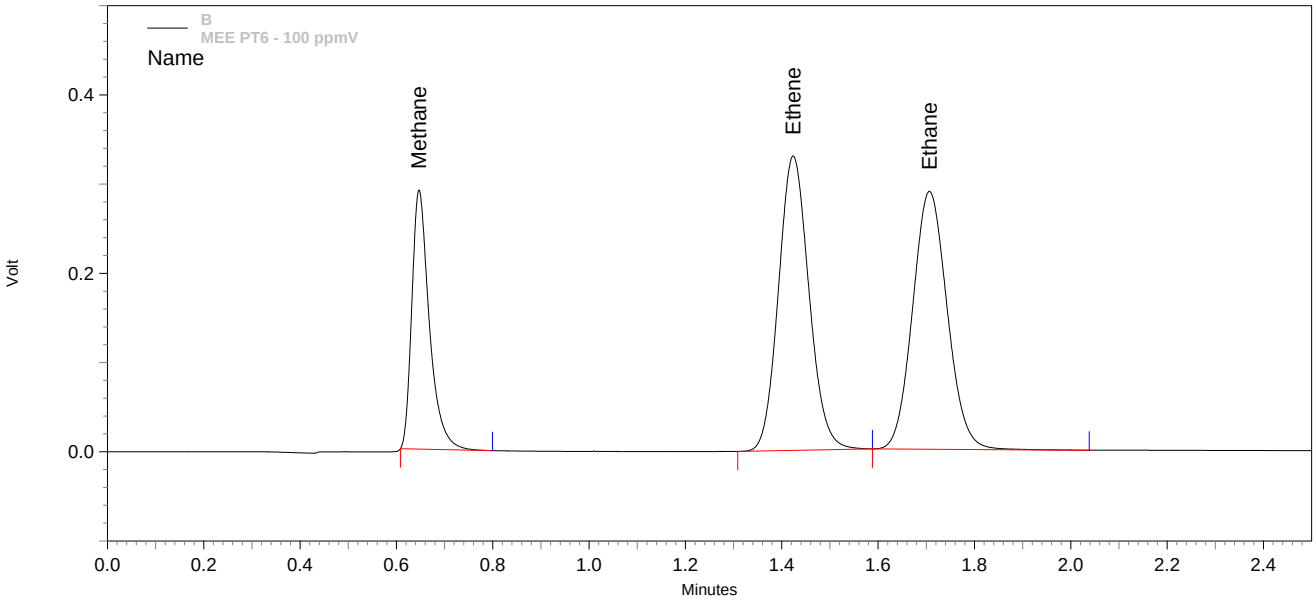
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.649**	**0.658**	**369898**	**50.000 CAL**	**ppmV**
2	**Ethene**	**1.425**	**1.442**	**722970**	**50.000 CAL**	**ppmV**
3	**Ethane**	**1.708**	**1.726**	**721740**	**50.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT6 - 100 ppmV
Acquired: Jan 23, 2023 10:57:20
File Desc. 0.5 mL injection (Methane, Ethene, Ethane)



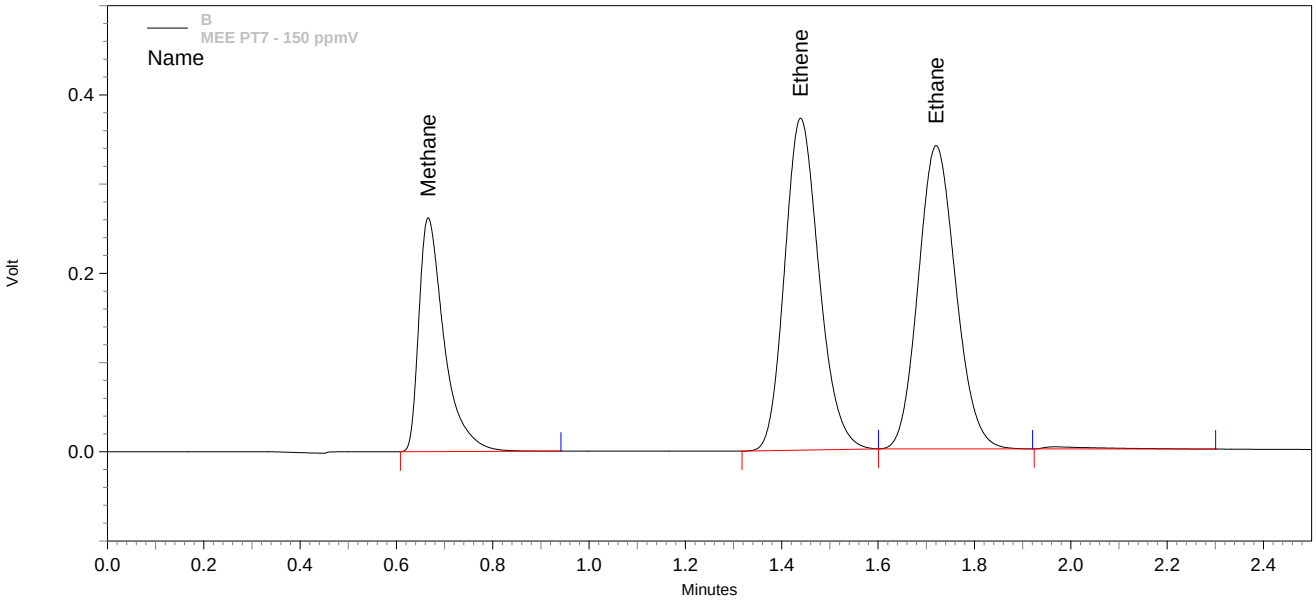
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.647**	**0.658**	**732246**	**100.000 CAL**	**ppmV**
2	**Ethene**	**1.423**	**1.442**	**1452343**	**100.000 CAL**	**ppmV**
3	**Ethane**	**1.707**	**1.726**	**1441625**	**100.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT7 - 150 ppmV
Acquired: Jan 23, 2023 11:21:49
File Desc. 0.75 mL injection (Methane, Ethene, Ethane)



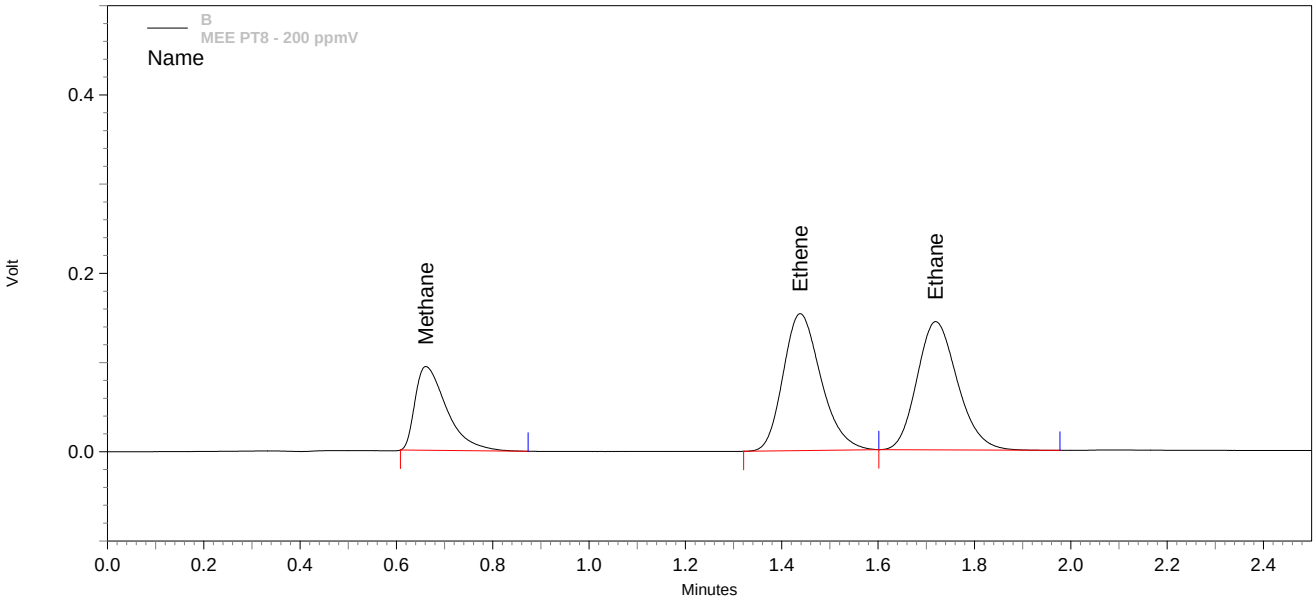
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.666**	**0.658**	**953411**	**150.000 CAL**	**ppmV**
2	**Ethene**	**1.439**	**1.442**	**1850994**	**150.000 CAL**	**ppmV**
3	**Ethane**	**1.721**	**1.726**	**1839063**	**150.000 CAL**	**ppmV**
4		**1.965**	**0.000**	**19557**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: MEE PT8 - 200 ppmV
Acquired: Jan 23, 2023 11:26:34
File Desc. 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.661**	**0.658**	**426631**	**200.000 CAL**	**ppmV**
2	**Ethene**	**1.438**	**1.442**	**836464**	**200.000 CAL**	**ppmV**
3	**Ethane**	**1.719**	**1.726**	**838758**	**200.000 CAL**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\012323 - ICAL MEE.seq
User : DGS
Printed : Jan 23, 2023 12:10:59

File	Sample ID	Acquired
C:\Instarch\PVOC4\Data\012323\010.dat	ICV - 50 ppmV	Jan 23, 2023 12:10:59

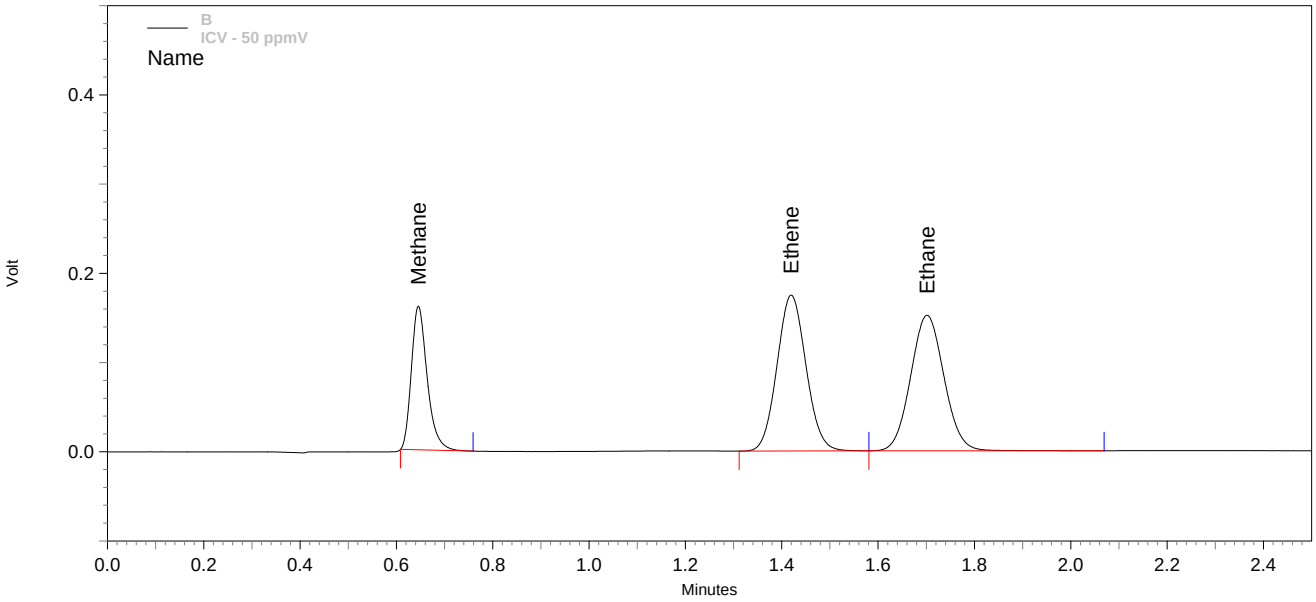
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	54.795	9.591	15.000	**Passed**
Ethene	50.000	51.491	2.983	15.000	**Passed**
Ethane	50.000	51.819	3.637	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: ICV - 50 ppmV
Acquired: Jan 23, 2023 11:37:14
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



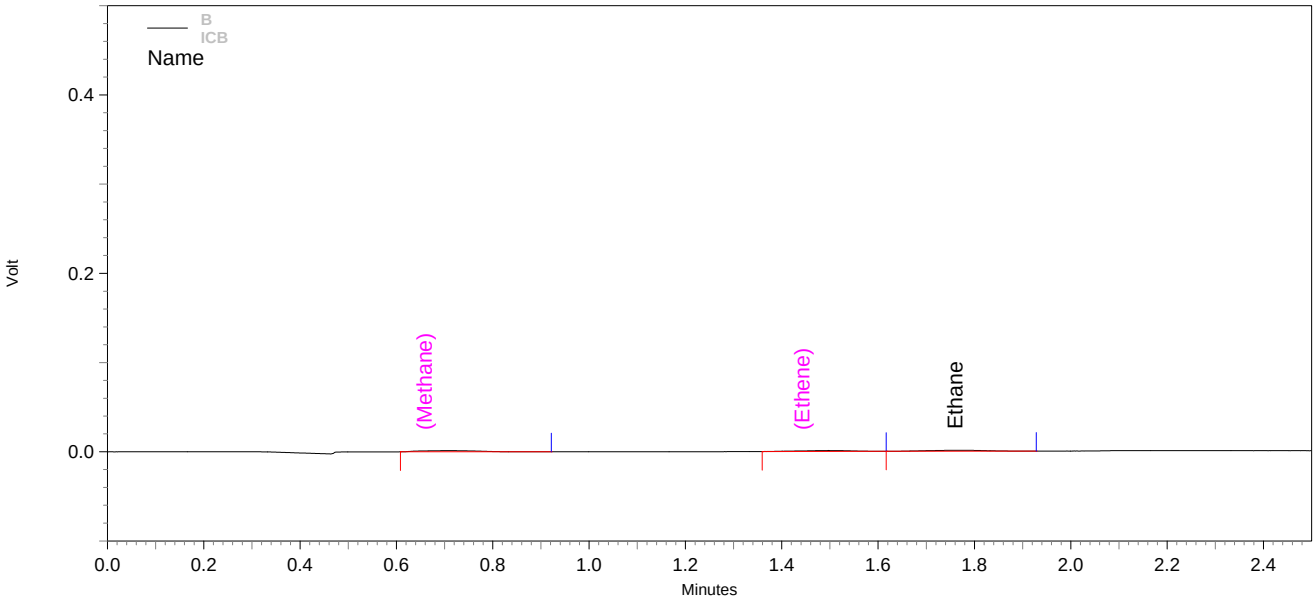
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.646**	**0.658**	**367143**	**54.795**	**ppmV**
2	**Ethene**	**1.419**	**1.442**	**730575**	**51.491**	**ppmV**
3	**Ethane**	**1.702**	**1.726**	**731046**	**51.819**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\012323\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: ICB
Acquired: Jan 23, 2023 11:49:03
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.658**		**0.000 BDL**	**ppmV**
1		**0.710**	**0.000**	**11461**	**0.000**	
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
2		**1.496**	**0.000**	**7017**	**0.000**	
3	**Ethane**	**1.760**	**1.726**	**8269**	**2.901**	**ppmV**

VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS

Data File : C:\Instarch\Data\FEB0123\BFB1.D Vial: 1
Acq On : 1 Feb 2023 9:04 Operator: DGS-RLD
Sample : 268886,BFB, Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.669 to 4.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	10076	PASS
75	95	30	60	51.1	28162	PASS
95	95	100	100	100.0	55154	PASS
96	95	5	9	6.7	3722	PASS
173	174	0.00	2	0.7	340	PASS
174	95	50	100	85.7	47250	PASS
175	174	5	9	6.6	3112	PASS
176	174	95	101	100.7	47590	PASS
177	176	5	9	6.3	3009	PASS

W010323.M Fri Feb 03 09:35:39 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 01 10:08:12 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	83	0.00
2	PT	Dichlorodi	0.2122	0.2400	-13.10	91	0.00
3	PT	Chloromethan	0.2555	0.2626	-2.78	88	0.00
4	PT	VinylChlorid	0.2807	0.3283	-16.96	94	0.00
5	PT	Bromomethane	0.1479	0.1774	-19.95	104	0.00
6	PT	Chloroethane	0.1866	0.2168	-16.18	95	0.00
7	T	Dichloroflmethane	0.4358	0.4649	-6.68	93	0.00
8	PT	Trichlorofma	0.3300	0.4043	-22.52#	97	0.00
9	T	Ethylether	0.1971	0.2098	-6.44	95	0.00
10	T	dichlorotfluoroethan	0.3441	0.3950	-14.79	92	0.00
11	T	propyleneoxide	0.0351	0.0403	-14.81	95	0.00
12	T	Acrolein	0.0544	0.0550	-1.10	83	0.00
13	PT	11dichlorthe	0.2034	0.2379	-16.96	95	0.00
14	PT	Trichlorotfluoroeth	0.2029	0.2476	-22.03#	95	0.00
15	PT	Acetone	0.0844	0.0883#	-4.62	89	0.00
16	T	Iodomethane	0.1776	0.2154	-21.28#	103	0.00
17	PT	Carbon Dislf	0.4944	0.5767	-16.65	96	0.00
18	T	allylchloride	0.2956	0.3196	-8.12	90	0.00
19	PT	methylacetate	0.0708	0.0669#	5.51	84	0.00
20	PT	Methylchlorid	0.2466	0.2426	1.62	92	0.00
21	T	tbutylalcohol	0.0188	0.0181#	3.72	79	0.00
22	T	Acrylonitrile	0.0968	0.1000	-3.31	82	0.00
23	PT	t12dichlorte	0.2245	0.2526	-12.52	95	0.00
24	PT	MtBE	0.5809	0.5958	-2.56	87	0.00
25	T	Hexane	0.3303	0.4251	-28.70#	96	0.00
26	PT	11dichlorota	0.3827	0.4251	-11.08	95	0.00
27	T	Vinylacetate	0.3287	0.4115	-25.19#	90	0.00
28	T	chloroprene	0.3362	0.3878	-15.35	94	0.00
29	T	Diisopether	0.6803	0.7290	-7.16	96	0.00
30	T	ETBE	0.5622	0.5410	3.77	81	0.00
31	T	22dichloropr	0.2341	0.2602	-11.15	95	0.00
32	PT	c12dichlorte	0.2503	0.2662	-6.35	94	0.00
33	PT	2Butanone	0.0337	0.0346#	-2.67	84	0.00
34	T	propionitrile	0.0414	0.0417	-0.72	82	0.00
35	T	Ethylacetate	0.0108	0.0110#	-1.85	87	0.00
36	T	methacrylonitrile	0.1094	0.1116	-2.01	86	0.00
37	T	Bromochlorma	0.1209	0.1272	-5.21	90	0.00
38	T	Tetrahydofur	0.0819	0.0793	3.17	77	0.00
39	PT	Chloroform	0.3831	0.4080	-6.50	92	0.00
40	PT	111trichlota	0.2911	0.3362	-15.49	97	0.00
41	S	SURRDibrflma	0.2565	0.2766	-7.84	89	0.00
42	PT	Cyclohexane	0.3862	0.4613	-19.45	91	0.00
43	PT	Carbtetraclo	0.2299	0.2827	-22.97#	105	0.00
44	T	11dicloprope	0.1145	0.1318	-15.11	95	0.00
45	S	SURR12DCAd4	0.0725	0.0728	-0.41	84	0.00
46	PT	Benzene	0.8799	0.9728	-10.56	92	0.00
47	PT	12dichlorota	0.3208	0.3396	-5.86	91	0.00
48	T	TAME	0.5059	0.5097	-0.75	84	0.00

49	PT	trichloroete	0.2403	0.2676	-11.36	97	0.00
50	PT	methylcyclohexane	0.4125	0.5036	-22.08#	94	0.00
51	PT	12dicloropra	0.2377	0.2535	-6.65	90	0.00
52	T	23Dicl1propene	0.3400	0.3811	-12.09	94	0.00
53	T	Dibromometha	0.1418	0.1527	-7.69	93	0.00
54	T	methylmethacrylate	0.1586	0.1683	-6.12	85	0.00
55	T	14dioxane	0.0034	0.0033#	2.94	83	0.00
56	PT	Bromodiclrma	0.2609	0.2962	-13.53	102	0.00
57	T	2Nitropropane	0.0461	0.0629	-36.44#	120	0.00
58	T	2CLEVE	0.0822	0.0675	17.88	65	0.00
59	PT	c13dicloproe	0.3098	0.3557	-14.82	94	0.00
60	PT	4Meth2Pentan	0.2111	0.2127	-0.76	80	0.00
61	S	SURRd8Tolule	0.9959	1.0424	-4.67	87	0.00
62	PT	Toluene	0.5927	0.6610	-11.52	93	0.00
63	PT	t13Dicloprop	0.2492	0.2793	-12.08	94	0.00
64	T	ethylmethacrylate	0.2665	0.2969	-11.41	89	0.00
65	PT	112Triclotha	0.1703	0.1856	-8.98	91	0.00
66	PT	Tetrachlorte	0.2685	0.3021	-12.51	97	0.00
67	T	13Diclorpropa	0.3695	0.4043	-9.42	92	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	90	0.00
69	PT	2Hexanone	0.1910	0.1869	2.15	79	0.00
70	PT	Clorodibrmta	0.2418	0.2729	-12.86	105	0.00
71	PT	12Dibrometha	0.2399	0.2702	-12.63	98	0.00
72	PT	Chlorobenzen	0.8234	0.8329	-1.15	93	0.00
73	T	1Clhexane	0.4146	0.4235	-2.15	93	0.00
74	T	1112Tetclota	0.2312	0.2392	-3.46	99	0.00
75	PT	Ethylbenzene	1.3099	1.3841	-5.66	93	0.00
76	PT	m p-Xylene	0.5344	0.5499	-2.90	92	0.00
77	PT	o-Xylene	0.5310	0.5462	-2.86	93	0.00
78	PT	Styrene	0.8366	0.8700	-3.99	93	0.00
79	PT	Bromoform	0.1556	0.1732	-11.31	110	0.00
80	PT	Isopropylben	1.2642	1.3612	-7.67	93	0.00
81	T	cyclohexanone	0.0251	0.0255#	-1.59	88	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	93	0.00
83	S	SURR4BrFBenz	0.9449	0.9292	1.66	91	0.00
84	T	Bromobenzene	0.6599	0.6563	0.55	94	0.00
85	PT	1122Tetrclta	0.6908	0.6781	1.84	91	0.00
86	T	123Triclproa	0.8461	0.7951	6.03	86	0.00
87	T	14dichloro2butene	0.2018	0.1887	6.49	89	0.00
88	T	n-Propylbenz	2.7848	2.8739	-3.20	91	0.00
89	T	2chlorotolue	1.6966	1.7129	-0.96	94	0.00
90	T	4chlorotolue	1.9774	1.9813	-0.20	92	0.00
91	T	135Trimebenz	2.0303	2.0521	-1.07	90	0.00
92	T	tbutylbenzen	1.8382	1.8560	-0.97	94	0.00
93	T	124Trimetben	1.9672	1.9869	-1.00	91	0.00
94	T	sbutylbenzen	2.3902	2.5041	-4.77	92	0.00
95	PT	13Diclorbenz	1.1929	1.1618	2.61	92	0.00
96	T	pIsopropylto	2.0953	2.1875	-4.40	92	0.00
97	PT	14dichlorobe	1.2331	1.2014	2.57	94	0.00
98	PT	12dichlorobe	1.1674	1.1266	3.49	92	0.00
99	T	nButylbenzen	1.7537	1.7926	-2.22	91	0.00
100	PT	12dibromo3cl	0.1166	0.1096	6.00	95	0.00
101	T	135Trichlorobenzene	0.8108	0.7764	4.24	90	0.00
102	PT	124Trichlobe	0.7102	0.6622	6.76	87	0.00
103	T	Hexachlorobu	0.2885	0.3044	-5.51	94	0.00
104	T	Naphthalene	1.5622	1.4410	7.76	83	0.00
105	T	123Trichlben	0.6465	0.6178	4.44	90	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W010323.M Fri Feb 03 09:38:47 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 01 10:08:12 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	83	0.00
2	PT	Dichlorodi	10.0000	11.3082	-13.08	91	0.00
3	PT	Chloromethan	10.0000	10.2763	-2.76	88	0.00
4	PT	VinylChlorid	10.0000	11.6939	-16.94	94	0.00
5	PT	Bromomethane	10.0000	11.9892	-19.89	104	0.00
6	PT	Chloroethane	10.0000	11.6187	-16.19	95	0.00
7	T	Dichloroflmethane	10.0000	10.6686	-6.69	93	0.00
8	PT	Trichlorofma	10.0000	12.2517	-22.52#	97	0.00
9	T	Ethylether	10.0000	10.6444	-6.44	95	0.00
10	T	dichlorotfluoroethan	10.0000	11.4778	-14.78	92	0.00
11	T	propyleneoxide	100.0000	114.6087	-14.61	95	0.00
12	T	Acrolein	50.0000	50.4899	-0.98	83	0.00
13	PT	11dichlorthe	10.0000	11.6986	-16.99	95	0.00
14	PT	Trichlorotfluoroeth	20.0000	24.4032	-22.02#	95	0.00
15	PT	Acetone	100.0000	113.3303	-13.33	89	0.00
16	T	Iodomethane	20.0000	21.4595	-7.30	103	0.00
17	PT	Carbon Dislf	20.0000	23.3321	-16.66	96	0.00
18	T	allylchloride	20.0000	21.6269	-8.13	90	0.00
19	PT	methylacetate	10.0000	9.4405	5.59	84	0.00
20	PT	Methylchlorid	10.0000	10.9965	-9.96	92	0.00
21	T	tbutylalcohol	500.0000	480.0321	3.99	79	0.00
22	T	Acrylonitrile	50.0000	51.6536	-3.31	82	0.00
23	PT	t12dichlorte	10.0000	11.2485	-12.48	95	0.00
24	PT	MtBE	10.0000	10.2571	-2.57	87	0.00
25	T	Hexane	20.0000	25.7352	-28.68#	96	0.00
26	PT	11dichlorota	10.0000	11.1071	-11.07	95	0.00
27	T	Vinylacetate	100.0000	116.8801	-16.88	90	0.00
28	T	chloroprene	20.0000	23.0698	-15.35	94	0.00
29	T	Diisopether	10.0000	10.7161	-7.16	96	0.00
30	T	ETBE	10.0000	9.6235	3.77	81	0.00
31	T	22dichloropr	10.0000	10.3866	-3.87	95	0.00
32	PT	c12dichlorte	10.0000	10.6340	-6.34	94	0.00
33	PT	2Butanone	100.0000	102.5586	-2.56	84	0.00
34	T	propionitrile	100.0000	100.6416	-0.64	82	0.00
35	T	Ethylacetate	50.0000	51.0835	-2.17	87	0.00
36	T	methacrylonitrile	20.0000	20.4093	-2.05	86	0.00
37	T	Bromochlorma	10.0000	10.5210	-5.21	90	0.00
38	T	Tetrahydofur	100.0000	96.7628	3.24	77	0.00
39	PT	Chloroform	10.0000	10.6500	-6.50	92	0.00
40	PT	111trichlota	10.0000	11.5504	-15.50	97	0.00
41	S	SURRDibrflma	20.0000	21.5705	-7.85	89	0.00
42	PT	Cyclohexane	10.0000	11.9440	-19.44	91	0.00
43	PT	Carbtetraclo	10.0000	11.3388	-13.39	105	0.00
44	T	11dicloprope	10.0000	11.5091	-15.09	95	0.00
45	S	SURR12DCAd4	20.0000	20.0854	-0.43	84	0.00
46	PT	Benzene	10.0000	11.0559	-10.56	92	0.00
47	PT	12dichlorota	10.0000	10.5845	-5.85	91	0.00
48	T	TAME	10.0000	10.0755	-0.75	84	0.00

49	PT	trichloroete	10.0000	11.1390	-11.39	97	0.00
50	PT	methylcyclohexane	10.0000	12.2060	-22.06#	94	0.00
51	PT	12dicloropra	10.0000	10.6666	-6.67	90	0.00
52	T	23Dicl1propene	10.0000	11.2088	-12.09	94	0.00
53	T	Dibromometha	10.0000	10.7673	-7.67	93	0.00
54	T	methylmethacrylate	10.0000	10.6157	-6.16	85	0.00
55	T	14dioxane	500.0000	490.2045	1.96	83	0.00
56	PT	Bromodiclrma	10.0000	11.3553	-13.55	102	0.00
57	T	2Nitropropane	100.0000	126.1979	-26.20#	120	0.00
58	T	2CLEVE	50.0000	41.0907	17.82	65	0.00
59	PT	c13dicloproe	10.0000	11.4817	-14.82	94	0.00
60	PT	4Meth2Pentan	100.0000	100.7746	-0.77	80	0.00
61	S	SURRd8Tolule	20.0000	20.9340	-4.67	87	0.00
62	PT	Toluene	10.0000	11.1523	-11.52	93	0.00
63	PT	t13Dicloprop	10.0000	10.0644	-0.64	94	0.00
64	T	ethylmethacrylate	20.0000	22.2815	-11.41	89	0.00
65	PT	112Triclotha	10.0000	10.8979	-8.98	91	0.00
66	PT	Tetrachlorte	10.0000	11.2503	-12.50	97	0.00
67	T	13Diclorpropa	10.0000	10.9429	-9.43	92	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	90	0.00
69	PT	2Hexanone	100.0000	97.8759	2.12	79	0.00
70	PT	Clorodibrmta	10.0000	10.4509	-4.51	105	0.00
71	PT	12Dibrometha	10.0000	10.2246	-2.25	98	0.00
72	PT	Chlorobenzen	10.0000	10.1161	-1.16	93	0.00
73	T	1Clhexane	10.0000	10.2148	-2.15	93	0.00
74	T	1112Tetclota	10.0000	9.7714	2.29	99	0.00
75	PT	Ethylbenzene	10.0000	10.5670	-5.67	93	0.00
76	PT	m p-Xylene	20.0000	20.5780	-2.89	92	0.00
77	PT	o-Xylene	10.0000	10.2850	-2.85	93	0.00
78	PT	Styrene	10.0000	10.3982	-3.98	93	0.00
79	PT	Bromoform	10.0000	10.6741	-6.74	110	0.00
80	PT	Isopropylben	10.0000	10.7670	-7.67	93	0.00
81	T	cyclohexanone	200.0000	202.9745	-1.49	88	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	93	0.00
83	S	SURR4BrFBenz	20.0000	19.6669	1.67	91	0.00
84	T	Bromobenzene	10.0000	9.9442	0.56	94	0.00
85	PT	1122Tetrclta	10.0000	9.8168	1.83	91	0.00
86	T	123Triclproa	10.0000	9.3978	6.02	86	0.00
87	T	14dichloro2butene	10.0000	9.3500	6.50	89	0.00
88	T	n-Propylbenz	10.0000	10.3202	-3.20	91	0.00
89	T	2chlorotolue	10.0000	10.0966	-0.97	94	0.00
90	T	4chlorotolue	10.0000	10.0195	-0.20	92	0.00
91	T	135Trimebenz	10.0000	10.1074	-1.07	90	0.00
92	T	tbutylbenzen	10.0000	10.0970	-0.97	94	0.00
93	T	124Trimetben	10.0000	10.1002	-1.00	91	0.00
94	T	sbutylbenzen	10.0000	10.4767	-4.77	92	0.00
95	PT	13Diclorbenz	10.0000	9.7390	2.61	92	0.00
96	T	pIsopropylto	10.0000	10.4400	-4.40	92	0.00
97	PT	14dichlorobe	10.0000	9.7427	2.57	94	0.00
98	PT	12dichlorobe	10.0000	9.6501	3.50	92	0.00
99	T	nButylbenzen	10.0000	10.2219	-2.22	91	0.00
100	PT	12dibromo3cl	10.0000	9.1905	8.09	95	0.00
101	T	135Trichlorobenzene	10.0000	9.5750	4.25	90	0.00
102	PT	124Trichlobe	10.0000	9.3238	6.76	87	0.00
103	T	Hexachlorobu	10.0000	10.5508	-5.51	94	0.00
104	T	Naphthalene	10.0000	9.2242	7.76	83	0.00
105	T	123Trichlben	10.0000	9.5566	4.43	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W010323.M Fri Feb 03 09:39:14 2023

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1089138	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	918565	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	480218	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	301265	21.570	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 108	%		
45) SURR12DCAd4	7.26	102	79343	20.085	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1135351	20.934	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.24	95	446221	19.667	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	130697	11.3082	ug/L	99
3) Chloromethan	2.11	50	143002	10.2763	ug/L	100
4) VinylChlorid	2.24	62	178757	11.6939	ug/L	97
5) Bromomethane	2.71	94	96592	11.9892	ug/L	100
6) Chloroethane	2.87	64	118037	11.6187	ug/L	97
7) Dichloroflmethane	3.18	67	253189	10.6686	ug/L	98
8) Trichlorofma	3.26	101	220174	12.2517	ug/L	99
9) Ethylether	3.71	59	114252	10.6444	ug/L	95
10) dichlorotfluoroethan	3.71	67	215093	11.4778	ug/L	96
11) propyleneoxide	3.76	58	219366	114.6087	ug/L	98
12) Acrolein	3.84	56	149623	50.4899	ug/L	98
13) 11dichlorthe	3.98	96	129574	11.6986	ug/L	99
14) Trichlorotfluoroeth	4.02	101	269691	24.4032	ug/L	99
15) Acetone	4.05	43	480720	113.3303	ug/L	98
16) Iodomethane	4.16	142	234548	21.4595	ug/L	99
17) Carbon Dislf	4.26	76	628137	23.3321	ug/L	99
18) allylchloride	4.47	41	348114	21.6269	ug/L	96
19) methylacetate	4.53	74	36422	9.4405	ug/L	99
20) Methylchlorid	4.63	84	132125	10.9965	ug/L	98
21) tbutylalcohol	4.83	59	491957	480.0321	ug/L	100
22) Acrylonitrile	4.93	53	272361	51.6536	ug/L	99
23) t12dichlorte	5.00	96	137541	11.2485	ug/L	99
24) MtBE	5.03	73	324447	10.2571	ug/L	99
25) Hexane	5.40	57	462939	25.7352	ug/L	97
26) 11dichlorota	5.53	63	231495	11.1071	ug/L	97
27) Vinylacetate	5.62	43	2240782	116.8801	ug/L	99
28) chloroprene	5.66	53	422422	23.0698	ug/L	98
29) Diisopether	5.68	45	396980	10.7161	ug/L	90
30) ETBE	6.13	59	294637	9.6235	ug/L	96
31) 22dichloropr	6.27	77	141715	10.3866	ug/L	99
32) c12dichlorte	6.26	96	144969	10.6340	ug/L	97
33) 2Butanone	6.27	72	188431	102.5586	ug/L	99
34) propionitrile	6.32	54	227138	100.6416	ug/L	98
35) Ethylacetate	6.38	88	29945	51.0835	ug/L #	90
36) methacrylonitrile	6.52	67	121546	20.4093	ug/L	96
37) Bromochlorma	6.55	128	69274	10.5210	ug/L	98
38) Tetrahydofur	6.63	42	431792	96.7628	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.66	83	222162	10.6500	ug/L	98
40) 111trichlota	6.90	97	183098	11.5504	ug/L	100
42) Cyclohexane	6.99	56	251196	11.9440	ug/L	95
43) Carbtetraclo	7.12	119	153948	11.3388	ug/L	95
44) 11dicloprope	7.11	110	71790	11.5091	ug/L	99
46) Benzene	7.35	78	529739	11.0559	ug/L	99
47) 12dichlorota	7.35	62	184915	10.5845	ug/L	98
48) TAME	7.52	73	277572	10.0755	ug/L	94
49) trichloroete	8.16	95	145738	11.1390	ug/L	98
50) methylcyclohexane	8.43	83	274218	12.2060	ug/L	99
51) 12dicloropra	8.42	63	138061	10.6666	ug/L	99
52) 23Dicl1propene	8.48	75	207533	11.2088	ug/L	99
53) Dibromometha	8.56	93	83161	10.7673	ug/L	94
54) methylmethacrylate	8.59	69	91671	10.6157	ug/L	100
55) 14dioxane	8.60	88	89682	490.2045	ug/L	96
56) Bromodiclrma	8.76	83	161306	11.3553	ug/L	99
57) 2Nitropropane	9.02	43	342661	126.1979	ug/L	97
58) 2CLEVE	9.15	63	183895	41.0907	ug/L	98
59) c13dicloproe	9.33	75	193728	11.4817	ug/L	99
60) 4Meth2Pentan	9.54	43	1158544	100.7746	ug/L	99
62) Toluene	9.79	92	359933	11.1523	ug/L	100
63) t13Dicloprop	10.05	75	152104	10.0644	ug/L	98
64) ethylmethacrylate	10.19	69	323322	22.2815	ug/L	99
65) 112Triclotha	10.28	83	101057	10.8979	ug/L	98
66) Tetrachlorte	10.52	166	164527	11.2503	ug/L	99
67) 13Diclorpropa	10.51	76	220175	10.9429	ug/L	99
69) 2Hexanone	10.62	43	858437	97.8759	ug/L	100
70) Clorodibrmta	10.81	129	125351	10.4509	ug/L	99
71) 12Dibrometha	10.96	107	124080	10.2246	ug/L	97
72) Chlorobenzen	11.65	112	382543	10.1161	ug/L	99
73) 1Clhexane	11.63	91	194494	10.2148	ug/L	100
74) 1112Tetclota	11.76	131	109840	9.7714	ug/L	98
75) Ethylbenzene	11.81	91	635701	10.5670	ug/L	100
76) m p-Xylene	11.98	106	505096	20.5780	ug/L	98
77) o-Xylene	12.52	106	250851	10.2850	ug/L	99
78) Styrene	12.53	104	399557	10.3982	ug/L	100
79) Bromoform	12.76	173	79553	10.6741	ug/L	98
80) Isopropylben	13.05	105	625159	10.7670	ug/L	99
81) cyclohexanone	13.12	55	234438	202.9745	ug/L	97
84) Bromobenzene	13.45	156	157576	9.9442	ug/L	98
85) 1122Tetrclta	13.42	83	162820	9.8168	ug/L	96
86) 123Triclproa	13.49	75	190916	9.3978	ug/L	100
87) 14dichloro2butene	13.51	53	45300	9.3500	ug/L	97
88) n-Propylbenz	13.63	91	690057	10.3202	ug/L	99
89) 2chlorotolue	13.74	91	411293	10.0966	ug/L	99
90) 4chlorotolue	13.89	91	475727	10.0195	ug/L	98
91) 135Trimebenz	13.89	105	492739	10.1074	ug/L	97
92) tbutylbenzen	14.35	119	445643	10.0970	ug/L	99
93) 124Trimetben	14.43	105	477071	10.1002	ug/L	100
94) sbutylbenzen	14.68	105	601265	10.4767	ug/L	100
95) 13Diclorbenz	14.81	146	278947	9.7390	ug/L	100
96) pIsopropylto	14.90	119	525231	10.4400	ug/L	99
97) 14dichlorobe	14.94	146	288469	9.7427	ug/L	100
98) 12dichlorobe	15.48	146	270507	9.6501	ug/L	99
99) nButylbenzen	15.49	91	430425	10.2219	ug/L	99
100) 12dibromo3cl	16.58	157	26322	9.1905	ug/L	93
101) 135Trichlorobenzene	16.90	180	186409	9.5750	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	159005	9.3238	ug/L	97
103) Hexachlorobu	17.96	225	73087	10.5508	ug/L	97
104) Naphthalene	18.02	128	345988	9.2242	ug/L	99
105) 123Trichlben	18.33	180	148348	9.5566	ug/L	96

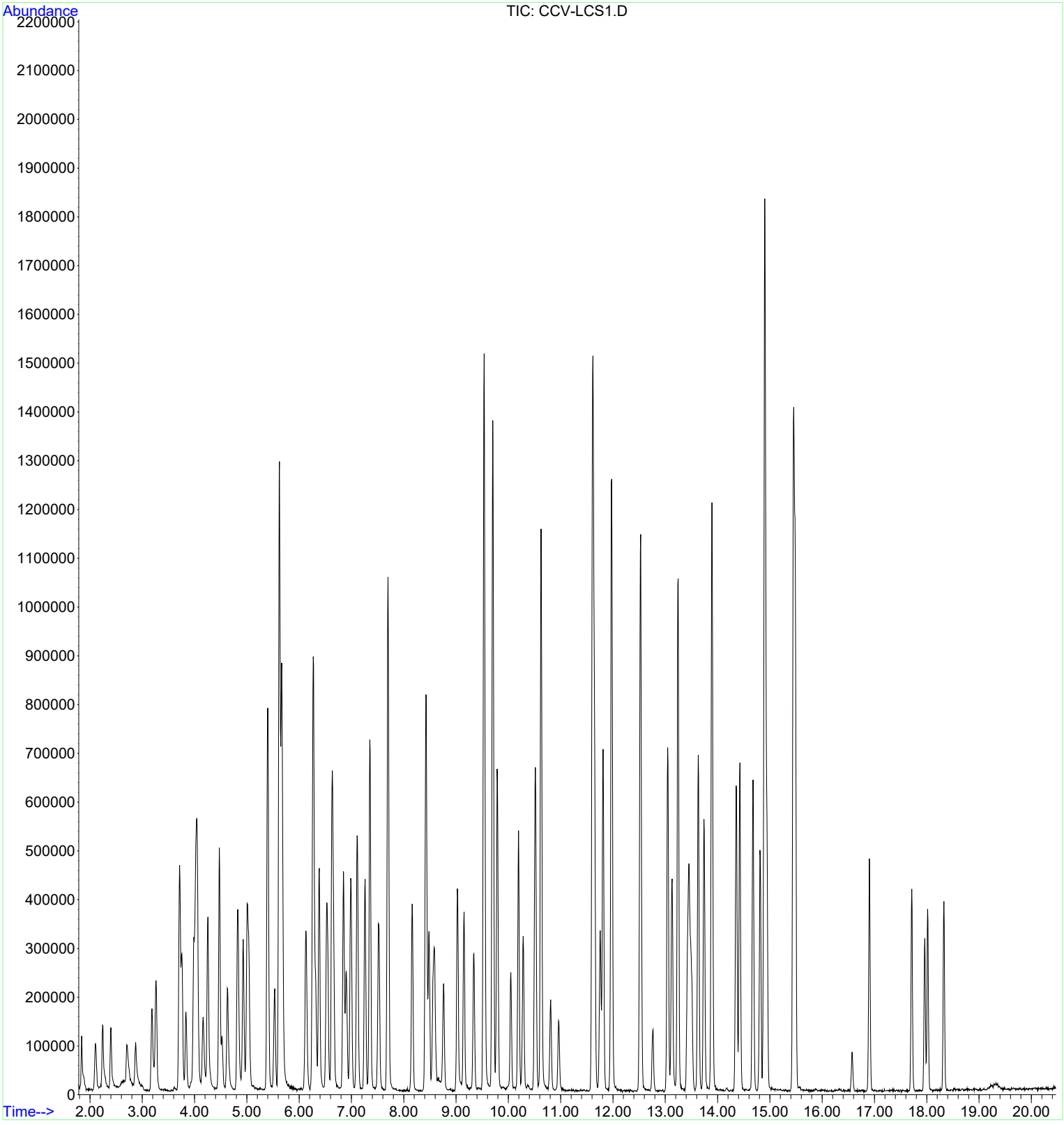
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\CCVF1.D Vial: 25
Acq On : 1 Feb 2023 20:39 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 01 21:00:08 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	84	0.00
2	PT	Dichlorodi	0.2122	0.2157	-1.65	83	0.00
3	PT	Chloromethan	0.2555	0.2455	3.91	83	0.00
4	PT	VinylChlorid	0.2807	0.2981	-6.20	87	0.00
5	PT	Bromomethane	0.1479	0.1553	-5.00	92	0.01
6	PT	Chloroethane	0.1866	0.1952	-4.61	87	0.00
7	T	Dichloroflmethane	0.4358	0.4492	-3.07	91	0.00
8	PT	Trichlorofma	0.3300	0.3781	-14.58	92	0.00
9	T	Ethylether	0.1971	0.2039	-3.45	94	0.00
10	T	dichlorotfluoroethan	0.3441	0.3722	-8.17	88	0.00
11	T	propyleneoxide	0.0351	0.0421	-19.94	101	0.00
12	T	Acrolein	0.0544	0.0561	-3.13	86	0.00
13	PT	11dichlorthe	0.2034	0.2154	-5.90	87	0.00
14	PT	Trichlorotfluoroeth	0.2029	0.2323	-14.49	91	0.00
15	PT	Acetone	0.0844	0.0770#	8.77	79	0.00
16	T	Iodomethane	0.1776	0.1894	-6.64	92	0.00
17	PT	Carbon Dislf	0.4944	0.5079	-2.73	86	0.00
18	T	allylchloride	0.2956	0.2928	0.95	84	0.00
19	PT	methylacetate	0.0708	0.0766#	-8.19	97	0.00
20	PT	Methylchlorid	0.2466	0.2259	8.39	87	0.00
21	T	tbutylalcohol	0.0188	0.0204#	-8.51	91	0.00
22	T	Acrylonitrile	0.0968	0.1002	-3.51	83	0.00
23	PT	t12dichlorte	0.2245	0.2338	-4.14	90	0.00
24	PT	MtBE	0.5809	0.5838	-0.50	87	0.00
25	T	Hexane	0.3303	0.3647	-10.41	84	0.00
26	PT	11dichlorota	0.3827	0.3941	-2.98	90	0.00
27	T	Vinylacetate	0.3287	0.3857	-17.34	86	0.00
28	T	chloroprene	0.3362	0.3674	-9.28	90	0.00
29	T	Diisopether	0.6803	0.6588	3.16	88	0.00
30	T	ETBE	0.5622	0.5710	-1.57	87	0.00
31	T	22dichloropr	0.2341	0.1927	17.68	72	0.00
32	PT	c12dichlorte	0.2503	0.2513	-0.40	90	0.00
33	PT	2Butanone	0.0337	0.0346#	-2.67	85	0.00
34	T	propionitrile	0.0414	0.0420	-1.45	83	0.00
35	T	Ethylacetate	0.0108	0.0113#	-4.63	91	0.00
36	T	methacrylonitrile	0.1094	0.1144	-4.57	90	0.00
37	T	Bromochlorma	0.1209	0.1259	-4.14	91	0.00
38	T	Tetrahydofur	0.0819	0.0813	0.73	81	0.00
39	PT	Chloroform	0.3831	0.3795	0.94	87	0.00
40	PT	111trichlota	0.2911	0.3019	-3.71	88	0.00
41	S	SURRDibrflma	0.2565	0.2650	-3.31	87	0.00
42	PT	Cyclohexane	0.3862	0.4384	-13.52	88	0.00
43	PT	Carbtetraclo	0.2299	0.2343	-1.91	88	0.00
44	T	11dicloprope	0.1145	0.1209	-5.59	89	0.00
45	S	SURR12DCAd4	0.0725	0.0722	0.41	84	0.00
46	PT	Benzene	0.8799	0.9223	-4.82	89	0.00
47	PT	12dichlorota	0.3208	0.3357	-4.64	92	0.00
48	T	TAME	0.5059	0.5210	-2.98	87	0.00

49	PT	trichloroete	0.2403	0.2554	-6.28	94	0.00
50	PT	methylcyclohexane	0.4125	0.4662	-13.02	88	0.00
51	PT	12dicloropra	0.2377	0.2419	-1.77	87	0.00
52	T	23Dicl1propene	0.3400	0.3657	-7.56	91	0.00
53	T	Dibromometha	0.1418	0.1440	-1.55	90	0.00
54	T	methylmethacrylate	0.1586	0.1663	-4.85	85	0.00
55	T	14dioxane	0.0034	0.0034#	0.00	88	0.00
56	PT	Bromodiclrma	0.2609	0.2673	-2.45	93	0.00
57	T	2Nitropropane	0.0461	0.0520	-12.80	101	0.00
58	T	2CLEVE	0.0822	0.0813	1.09	80	0.00
59	PT	c13dicloproe	0.3098	0.3068	0.97	82	0.00
60	PT	4Meth2Pentan	0.2111	0.2197	-4.07	84	0.00
61	S	SURRd8Tolule	0.9959	1.0456	-4.99	89	0.00
62	PT	Toluene	0.5927	0.6193	-4.49	89	0.00
63	PT	t13Dicloprop	0.2492	0.2470	0.88	85	0.00
64	T	ethylmethacrylate	0.2665	0.2956	-10.92	90	0.00
65	PT	112Triclotha	0.1703	0.1811	-6.34	90	0.00
66	PT	Tetrachlorte	0.2685	0.2846	-6.00	93	0.00
67	T	13Diclorpropa	0.3695	0.3780	-2.30	87	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	94	0.00
69	PT	2Hexanone	0.1910	0.1871	2.04	82	0.00
70	PT	Clorodibrmta	0.2418	0.2366	2.15	94	0.00
71	PT	12Dibrometha	0.2399	0.2463	-2.67	93	0.00
72	PT	Chlorobenzen	0.8234	0.7839	4.80	91	0.00
73	T	1Clhexane	0.4146	0.3875	6.54	88	0.00
74	T	1112Tetclota	0.2312	0.2124	8.13	91	0.00
75	PT	Ethylbenzene	1.3099	1.2961	1.05	90	0.00
76	PT	m p-Xylene	0.5344	0.5154	3.56	89	0.00
77	PT	o-Xylene	0.5310	0.5121	3.56	91	0.00
78	PT	Styrene	0.8366	0.8065	3.60	90	0.00
79	PT	Bromoform	0.1556	0.1429	8.16	94	0.00
80	PT	Isopropylben	1.2642	1.2577	0.51	89	0.00
81	T	cyclohexanone	0.0251	0.0164#	34.66	58	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	96	0.00
83	S	SURR4BrFBenz	0.9449	0.9507	-0.61	96	0.00
84	T	Bromobenzene	0.6599	0.6284	4.77	93	0.00
85	PT	1122Tetrclta	0.6908	0.6247	9.57	87	0.00
86	T	123Triclproa	0.8461	0.7556	10.70	85	0.00
87	T	14dichloro2butene	0.2018	0.1726	14.47	85	0.00
88	T	n-Propylbenz	2.7848	2.7447	1.44	90	0.00
89	T	2chlorotolue	1.6966	1.6032	5.51	91	0.00
90	T	4chlorotolue	1.9774	1.8482	6.53	89	0.00
91	T	135Trimebenz	2.0303	1.9776	2.60	90	0.00
92	T	tbutylbenzen	1.8382	1.7499	4.80	91	0.00
93	T	124Trimetben	1.9672	1.8695	4.97	88	0.00
94	T	sbutylbenzen	2.3902	2.3462	1.84	89	0.00
95	PT	13Diclorbenz	1.1929	1.1093	7.01	91	0.00
96	T	pIsopropylto	2.0953	2.0606	1.66	89	0.00
97	PT	14dichlorobe	1.2331	1.1353	7.93	92	0.00
98	PT	12dichlorobe	1.1674	1.0741	7.99	91	0.00
99	T	nButylbenzen	1.7537	1.6851	3.91	89	0.00
100	PT	12dibromo3cl	0.1166	0.1006	13.72	90	0.00
101	T	135Trichlorobenzene	0.8108	0.7276	10.26	88	0.00
102	PT	124Trichlobe	0.7102	0.6605	7.00	90	0.00
103	T	Hexachlorobu	0.2885	0.2586	10.36	83	0.00
104	T	Naphthalene	1.5622	1.4720	5.77	87	0.00
105	T	123Trichlben	0.6465	0.5984	7.44	90	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W010323.M Fri Feb 03 09:47:24 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\CCVF1.D Vial: 25
Acq On : 1 Feb 2023 20:39 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 01 21:00:08 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	84	0.00
2	PT	Dichlorodi	10.0000	10.1634	-1.63	83	0.00
3	PT	Chloromethan	10.0000	9.6084	3.92	83	0.00
4	PT	VinylChlorid	10.0000	10.6211	-6.21	87	0.00
5	PT	Bromomethane	10.0000	10.4954	-4.95	92	0.01
6	PT	Chloroethane	10.0000	10.4633	-4.63	87	0.00
7	T	Dichloroflmethane	10.0000	10.3073	-3.07	91	0.00
8	PT	Trichlorofma	10.0000	11.4563	-14.56	92	0.00
9	T	Ethylether	10.0000	10.3451	-3.45	94	0.00
10	T	dichlorotfluoroethan	10.0000	10.8172	-8.17	88	0.00
11	T	propyleneoxide	100.0000	119.6406	-19.64	101	0.00
12	T	Acrolein	50.0000	51.5135	-3.03	86	0.00
13	PT	11dichlorthe	10.0000	10.5889	-5.89	87	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.8936	-14.47	91	0.00
15	PT	Acetone	100.0000	98.0189	1.98	79	0.00
16	T	Iodomethane	20.0000	19.2197	3.90	92	0.00
17	PT	Carbon Dislf	20.0000	20.5489	-2.74	86	0.00
18	T	allylchloride	20.0000	19.8139	0.93	84	0.00
19	PT	methylacetate	10.0000	10.8072	-8.07	97	0.00
20	PT	Methylchlorid	10.0000	10.2060	-2.06	87	0.00
21	T	tbutylalcohol	500.0000	542.9896	-8.60	91	0.00
22	T	Acrylonitrile	50.0000	51.7363	-3.47	83	0.00
23	PT	t12dichlorte	10.0000	10.4137	-4.14	90	0.00
24	PT	MtBE	10.0000	10.0503	-0.50	87	0.00
25	T	Hexane	20.0000	22.0821	-10.41	84	0.00
26	PT	11dichlorota	10.0000	10.2976	-2.98	90	0.00
27	T	Vinylacetate	100.0000	108.7244	-8.72	86	0.00
28	T	chloroprene	20.0000	21.8511	-9.26	90	0.00
29	T	Diisopether	10.0000	9.6846	3.15	88	0.00
30	T	ETBE	10.0000	10.1558	-1.56	87	0.00
31	T	22dichloropr	10.0000	7.8945	21.06	72	0.00
32	PT	c12dichlorte	10.0000	10.0392	-0.39	90	0.00
33	PT	2Butanone	100.0000	102.4287	-2.43	85	0.00
34	T	propionitrile	100.0000	101.3049	-1.30	83	0.00
35	T	Ethylacetate	50.0000	52.6551	-5.31	91	0.00
36	T	methacrylonitrile	20.0000	20.9164	-4.58	90	0.00
37	T	Bromochlorma	10.0000	10.4109	-4.11	91	0.00
38	T	Tetrahydofur	100.0000	99.2289	0.77	81	0.00
39	PT	Chloroform	10.0000	9.9062	0.94	87	0.00
40	PT	111trichlota	10.0000	10.3697	-3.70	88	0.00
41	S	SURRDibrflma	20.0000	20.6684	-3.34	87	0.00
42	PT	Cyclohexane	10.0000	11.3521	-13.52	88	0.00
43	PT	Carbtetraclo	10.0000	9.5476	4.52	88	0.00
44	T	11dicloprope	10.0000	10.5548	-5.55	89	0.00
45	S	SURR12DCAd4	20.0000	19.9070	0.46	84	0.00
46	PT	Benzene	10.0000	10.4824	-4.82	89	0.00
47	PT	12dichlorota	10.0000	10.4647	-4.65	92	0.00
48	T	TAME	10.0000	10.2992	-2.99	87	0.00

49	PT	trichloroete	10.0000	10.6303	-6.30	94	0.00
50	PT	methylcyclohexane	10.0000	11.3014	-13.01	88	0.00
51	PT	12dicloropra	10.0000	10.1793	-1.79	87	0.00
52	T	23Dicl1propene	10.0000	10.7547	-7.55	91	0.00
53	T	Dibromometha	10.0000	10.1564	-1.56	90	0.00
54	T	methylmethacrylate	10.0000	10.4845	-4.85	85	0.00
55	T	14dioxane	500.0000	512.5330	-2.51	88	0.00
56	PT	Bromodiclrma	10.0000	10.2459	-2.46	93	0.00
57	T	2Nitropropane	100.0000	106.0449	-6.04	101	0.00
58	T	2CLEVE	50.0000	49.4535	1.09	80	0.00
59	PT	c13dicloproe	10.0000	9.9006	0.99	82	0.00
60	PT	4Meth2Pentan	100.0000	104.0713	-4.07	84	0.00
61	S	SURRd8Tolule	20.0000	20.9974	-4.99	89	0.00
62	PT	Toluene	10.0000	10.4492	-4.49	89	0.00
63	PT	t13Dicloprop	10.0000	8.9958	10.04	85	0.00
64	T	ethylmethacrylate	20.0000	22.1842	-10.92	90	0.00
65	PT	112Triclotha	10.0000	10.6370	-6.37	90	0.00
66	PT	Tetrachlorte	10.0000	10.5961	-5.96	93	0.00
67	T	13Diclorpropa	10.0000	10.2297	-2.30	87	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	94	0.00
69	PT	2Hexanone	100.0000	97.9832	2.02	82	0.00
70	PT	Clorodibrmta	10.0000	9.1535	8.47	94	0.00
71	PT	12Dibrometha	10.0000	9.3626	6.37	93	0.00
72	PT	Chlorobenzen	10.0000	9.5208	4.79	91	0.00
73	T	1Clhexane	10.0000	9.3466	6.53	88	0.00
74	T	1112Tetclota	10.0000	8.7932	12.07	91	0.00
75	PT	Ethylbenzene	10.0000	9.8951	1.05	90	0.00
76	PT	m p-Xylene	20.0000	19.2874	3.56	89	0.00
77	PT	o-Xylene	10.0000	9.6431	3.57	91	0.00
78	PT	Styrene	10.0000	9.6403	3.60	90	0.00
79	PT	Bromoform	10.0000	9.0121	9.88	94	0.00
80	PT	Isopropylben	10.0000	9.9483	0.52	89	0.00
81	T	cyclohexanone	200.0000	130.2212	34.89	58	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	96	0.00
83	S	SURR4BrFBenz	20.0000	20.1221	-0.61	96	0.00
84	T	Bromobenzene	10.0000	9.5226	4.77	93	0.00
85	PT	1122Tetrclta	10.0000	9.0441	9.56	87	0.00
86	T	123Triclproa	10.0000	8.9301	10.70	85	0.00
87	T	14dichloro2butene	10.0000	8.5563	14.44	85	0.00
88	T	n-Propylbenz	10.0000	9.8561	1.44	90	0.00
89	T	2chlorotolue	10.0000	9.4498	5.50	91	0.00
90	T	4chlorotolue	10.0000	9.3463	6.54	89	0.00
91	T	135Trimebenz	10.0000	9.7402	2.60	90	0.00
92	T	tbutylbenzen	10.0000	9.5200	4.80	91	0.00
93	T	124Trimetben	10.0000	9.5037	4.96	88	0.00
94	T	sbutylbenzen	10.0000	9.8159	1.84	89	0.00
95	PT	13Diclorbenz	10.0000	9.2997	7.00	91	0.00
96	T	pIsopropylto	10.0000	9.8346	1.65	89	0.00
97	PT	14dichlorobe	10.0000	9.2064	7.94	92	0.00
98	PT	12dichlorobe	10.0000	9.2007	7.99	91	0.00
99	T	nButylbenzen	10.0000	9.6088	3.91	89	0.00
100	PT	12dibromo3cl	10.0000	8.5387	14.61	90	0.00
101	T	135Trichlorobenzene	10.0000	8.9733	10.27	88	0.00
102	PT	124Trichlobe	10.0000	9.2991	7.01	90	0.00
103	T	Hexachlorobu	10.0000	8.9629	10.37	83	0.00
104	T	Naphthalene	10.0000	9.4228	5.77	87	0.00
105	T	123Trichlben	10.0000	9.2560	7.44	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W010323.M Fri Feb 03 09:47:59 2023

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCVF1.D Vial: 25
Acq On : 1 Feb 2023 20:39 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 21:00:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1106701	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	953400	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	497487	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	293321	20.668 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.25	102	79906	19.907 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100 %		
61) SURRd8Tolule	9.70	98	1157154	20.997 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105 %		
83) SURR4BrFBenz	13.24	95	472967	20.122 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	119360	10.1634 ug/L	99
3) Chloromethan	2.11	50	135863	9.6084 ug/L	100
4) VinylChlorid	2.24	62	164975	10.6211 ug/L	97
5) Bromomethane	2.72	94	85920	10.4954 ug/L	100
6) Chloroethane	2.87	64	108013	10.4633 ug/L	98
7) Dichloroflmethane	3.18	67	248560	10.3073 ug/L	98
8) Trichlorofma	3.26	101	209200	11.4563 ug/L	100
9) Ethylether	3.70	59	112830	10.3451 ug/L	96
10) dichlorotfluoroethan	3.72	67	205982	10.8172 ug/L	98
11) propyleneoxide	3.76	58	232690	119.6406 ug/L	97
12) Acrolein	3.84	56	155118	51.5135 ug/L	94
13) 11dichlorthe	3.99	96	119174	10.5889 ug/L	97
14) Trichlorotfluoroeth	4.03	101	257088	22.8936 ug/L	99
15) Acetone	4.05	43	426264	98.0189 ug/L	98
16) Iodomethane	4.16	142	209616	19.2197 ug/L	99
17) Carbon Dislf	4.26	76	562129	20.5489 ug/L	99
18) allylchloride	4.47	41	324074	19.8139 ug/L	98
19) methylacetate	4.52	74	42367	10.8072 ug/L	100
20) Methylchlorid	4.63	84	125020	10.2060 ug/L	97
21) tbutylalcohol	4.82	59	565452	542.9896 ug/L	94
22) Acrylonitrile	4.93	53	277196	51.7363 ug/L	99
23) t12dichlorte	5.00	96	129386	10.4137 ug/L	99
24) MtBE	5.03	73	323033	10.0503 ug/L	98
25) Hexane	5.40	57	403631	22.0821 ug/L	98
26) 11dichlorota	5.53	63	218083	10.2976 ug/L	100
27) Vinylacetate	5.62	43	2134419	108.7244 ug/L	100
28) chloroprene	5.66	53	406559	21.8511 ug/L	96
29) Diisopether	5.68	45	364553	9.6846 ug/L	95
30) ETBE	6.13	59	315948	10.1558 ug/L	99
31) 22dichloropr	6.27	77	106644	7.8945 ug/L	97
32) c12dichlorte	6.26	96	139068	10.0392 ug/L	94
33) 2Butanone	6.28	72	191227	102.4287 ug/L	97
34) propionitrile	6.32	54	232322	101.3049 ug/L	98
35) Ethylacetate	6.38	88	31364	52.6551 ug/L	97
36) methacrylonitrile	6.52	67	126575	20.9164 ug/L	94
37) Bromochlorma	6.55	128	69654	10.4109 ug/L	96
38) Tetrahydofur	6.63	42	449937	99.2289 ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCVF1.D Vial: 25
Acq On : 1 Feb 2023 20:39 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 21:00:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	209978	9.9062	ug/L	95
40)	111trichlota	6.90	97	167032	10.3697	ug/L	98
42)	Cyclohexane	6.99	56	242596	11.3521	ug/L	99
43)	Carbtetraclo	7.12	119	129631	9.5476	ug/L	94
44)	11dicloprope	7.11	110	66899	10.5548	ug/L	97
46)	Benzene	7.35	78	510355	10.4824	ug/L	99
47)	12dichlorota	7.36	62	185771	10.4647	ug/L	97
48)	TAME	7.52	73	288308	10.2992	ug/L	97
49)	trichloroete	8.16	95	141324	10.6303	ug/L	96
50)	methylcyclohexane	8.43	83	257989	11.3014	ug/L	100
51)	12dicloropra	8.42	63	133878	10.1793	ug/L	98
52)	23Dicl1propene	8.48	75	202336	10.7547	ug/L	97
53)	Dibromometha	8.56	93	79707	10.1564	ug/L	96
54)	methylmethacrylate	8.59	69	91998	10.4845	ug/L	97
55)	14dioxane	8.60	88	95279	512.5330	ug/L	93
56)	Bromodiclrma	8.76	83	147894	10.2459	ug/L	99
57)	2Nitropropane	9.02	43	287946	106.0449	ug/L	97
58)	2CLEVE	9.15	63	224890	49.4535	ug/L	99
59)	c13dicloproe	9.33	75	169744	9.9006	ug/L	97
60)	4Meth2Pentan	9.54	43	1215737	104.0713	ug/L	100
62)	Toluene	9.79	92	342678	10.4492	ug/L	98
63)	t13Dicloprop	10.05	75	136702	8.9958	ug/L	98
64)	ethylmethacrylate	10.19	69	327101	22.1842	ug/L	98
65)	112Triclotha	10.28	83	100229	10.6370	ug/L	98
66)	Tetrachlorte	10.52	166	157459	10.5961	ug/L	97
67)	13Diclorpropa	10.50	76	209144	10.2297	ug/L	99
69)	2Hexanone	10.62	43	891969	97.9832	ug/L	99
70)	Clorodibrmta	10.81	129	112773	9.1535	ug/L	99
71)	12Dibrometha	10.97	107	117425	9.3626	ug/L	99
72)	Chlorobenzen	11.65	112	373686	9.5208	ug/L	98
73)	1Clhexane	11.63	91	184712	9.3466	ug/L	100
74)	1112Tetclota	11.76	131	101234	8.7932	ug/L	99
75)	Ethylbenzene	11.81	91	617858	9.8951	ug/L	100
76)	m p-Xylene	11.98	106	491371	19.2874	ug/L	97
77)	o-Xylene	12.52	106	244114	9.6431	ug/L	99
78)	Styrene	12.53	104	384479	9.6403	ug/L	100
79)	Bromoform	12.77	173	68104	9.0121	ug/L	97
80)	Isopropylben	13.05	105	599528	9.9483	ug/L	99
81)	cyclohexanone	13.13	55	156111	130.2212	ug/L	99
84)	Bromobenzene	13.45	156	156322	9.5226	ug/L	98
85)	1122Tetrclta	13.42	83	155399	9.0441	ug/L	99
86)	123Triclproa	13.48	75	187939	8.9301	ug/L	97
87)	14dichloro2butene	13.51	53	42945	8.5563	ug/L	97
88)	n-Propylbenz	13.63	91	682719	9.8561	ug/L	100
89)	2chlorotolue	13.75	91	398787	9.4498	ug/L	100
90)	4chlorotolue	13.89	91	459723	9.3463	ug/L	99
91)	135Trimebenz	13.89	105	491913	9.7402	ug/L	99
92)	tbutylbenzen	14.35	119	435285	9.5200	ug/L	99
93)	124Trimetben	14.42	105	465037	9.5037	ug/L	99
94)	sbutylbenzen	14.68	105	583602	9.8159	ug/L	99
95)	13Diclorbenz	14.82	146	275942	9.2997	ug/L	97
96)	pIsopropylto	14.89	119	512563	9.8346	ug/L	98
97)	14dichlorobe	14.94	146	282392	9.2064	ug/L	99
98)	12dichlorobe	15.48	146	267183	9.2007	ug/L	99
99)	nButylbenzen	15.49	91	419158	9.6088	ug/L	100
100)	12dibromo3cl	16.57	157	25016	8.5387	ug/L	98
101)	135Trichlorobenzene	16.90	180	180976	8.9733	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCVF1.D Vial: 25
Acq On : 1 Feb 2023 20:39 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 21:00:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	164287	9.2991	ug/L	99
103)	Hexachlorobu	17.96	225	64320	8.9629	ug/L	92
104)	Naphthalene	18.02	128	366149	9.4228	ug/L	99
105)	123Trichlben	18.33	180	148850	9.2560	ug/L	98

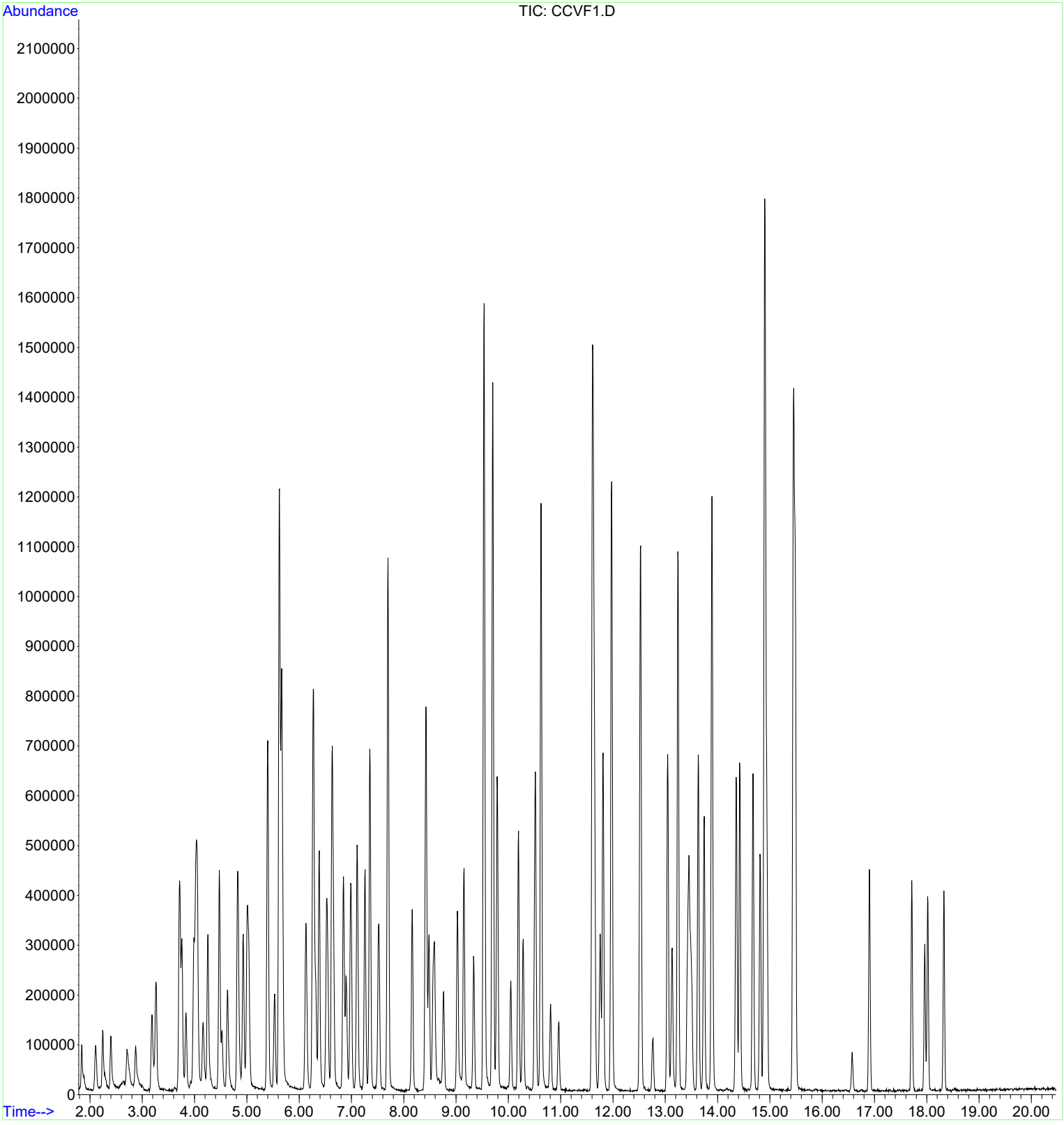
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCVF1.D Vial: 25
Acq On : 1 Feb 2023 20:39 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 21:00:08 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Data File : C:\Instarch\Data\FEB0123\BFB2.D Vial: 26
Acq On : 2 Feb 2023 7:22 Operator: DGS-RLD
Sample : 268886,BFB, Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.657 to 4.669 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	9003	PASS
75	95	30	60	48.6	25250	PASS
95	95	100	100	100.0	52002	PASS
96	95	5	9	6.0	3125	PASS
173	174	0.00	2	0.5	220	PASS
174	95	50	100	86.4	44914	PASS
175	174	5	9	8.0	3588	PASS
176	174	95	101	100.4	45077	PASS
177	176	5	9	5.8	2619	PASS

W010323.M Fri Feb 03 09:36:51 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS2.D Vial: 28
Acq On : 2 Feb 2023 8:07 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 02 08:27:52 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	83	0.00
2	PT	Dichlorodi	0.2122	0.2294	-8.11	88	0.00
3	PT	Chloromethan	0.2555	0.2548	0.27	86	0.00
4	PT	VinylChlorid	0.2807	0.3124	-11.29	90	0.00
5	PT	Bromomethane	0.1479	0.1722	-16.43	102	0.00
6	PT	Chloroethane	0.1866	0.2108	-12.97	93	0.00
7	T	Dichloroflmethane	0.4358	0.4673	-7.23	94	0.00
8	PT	Trichlorofma	0.3300	0.3946	-19.58	96	0.00
9	T	Ethylether	0.1971	0.2003	-1.62	91	0.00
10	T	dichlorotfluoroethan	0.3441	0.3867	-12.38	91	0.00
11	T	propyleneoxide	0.0351	0.0397	-13.11	95	0.00
12	T	Acrolein	0.0544	0.0541	0.55	82	0.00
13	PT	11dichlorthe	0.2034	0.2210	-8.65	89	0.00
14	PT	Trichlorotfluoroeth	0.2029	0.2403	-18.43	93	0.00
15	PT	Acetone	0.0844	0.0854#	-1.18	87	0.00
16	T	Iodomethane	0.1776	0.2163	-21.79#	104	0.00
17	PT	Carbon Dislf	0.4944	0.5373	-8.68	90	0.00
18	T	allylchloride	0.2956	0.3100	-4.87	88	0.00
19	PT	methylacetate	0.0708	0.0696#	1.69	88	0.00
20	PT	Methylchlorid	0.2466	0.2362	4.22	90	0.00
21	T	tbutylalcohol	0.0188	0.0185#	1.60	82	0.00
22	T	Acrylonitrile	0.0968	0.0988	-2.07	81	0.00
23	PT	t12dichlorte	0.2245	0.2428	-8.15	93	0.00
24	PT	MtBE	0.5809	0.5869	-1.03	86	0.00
25	T	Hexane	0.3303	0.3854	-16.68	88	0.00
26	PT	11dichlorota	0.3827	0.4011	-4.81	91	-0.01
27	T	Vinylacetate	0.3287	0.3977	-20.99#	88	0.00
28	T	chloroprene	0.3362	0.3675	-9.31	90	0.00
29	T	Diisopether	0.6803	0.6659	2.12	88	0.00
30	T	ETBE	0.5622	0.5868	-4.38	88	0.00
31	T	22dichloropr	0.2341	0.2584	-10.38	95	0.00
32	PT	c12dichlorte	0.2503	0.2531	-1.12	90	0.00
33	PT	2Butanone	0.0337	0.0343#	-1.78	84	0.00
34	T	propionitrile	0.0414	0.0414	0.00	82	0.00
35	T	Ethylacetate	0.0108	0.0104#	3.70	82	0.00
36	T	methacrylonitrile	0.1094	0.1096	-0.18	86	0.00
37	T	Bromochlorma	0.1209	0.1283	-6.12	92	0.00
38	T	Tetrahydofur	0.0819	0.0773	5.62	76	0.00
39	PT	Chloroform	0.3831	0.3990	-4.15	91	0.00
40	PT	111trichlota	0.2911	0.3365	-15.60	97	0.00
41	S	SURRDibrflma	0.2565	0.2684	-4.64	87	0.00
42	PT	Cyclohexane	0.3862	0.4424	-14.55	88	0.00
43	PT	Carbtetraclo	0.2299	0.2717	-18.18	102	0.00
44	T	11dicloprope	0.1145	0.1271	-11.00	92	0.00
45	S	SURR12DCAd4	0.0725	0.0706	2.62	82	0.00
46	PT	Benzene	0.8799	0.9320	-5.92	89	0.00
47	PT	12dichlorota	0.3208	0.3387	-5.58	92	0.00
48	T	TAME	0.5059	0.5203	-2.85	87	0.00

49	PT	trichloroete	0.2403	0.2494	-3.79	91	0.00
50	PT	methylcyclohexane	0.4125	0.4898	-18.74	92	0.00
51	PT	12dicloropra	0.2377	0.2463	-3.62	88	0.00
52	T	23Dicl1propene	0.3400	0.3706	-9.00	92	0.00
53	T	Dibromometha	0.1418	0.1531	-7.97	94	0.00
54	T	methylmethacrylate	0.1586	0.1667	-5.11	85	0.00
55	T	14dioxane	0.0034	0.0032#	5.88	81	0.00
56	PT	Bromodiclrma	0.2609	0.2811	-7.74	97	0.00
57	T	2Nitropropane	0.0461	0.0586	-27.11#	113	0.00
58	T	2CLEVE	0.0822	0.0740	9.98	72	0.00
59	PT	c13dicloproe	0.3098	0.3460	-11.68	92	0.00
60	PT	4Meth2Pentan	0.2111	0.2101	0.47	80	0.00
61	S	SURRd8Tolule	0.9959	1.0477	-5.20	88	0.00
62	PT	Toluene	0.5927	0.6363	-7.36	90	0.00
63	PT	t13Dicloprop	0.2492	0.2759	-10.71	94	0.00
64	T	ethylmethacrylate	0.2665	0.2891	-8.48	87	0.00
65	PT	112Triclotha	0.1703	0.1805	-5.99	89	0.00
66	PT	Tetrachlorte	0.2685	0.2913	-8.49	95	0.00
67	T	13Diclorpropa	0.3695	0.3938	-6.58	90	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	95	0.00
69	PT	2Hexanone	0.1910	0.1786	6.49	79	0.00
70	PT	Clorodibrmta	0.2418	0.2541	-5.09	102	0.00
71	PT	12Dibrometha	0.2399	0.2476	-3.21	94	0.00
72	PT	Chlorobenzen	0.8234	0.7801	5.26	92	0.00
73	T	1Clhexane	0.4146	0.3859	6.92	89	0.00
74	T	1112Tetclota	0.2312	0.2342	-1.30	102	0.00
75	PT	Ethylbenzene	1.3099	1.2951	1.13	91	0.00
76	PT	m p-Xylene	0.5344	0.5223	2.26	91	0.00
77	PT	o-Xylene	0.5310	0.5028	5.31	90	0.00
78	PT	Styrene	0.8366	0.8119	2.95	91	0.00
79	PT	Bromoform	0.1556	0.1581	-1.61	105	0.00
80	PT	Isopropylben	1.2642	1.2367	2.18	88	0.00
81	T	cyclohexanone	0.0251	0.0244#	2.79	88	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	96	0.00
83	S	SURR4BrFBenz	0.9449	0.9292	1.66	94	0.00
84	T	Bromobenzene	0.6599	0.6118	7.29	90	0.00
85	PT	1122Tetrclta	0.6908	0.6675	3.37	93	0.00
86	T	123Triclproa	0.8461	0.7798	7.84	88	0.00
87	T	14dichloro2butene	0.2018	0.1757	12.93	86	0.00
88	T	n-Propylbenz	2.7848	2.7391	1.64	89	0.00
89	T	2chlorotolue	1.6966	1.5801	6.87	90	0.00
90	T	4chlorotolue	1.9774	1.8303	7.44	88	0.00
91	T	135Trimebenz	2.0303	1.9683	3.05	89	0.00
92	T	tbutylbenzen	1.8382	1.7508	4.75	92	0.00
93	T	124Trimetben	1.9672	1.8738	4.75	89	0.00
94	T	sbutylbenzen	2.3902	2.3379	2.19	89	0.00
95	PT	13Diclorbenz	1.1929	1.1077	7.14	91	0.00
96	T	pIsopropylto	2.0953	2.0325	3.00	88	0.00
97	PT	14dichlorobe	1.2331	1.1352	7.94	92	0.00
98	PT	12dichlorobe	1.1674	1.0720	8.17	91	0.00
99	T	nButylbenzen	1.7537	1.6505	5.88	87	0.00
100	PT	12dibromo3cl	0.1166	0.1083	7.12	97	0.00
101	T	135Trichlorobenzene	0.8108	0.7366	9.15	89	0.00
102	PT	124Trichlobe	0.7102	0.6247	12.04	85	0.00
103	T	Hexachlorobu	0.2885	0.2769	4.02	89	0.00
104	T	Naphthalene	1.5622	1.3756	11.94	82	0.00
105	T	123Trichlben	0.6465	0.5729	11.38	87	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W010323.M Fri Feb 03 09:45:31 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS2.D Vial: 28
Acq On : 2 Feb 2023 8:07 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 02 08:27:52 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	83	0.00
2	PT	Dichlorodi	10.0000	10.8109	-8.11	88	0.00
3	PT	Chloromethan	10.0000	9.9705	0.30	86	0.00
4	PT	VinylChlorid	10.0000	11.1289	-11.29	90	0.00
5	PT	Bromomethane	10.0000	11.6376	-16.38	102	0.00
6	PT	Chloroethane	10.0000	11.2988	-12.99	93	0.00
7	T	Dichloroflmethane	10.0000	10.7223	-7.22	94	0.00
8	PT	Trichlorofma	10.0000	11.9570	-19.57	96	0.00
9	T	Ethylether	10.0000	10.1625	-1.62	91	0.00
10	T	dichlorotfluoroethan	10.0000	11.2383	-12.38	91	0.00
11	T	propyleneoxide	100.0000	113.0057	-13.01	95	0.00
12	T	Acrolein	50.0000	49.6746	0.65	82	0.00
13	PT	11dichlorthe	10.0000	10.8652	-8.65	89	0.00
14	PT	Trichlorotfluoroeth	20.0000	23.6792	-18.40	93	0.00
15	PT	Acetone	100.0000	109.3659	-9.37	87	0.00
16	T	Iodomethane	20.0000	21.5392	-7.70	104	0.00
17	PT	Carbon Dislf	20.0000	21.7389	-8.69	90	0.00
18	T	allylchloride	20.0000	20.9733	-4.87	88	0.00
19	PT	methylacetate	10.0000	9.8278	1.72	88	0.00
20	PT	Methylchlorid	10.0000	10.6927	-6.93	90	0.00
21	T	tbutylalcohol	500.0000	492.6981	1.46	82	0.00
22	T	Acrylonitrile	50.0000	51.0096	-2.02	81	0.00
23	PT	t12dichlorte	10.0000	10.8141	-8.14	93	0.00
24	PT	MtBE	10.0000	10.1037	-1.04	86	0.00
25	T	Hexane	20.0000	23.3347	-16.67	88	0.00
26	PT	11dichlorota	10.0000	10.4799	-4.80	91	-0.01
27	T	Vinylacetate	100.0000	112.4983	-12.50	88	0.00
28	T	chloroprene	20.0000	21.8564	-9.28	90	0.00
29	T	Diisopether	10.0000	9.7889	2.11	88	0.00
30	T	ETBE	10.0000	10.4376	-4.38	88	0.00
31	T	22dichloropr	10.0000	10.3207	-3.21	95	0.00
32	PT	c12dichlorte	10.0000	10.1116	-1.12	90	0.00
33	PT	2Butanone	100.0000	101.6187	-1.62	84	0.00
34	T	propionitrile	100.0000	99.8037	0.20	82	0.00
35	T	Ethylacetate	50.0000	48.1003	3.80	82	0.00
36	T	methacrylonitrile	20.0000	20.0467	-0.23	86	0.00
37	T	Bromochlorma	10.0000	10.6145	-6.14	92	0.00
38	T	Tetrahydofur	100.0000	94.3284	5.67	76	0.00
39	PT	Chloroform	10.0000	10.4161	-4.16	91	0.00
40	PT	111trichlota	10.0000	11.5597	-15.60	97	0.00
41	S	SURRDibrflma	20.0000	20.9295	-4.65	87	0.00
42	PT	Cyclohexane	10.0000	11.4549	-14.55	88	0.00
43	PT	Carbtetraclo	10.0000	10.9327	-9.33	102	0.00
44	T	11dicloprope	10.0000	11.0996	-11.00	92	0.00
45	S	SURR12DCAd4	20.0000	19.4658	2.67	82	0.00
46	PT	Benzene	10.0000	10.5931	-5.93	89	0.00
47	PT	12dichlorota	10.0000	10.5587	-5.59	92	0.00
48	T	TAME	10.0000	10.2846	-2.85	87	0.00

49	PT	trichloroete	10.0000	10.3796	-3.80	91	0.00
50	PT	methylcyclohexane	10.0000	11.8735	-18.73	92	0.00
51	PT	12dicloropra	10.0000	10.3632	-3.63	88	0.00
52	T	23Dicl1propene	10.0000	10.8994	-8.99	92	0.00
53	T	Dibromometha	10.0000	10.7917	-7.92	94	0.00
54	T	methylmethacrylate	10.0000	10.5116	-5.12	85	0.00
55	T	14dioxane	500.0000	479.5941	4.08	81	0.00
56	PT	Bromodiclrma	10.0000	10.7776	-7.78	97	0.00
57	T	2Nitropropane	100.0000	118.2109	-18.21	113	0.00
58	T	2CLEVE	50.0000	45.0478	9.90	72	0.00
59	PT	c13dicloproe	10.0000	11.1670	-11.67	92	0.00
60	PT	4Meth2Pentan	100.0000	99.5214	0.48	80	0.00
61	S	SURRd8Tolule	20.0000	21.0392	-5.20	88	0.00
62	PT	Toluene	10.0000	10.7362	-7.36	90	0.00
63	PT	t13Dicloprop	10.0000	9.9517	0.48	94	0.00
64	T	ethylmethacrylate	20.0000	21.6976	-8.49	87	0.00
65	PT	112Triclotha	10.0000	10.5995	-6.00	89	0.00
66	PT	Tetrachlorte	10.0000	10.8465	-8.47	95	0.00
67	T	13Diclorpropa	10.0000	10.6581	-6.58	90	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	95	0.00
69	PT	2Hexanone	100.0000	93.5372	6.46	79	0.00
70	PT	Clorodibrmta	10.0000	9.7778	2.22	102	0.00
71	PT	12Dibrometha	10.0000	9.4079	5.92	94	0.00
72	PT	Chlorobenzen	10.0000	9.4747	5.25	92	0.00
73	T	1Clhexane	10.0000	9.3082	6.92	89	0.00
74	T	1112Tetclota	10.0000	9.5907	4.09	102	0.00
75	PT	Ethylbenzene	10.0000	9.8872	1.13	91	0.00
76	PT	m p-Xylene	20.0000	19.5476	2.26	91	0.00
77	PT	o-Xylene	10.0000	9.4690	5.31	90	0.00
78	PT	Styrene	10.0000	9.7046	2.95	91	0.00
79	PT	Bromoform	10.0000	9.8474	1.53	105	0.00
80	PT	Isopropylben	10.0000	9.7829	2.17	88	0.00
81	T	cyclohexanone	200.0000	193.8734	3.06	88	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	96	0.00
83	S	SURR4BrFBenz	20.0000	19.6677	1.66	94	0.00
84	T	Bromobenzene	10.0000	9.2697	7.30	90	0.00
85	PT	1122Tetrclta	10.0000	9.6626	3.37	93	0.00
86	T	123Triclproa	10.0000	9.2169	7.83	88	0.00
87	T	14dichloro2butene	10.0000	8.7100	12.90	86	0.00
88	T	n-Propylbenz	10.0000	9.8360	1.64	89	0.00
89	T	2chlorotolue	10.0000	9.3134	6.87	90	0.00
90	T	4chlorotolue	10.0000	9.2559	7.44	88	0.00
91	T	135Trimebenz	10.0000	9.6946	3.05	89	0.00
92	T	tbutylbenzen	10.0000	9.5247	4.75	92	0.00
93	T	124Trimetben	10.0000	9.5253	4.75	89	0.00
94	T	sbutylbenzen	10.0000	9.7813	2.19	89	0.00
95	PT	13Diclorbenz	10.0000	9.2858	7.14	91	0.00
96	T	pIsopropylto	10.0000	9.7006	2.99	88	0.00
97	PT	14dichlorobe	10.0000	9.2056	7.94	92	0.00
98	PT	12dichlorobe	10.0000	9.1820	8.18	91	0.00
99	T	nButylbenzen	10.0000	9.4114	5.89	87	0.00
100	PT	12dibromo3cl	10.0000	9.0964	9.04	97	0.00
101	T	135Trichlorobenzene	10.0000	9.0850	9.15	89	0.00
102	PT	124Trichlobe	10.0000	8.7953	12.05	85	0.00
103	T	Hexachlorobu	10.0000	9.5963	4.04	89	0.00
104	T	Naphthalene	10.0000	8.8055	11.94	82	0.00
105	T	123Trichlben	10.0000	8.8620	11.38	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W010323.M Fri Feb 03 09:46:25 2023

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS2.D Vial: 28
Acq On : 2 Feb 2023 8:07 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 08:27:52 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1098127	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	962231	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	497708	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	294725	20.929	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105	%		
45) SURR12DCAd4	7.26	102	77530	19.466	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 97	%		
61) SURRd8Tolule	9.70	98	1150473	21.039	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.25	95	462492	19.668	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	125981	10.8109	ug/L	96
3) Chloromethan	2.11	50	139891	9.9705	ug/L	100
4) VinylChlorid	2.24	62	171523	11.1289	ug/L	98
5) Bromomethane	2.71	94	94533	11.6376	ug/L	99
6) Chloroethane	2.87	64	115734	11.2988	ug/L	99
7) Dichloroflmethane	3.18	67	256564	10.7223	ug/L	99
8) Trichlorofma	3.26	101	216650	11.9570	ug/L	99
9) Ethylether	3.71	59	109980	10.1625	ug/L	95
10) dichlorotfluoroethan	3.71	67	212343	11.2383	ug/L	97
11) propyleneoxide	3.76	58	218083	113.0057	ug/L	98
12) Acrolein	3.84	56	148422	49.6746	ug/L	96
13) 11dichlorthe	3.98	96	121336	10.8652	ug/L	95
14) Trichlorotfluoroeth	4.02	101	263850	23.6792	ug/L	99
15) Acetone	4.05	43	468725	109.3659	ug/L	100
16) Iodomethane	4.16	142	237497	21.5392	ug/L	100
17) Carbon Dislf	4.25	76	590075	21.7389	ug/L	99
18) allylchloride	4.47	41	340380	20.9733	ug/L	96
19) methylacetate	4.53	74	38229	9.8278	ug/L	98
20) Methylchlorid	4.63	84	129694	10.6927	ug/L	97
21) tbutylalcohol	4.83	59	509105	492.6981	ug/L	95
22) Acrylonitrile	4.93	53	271185	51.0096	ug/L	99
23) t12dichlorte	5.00	96	133320	10.8141	ug/L	97
24) MtBE	5.04	73	322233	10.1037	ug/L	100
25) Hexane	5.40	57	423222	23.3347	ug/L	99
26) 11dichlorota	5.53	63	220226	10.4799	ug/L	100
27) Vinylacetate	5.62	43	2183542	112.4983	ug/L	100
28) chloroprene	5.66	53	403507	21.8564	ug/L	98
29) Diisopether	5.68	45	365625	9.7889	ug/L	94
30) ETBE	6.13	59	322200	10.4376	ug/L	98
31) 22dichloropr	6.27	77	141902	10.3207	ug/L	99
32) c12dichlorte	6.26	96	138986	10.1116	ug/L	98
33) 2Butanone	6.27	72	188245	101.6187	ug/L	99
34) propionitrile	6.32	54	227106	99.8037	ug/L	99
35) Ethylacetate	6.38	88	28429	48.1003	ug/L	97
36) methacrylonitrile	6.52	67	120372	20.0467	ug/L	98
37) Bromochlorma	6.55	128	70466	10.6145	ug/L	98
38) Tetrahydofur	6.63	42	424403	94.3284	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS2.D Vial: 28
Acq On : 2 Feb 2023 8:07 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 08:27:52 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	219077	10.4161 ug/L	98
40)	111trichlota	6.90	97	184758	11.5597 ug/L	98
42)	Cyclohexane	6.99	56	242898	11.4549 ug/L	95
43)	Carbtetraclo	7.11	119	149182	10.9327 ug/L	95
44)	11dicloprope	7.11	110	69807	11.0996 ug/L	96
46)	Benzene	7.36	78	511753	10.5931 ug/L	100
47)	12dichlorota	7.35	62	185987	10.5587 ug/L	99
48)	TAME	7.52	73	285669	10.2846 ug/L	98
49)	trichloroete	8.16	95	136923	10.3796 ug/L	97
50)	methylcyclohexane	8.43	83	268951	11.8735 ug/L	97
51)	12dicloropra	8.42	63	135241	10.3632 ug/L	94
52)	23Dicl1propene	8.49	75	203470	10.8994 ug/L	99
53)	Dibromometha	8.56	93	84037	10.7917 ug/L	97
54)	methylmethacrylate	8.59	69	91521	10.5116 ug/L	100
55)	14dioxane	8.60	88	88465	479.5941 ug/L	95
56)	Bromodiclrma	8.76	83	154363	10.7776 ug/L	99
57)	2Nitropropane	9.03	43	321754	118.2109 ug/L	97
58)	2CLEVE	9.15	63	203268	45.0478 ug/L	99
59)	c13dicloproe	9.33	75	189973	11.1670 ug/L	100
60)	4Meth2Pentan	9.54	43	1153580	99.5214 ug/L	100
62)	Toluene	9.78	92	349364	10.7362 ug/L	98
63)	t13Dicloprop	10.05	75	151491	9.9517 ug/L	98
64)	ethylmethacrylate	10.19	69	317448	21.6976 ug/L	99
65)	112Triclotha	10.28	83	99102	10.5995 ug/L	97
66)	Tetrachlorte	10.52	166	159930	10.8465 ug/L	100
67)	13Diclorpropa	10.51	76	216215	10.6581 ug/L	99
69)	2Hexanone	10.62	43	859383	93.5372 ug/L	100
70)	Clorodibrmta	10.81	129	122230	9.7778 ug/L	99
71)	12Dibrometha	10.96	107	119116	9.4079 ug/L	99
72)	Chlorobenzen	11.65	112	375321	9.4747 ug/L	99
73)	1Clhexane	11.63	91	185657	9.3082 ug/L	100
74)	1112Tetclota	11.76	131	112680	9.5907 ug/L	100
75)	Ethylbenzene	11.81	91	623080	9.8872 ug/L	99
76)	m p-Xylene	11.97	106	502614	19.5476 ug/L	99
77)	o-Xylene	12.52	106	241926	9.4690 ug/L	97
78)	Styrene	12.53	104	390630	9.7046 ug/L	100
79)	Bromoform	12.76	173	76061	9.8474 ug/L	97
80)	Isopropylben	13.05	105	595019	9.7829 ug/L	98
81)	cyclohexanone	13.13	55	234571	193.8734 ug/L	96
84)	Bromobenzene	13.45	156	152237	9.2697 ug/L	99
85)	1122Tetrclta	13.43	83	166100	9.6626 ug/L	96
86)	123Triclproa	13.48	75	194061	9.2169 ug/L	100
87)	14dichloro2butene	13.51	53	43736	8.7100 ug/L	97
88)	n-Propylbenz	13.63	91	681634	9.8360 ug/L	100
89)	2chlorotolue	13.75	91	393205	9.3134 ug/L	98
90)	4chlorotolue	13.90	91	455481	9.2559 ug/L	97
91)	135Trimebenz	13.89	105	489827	9.6946 ug/L	100
92)	tbutylbenzen	14.36	119	435694	9.5247 ug/L	99
93)	124Trimetben	14.43	105	466304	9.5253 ug/L	99
94)	sbutylbenzen	14.68	105	581801	9.7813 ug/L	100
95)	13Diclorbenz	14.82	146	275653	9.2858 ug/L	100
96)	pIsopropylto	14.90	119	505802	9.7006 ug/L	100
97)	14dichlorobe	14.94	146	282493	9.2056 ug/L	99
98)	12dichlorobe	15.48	146	266760	9.1820 ug/L	100
99)	nButylbenzen	15.49	91	410732	9.4114 ug/L	99
100)	12dibromo3cl	16.57	157	26955	9.0964 ug/L	91
101)	135Trichlorobenzene	16.90	180	183312	9.0850 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS2.D Vial: 28
Acq On : 2 Feb 2023 8:07 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 08:27:52 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.72	180	155456	8.7953	ug/L	94
103)	Hexachlorobu	17.97	225	68896	9.5963	ug/L	97
104)	Naphthalene	18.02	128	342312	8.8055	ug/L	99
105)	123Trichlben	18.33	180	142577	8.8620	ug/L	99

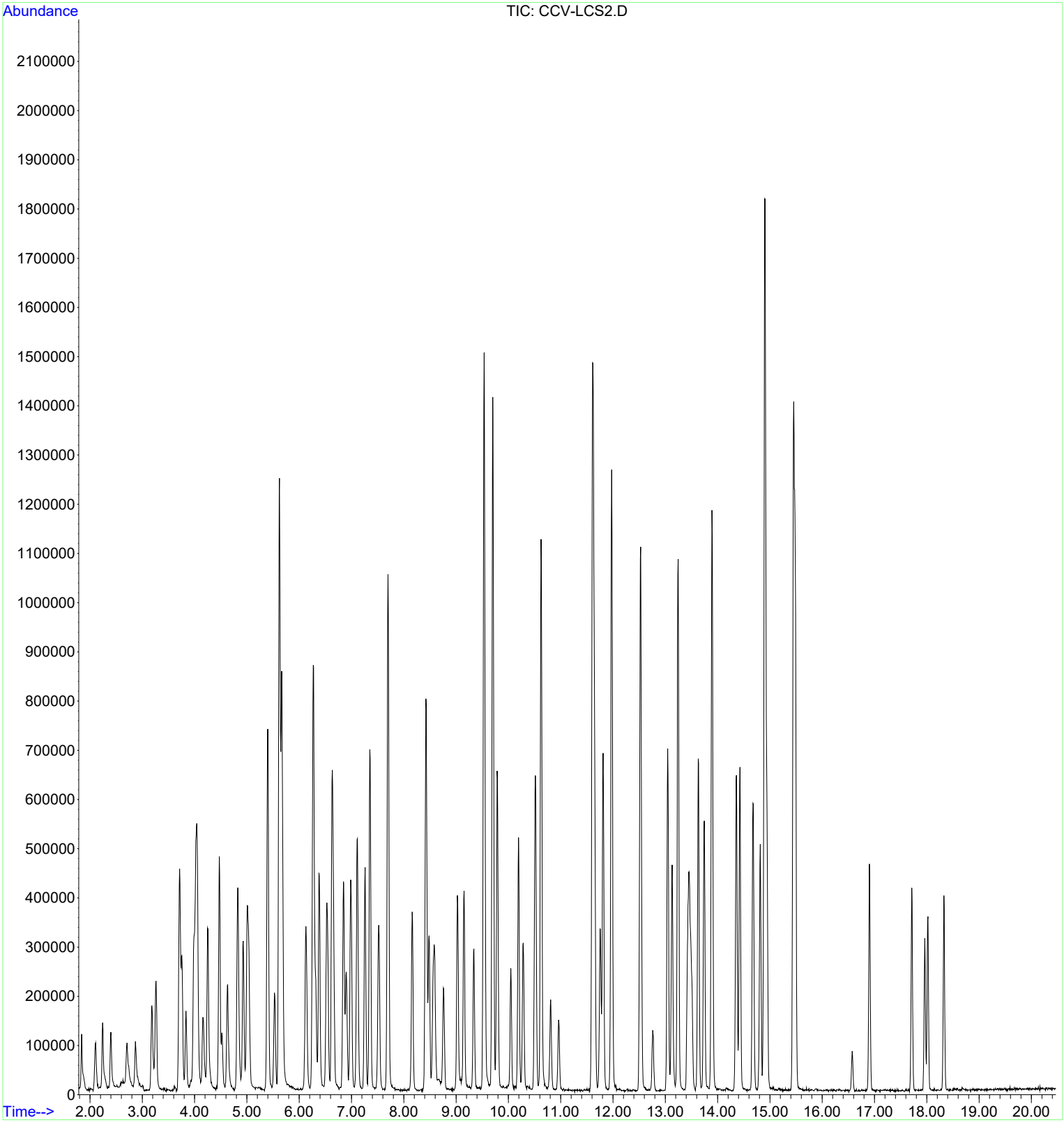
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS2.D Vial: 28
Acq On : 2 Feb 2023 8:07 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 08:27:52 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\CCB-MB2.D Vial: 30
Acq On : 2 Feb 2023 9:06 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 09:27:07 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1073173	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	930461	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	471552	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	286396	20.811	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104	%		
45) SURR12DCAd4	7.25	102	80938	20.794	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104	%		
61) SURRd8Tolule	9.70	98	1111222	20.794	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.25	95	433646	19.464	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\CCB-MB2.D Vial: 30
Acq On : 2 Feb 2023 9:06 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 09:27:07 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.61	91	2510	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\CCB-MB2.D Vial: 30
Acq On : 2 Feb 2023 9:06 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 09:27:07 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

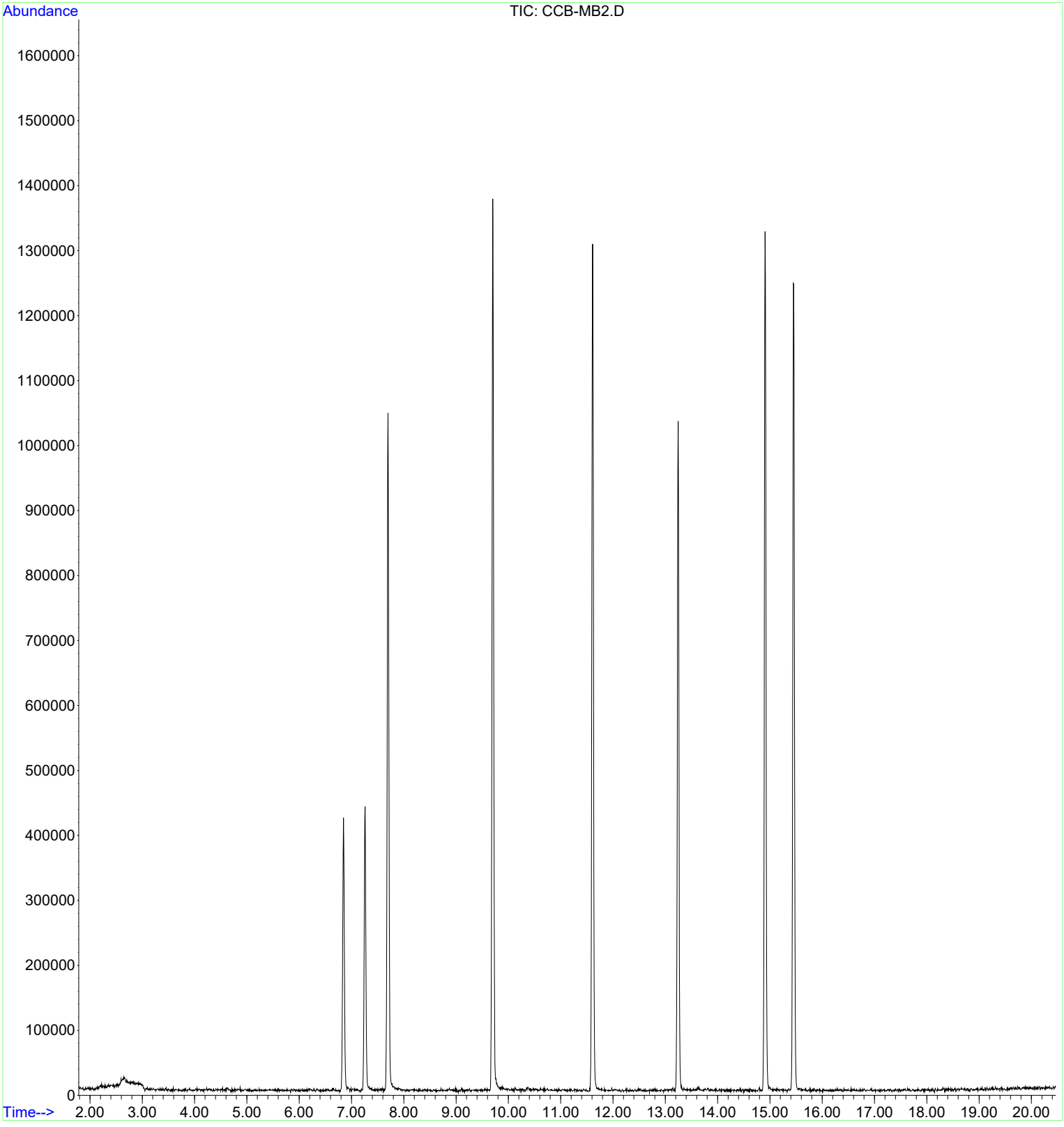
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\CCB-MB2.D Vial: 30
Acq On : 2 Feb 2023 9:06 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 09:27:07 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\VF2-LCD1.D Vial: 38
Acq On : 2 Feb 2023 13:04 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 02 13:25:16 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	85	0.00
2	PT	Dichlorodi	0.2122	0.2367	-11.55	92	0.00
3	PT	Chloromethan	0.2555	0.2629	-2.90	90	0.00
4	PT	VinylChlorid	0.2807	0.3045	-8.48	90	0.00
5	PT	Bromomethane	0.1479	0.1719	-16.23	104	0.00
6	PT	Chloroethane	0.1866	0.2056	-10.18	93	0.00
7	T	Dichloroflmethane	0.4358	0.4752	-9.04	98	0.00
8	PT	Trichlorofma	0.3300	0.3977	-20.52	98	0.00
9	T	Ethylether	0.1971	0.2070	-5.02	96	0.00
10	T	dichlorotfluoroethan	0.3441	0.3924	-14.04	94	0.00
11	T	propyleneoxide	0.0351	0.0408	-16.24	99	0.00
12	T	Acrolein	0.0544	0.0554	-1.84	86	0.00
13	PT	11dichlorthe	0.2034	0.2276	-11.90	93	0.00
14	PT	Trichlorotfluoroeth	0.2029	0.2391	-17.84	95	0.00
15	PT	Acetone	0.0844	0.0794#	5.92	82	0.00
16	T	Iodomethane	0.1776	0.2271	-27.87	111	0.00
17	PT	Carbon Dislf	0.4944	0.5394	-9.10	92	0.00
18	T	allylchloride	0.2956	0.3186	-7.78	92	0.00
19	PT	methylacetate	0.0708	0.0796#	-12.43	102	0.00
20	PT	Methylchlorid	0.2466	0.2406	2.43	94	0.00
21	T	tbutylalcohol	0.0188	0.0223#	-18.62	100	0.00
22	T	Acrylonitrile	0.0968	0.1018	-5.17	86	0.00
23	PT	t12dichlorte	0.2245	0.2466	-9.84	96	0.00
24	PT	MtBE	0.5809	0.6268	-7.90	94	0.00
25	T	Hexane	0.3303	0.3697	-11.93	86	0.00
26	PT	11dichlorota	0.3827	0.4076	-6.51	94	0.00
27	T	Vinylacetate	0.3287	0.4147	-26.16	93	0.00
28	T	chloroprene	0.3362	0.3737	-11.15	93	0.00
29	T	Diisopether	0.6803	0.7311	-7.47	99	0.00
30	T	ETBE	0.5622	0.6278	-11.67	96	0.00
31	T	22dichloropr	0.2341	0.2553	-9.06	96	0.00
32	PT	c12dichlorte	0.2503	0.2618	-4.59	95	0.00
33	PT	2Butanone	0.0337	0.0350#	-3.86	87	0.00
34	T	propionitrile	0.0414	0.0429	-3.62	86	0.00
35	T	Ethylacetate	0.0108	0.0113#	-4.63	92	0.00
36	T	methacrylonitrile	0.1094	0.1141	-4.30	91	0.00
37	T	Bromochlorma	0.1209	0.1265	-4.63	92	0.00
38	T	Tetrahydofur	0.0819	0.0830	-1.34	83	0.00
39	PT	Chloroform	0.3831	0.3935	-2.71	91	0.00
40	PT	111trichlota	0.2911	0.3451	-18.55	102	0.00
41	S	SURRDibrflma	0.2565	0.2683	-4.60	89	0.00
42	PT	Cyclohexane	0.3862	0.4526	-17.19	92	0.00
43	PT	Carbtetraclo	0.2299	0.2736	-19.01	104	0.00
44	T	11dicloprope	0.1145	0.1284	-12.14	95	0.00
45	S	SURR12DCAd4	0.0725	0.0699	3.59	83	0.00
46	PT	Benzene	0.8799	0.9629	-9.43	94	0.00
47	PT	12dichlorota	0.3208	0.3371	-5.08	93	0.00
48	T	TAME	0.5059	0.5687	-12.41	96	0.00

49	PT	trichloroete	0.2403	0.2589	-7.74	96	0.00
50	PT	methylcyclohexane	0.4125	0.4838	-17.28	92	0.00
51	PT	12dicloropra	0.2377	0.2516	-5.85	91	0.00
52	T	23Dicl1propene	0.3400	0.3724	-9.53	94	0.00
53	T	Dibromometha	0.1418	0.1501	-5.85	94	0.00
54	T	methylmethacrylate	0.1586	0.1862	-17.40	97	0.00
55	T	14dioxane	0.0034	0.0035#	-2.94	89	0.00
56	PT	Bromodiclrma	0.2609	0.2817	-7.97	99	0.00
57	T	2Nitropropane	0.0461	0.0560	-21.48	110	0.00
58	T	2CLEVE	0.0822	0.0809	1.58	80	0.00
59	PT	c13dicloproe	0.3098	0.3433	-10.81	93	0.00
60	PT	4Meth2Pentan	0.2111	0.2216	-4.97	86	0.00
61	S	SURRd8Tolule	0.9959	1.0597	-6.41	91	0.00
62	PT	Toluene	0.5927	0.6562	-10.71	95	0.00
63	PT	t13Dicloprop	0.2492	0.2805	-12.56	97	0.00
64	T	ethylmethacrylate	0.2665	0.3146	-18.05	97	0.00
65	PT	112Triclotha	0.1703	0.1858	-9.10	94	0.00
66	PT	Tetrachlorte	0.2685	0.2902	-8.08	96	0.00
67	T	13Diclorpropa	0.3695	0.3957	-7.09	92	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	97	0.00
69	PT	2Hexanone	0.1910	0.1862	2.51	84	0.00
70	PT	Clorodibrmta	0.2418	0.2428	-0.41	100	0.00
71	PT	12Dibrometha	0.2399	0.2601	-8.42	102	0.00
72	PT	Chlorobenzen	0.8234	0.7888	4.20	95	0.00
73	T	1Clhexane	0.4146	0.3920	5.45	92	0.00
74	T	1112Tetclota	0.2312	0.2281	1.34	102	0.00
75	PT	Ethylbenzene	1.3099	1.3009	0.69	94	0.00
76	PT	m p-Xylene	0.5344	0.5237	2.00	94	0.00
77	PT	o-Xylene	0.5310	0.5162	2.79	94	0.00
78	PT	Styrene	0.8366	0.8137	2.74	93	0.00
79	PT	Bromoform	0.1556	0.1560	-0.26	106	0.00
80	PT	Isopropylben	1.2642	1.2901	-2.05	94	0.00
81	T	cyclohexanone	0.0251	0.0155#	38.25	57	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	100	0.00
83	S	SURR4BrFBenz	0.9449	0.9329	1.27	98	0.00
84	T	Bromobenzene	0.6599	0.6215	5.82	95	0.00
85	PT	1122Tetrclta	0.6908	0.6675	3.37	96	0.00
86	T	123Triclproa	0.8461	0.7658	9.49	89	0.00
87	T	14dichloro2butene	0.2018	0.1777	11.94	90	0.00
88	T	n-Propylbenz	2.7848	2.7043	2.89	91	0.00
89	T	2chlorotolue	1.6966	1.6006	5.66	94	0.00
90	T	4chlorotolue	1.9774	1.8635	5.76	93	0.00
91	T	135Trimebenz	2.0303	1.9806	2.45	93	0.00
92	T	tbutylbenzen	1.8382	1.7755	3.41	96	0.00
93	T	124Trimetben	1.9672	1.8867	4.09	92	0.00
94	T	sbutylbenzen	2.3902	2.3855	0.20	94	0.00
95	PT	13Diclorbenz	1.1929	1.1403	4.41	97	0.00
96	T	pIsopropylto	2.0953	2.0955	-0.01	94	0.00
97	PT	14dichlorobe	1.2331	1.1253	8.74	94	0.00
98	PT	12dichlorobe	1.1674	1.1005	5.73	96	0.00
99	T	nButylbenzen	1.7537	1.6587	5.42	90	0.00
100	PT	12dibromo3cl	0.1166	0.1121	3.86	104	0.00
101	T	135Trichlorobenzene	0.8108	0.7639	5.78	96	0.00
102	PT	124Trichlobe	0.7102	0.6458	9.07	91	0.00
103	T	Hexachlorobu	0.2885	0.2741	4.99	91	0.00
104	T	Naphthalene	1.5622	1.4956	4.26	92	0.00
105	T	123Trichlben	0.6465	0.5902	8.71	92	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W010323.M Fri Feb 03 09:49:50 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\FEB0123\VF2-LCD1.D Vial: 38
Acq On : 2 Feb 2023 13:04 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Feb 02 13:25:16 2023

Quant Method : C:\INSTARCH\METHODS\W010323.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W010323.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	85	0.00
2	PT	Dichlorodi	10.0000	11.1549	-11.55	92	0.00
3	PT	Chloromethan	10.0000	10.2886	-2.89	90	0.00
4	PT	VinylChlorid	10.0000	10.8490	-8.49	90	0.00
5	PT	Bromomethane	10.0000	11.6210	-16.21	104	0.00
6	PT	Chloroethane	10.0000	11.0193	-10.19	93	0.00
7	T	Dichloroflmethane	10.0000	10.9045	-9.05	98	0.00
8	PT	Trichlorofma	10.0000	12.0503	-20.50	98	0.00
9	T	Ethylether	10.0000	10.5025	-5.02	96	0.00
10	T	dichlorotfluoroethan	10.0000	11.4037	-14.04	94	0.00
11	T	propyleneoxide	100.0000	116.0953	-16.10	99	0.00
12	T	Acrolein	50.0000	50.8716	-1.74	86	0.00
13	PT	11dichlorthe	10.0000	11.1886	-11.89	93	0.00
14	PT	Trichlorotfluoroeth	20.0000	23.5660	-17.83	95	0.00
15	PT	Acetone	100.0000	101.2082	-1.21	82	0.00
16	T	Iodomethane	20.0000	22.4727	-12.36	111	0.00
17	PT	Carbon Dislf	20.0000	21.8211	-9.11	92	0.00
18	T	allylchloride	20.0000	21.5582	-7.79	92	0.00
19	PT	methylacetate	10.0000	11.2353	-12.35	102	0.00
20	PT	Methylchlorid	10.0000	10.9021	-9.02	94	0.00
21	T	tbutylalcohol	500.0000	591.5566	-18.31	100	0.00
22	T	Acrylonitrile	50.0000	52.5515	-5.10	86	0.00
23	PT	t12dichlorte	10.0000	10.9849	-9.85	96	0.00
24	PT	MtBE	10.0000	10.7906	-7.91	94	0.00
25	T	Hexane	20.0000	22.3811	-11.91	86	0.00
26	PT	11dichlorota	10.0000	10.6510	-6.51	94	0.00
27	T	Vinylacetate	100.0000	117.9034	-17.90	93	0.00
28	T	chloroprene	20.0000	22.2281	-11.14	93	0.00
29	T	Diisopether	10.0000	10.7465	-7.46	99	0.00
30	T	ETBE	10.0000	11.1672	-11.67	96	0.00
31	T	22dichloropr	10.0000	10.2055	-2.06	96	0.00
32	PT	c12dichlorte	10.0000	10.4576	-4.58	95	0.00
33	PT	2Butanone	100.0000	103.6350	-3.64	87	0.00
34	T	propionitrile	100.0000	103.4566	-3.46	86	0.00
35	T	Ethylacetate	50.0000	52.7148	-5.43	92	0.00
36	T	methacrylonitrile	20.0000	20.8614	-4.31	91	0.00
37	T	Bromochlorma	10.0000	10.4630	-4.63	92	0.00
38	T	Tetrahydofur	100.0000	101.3114	-1.31	83	0.00
39	PT	Chloroform	10.0000	10.2729	-2.73	91	0.00
40	PT	111trichlota	10.0000	11.8539	-18.54	102	0.00
41	S	SURRDibrflma	20.0000	20.9209	-4.60	89	0.00
42	PT	Cyclohexane	10.0000	11.7186	-17.19	92	0.00
43	PT	Carbtetraclo	10.0000	11.0019	-10.02	104	0.00
44	T	11dicloprope	10.0000	11.2097	-12.10	95	0.00
45	S	SURR12DCAd4	20.0000	19.2801	3.60	83	0.00
46	PT	Benzene	10.0000	10.9436	-9.44	94	0.00
47	PT	12dichlorota	10.0000	10.5075	-5.08	93	0.00
48	T	TAME	10.0000	11.2414	-12.41	96	0.00

49	PT	trichloroete	10.0000	10.7746	-7.75	96	0.00
50	PT	methylcyclohexane	10.0000	11.7275	-17.27	92	0.00
51	PT	12dicloropra	10.0000	10.5849	-5.85	91	0.00
52	T	23Dicl1propene	10.0000	10.9517	-9.52	94	0.00
53	T	Dibromometha	10.0000	10.5857	-5.86	94	0.00
54	T	methylmethacrylate	10.0000	11.7402	-17.40	97	0.00
55	T	14dioxane	500.0000	515.8446	-3.17	89	0.00
56	PT	Bromodiclrma	10.0000	10.8000	-8.00	99	0.00
57	T	2Nitropropane	100.0000	113.3873	-13.39	110	0.00
58	T	2CLEVE	50.0000	49.2248	1.55	80	0.00
59	PT	c13dicloproe	10.0000	11.0791	-10.79	93	0.00
60	PT	4Meth2Pentan	100.0000	104.9735	-4.97	86	0.00
61	S	SURRd8Tolule	20.0000	21.2809	-6.40	91	0.00
62	PT	Toluene	10.0000	11.0728	-10.73	95	0.00
63	PT	t13Dicloprop	10.0000	10.1043	-1.04	97	0.00
64	T	ethylmethacrylate	20.0000	23.6133	-18.07	97	0.00
65	PT	112Triclotha	10.0000	10.9093	-9.09	94	0.00
66	PT	Tetrachlorte	10.0000	10.8067	-8.07	96	0.00
67	T	13Diclorpropa	10.0000	10.7110	-7.11	92	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	97	0.00
69	PT	2Hexanone	100.0000	97.5076	2.49	84	0.00
70	PT	Clorodibrmta	10.0000	9.3775	6.23	100	0.00
71	PT	12Dibrometha	10.0000	9.8604	1.40	102	0.00
72	PT	Chlorobenzen	10.0000	9.5807	4.19	95	0.00
73	T	1Clhexane	10.0000	9.4549	5.45	92	0.00
74	T	1112Tetclota	10.0000	9.3666	6.33	102	0.00
75	PT	Ethylbenzene	10.0000	9.9319	0.68	94	0.00
76	PT	m p-Xylene	20.0000	19.5971	2.01	94	0.00
77	PT	o-Xylene	10.0000	9.7204	2.80	94	0.00
78	PT	Styrene	10.0000	9.7264	2.74	93	0.00
79	PT	Bromoform	10.0000	9.7315	2.68	106	0.00
80	PT	Isopropylben	10.0000	10.2045	-2.04	94	0.00
81	T	cyclohexanone	200.0000	123.1428	38.43	57	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	100	0.00
83	S	SURR4BrFBenz	20.0000	19.7441	1.28	98	0.00
84	T	Bromobenzene	10.0000	9.4174	5.83	95	0.00
85	PT	1122Tetrclta	10.0000	9.6626	3.37	96	0.00
86	T	123Triclproa	10.0000	9.0512	9.49	89	0.00
87	T	14dichloro2butene	10.0000	8.8052	11.95	90	0.00
88	T	n-Propylbenz	10.0000	9.7111	2.89	91	0.00
89	T	2chlorotolue	10.0000	9.4343	5.66	94	0.00
90	T	4chlorotolue	10.0000	9.4239	5.76	93	0.00
91	T	135Trimebenz	10.0000	9.7553	2.45	93	0.00
92	T	tbutylbenzen	10.0000	9.6590	3.41	96	0.00
93	T	124Trimetben	10.0000	9.5909	4.09	92	0.00
94	T	sbutylbenzen	10.0000	9.9802	0.20	94	0.00
95	PT	13Diclorbenz	10.0000	9.5593	4.41	97	0.00
96	T	pIsopropylto	10.0000	10.0013	-0.01	94	0.00
97	PT	14dichlorobe	10.0000	9.1258	8.74	94	0.00
98	PT	12dichlorobe	10.0000	9.4265	5.73	96	0.00
99	T	nButylbenzen	10.0000	9.4581	5.42	90	0.00
100	PT	12dibromo3cl	10.0000	9.3691	6.31	104	0.00
101	T	135Trichlorobenzene	10.0000	9.4209	5.79	96	0.00
102	PT	124Trichlobe	10.0000	9.0930	9.07	91	0.00
103	T	Hexachlorobu	10.0000	9.5008	4.99	91	0.00
104	T	Naphthalene	10.0000	9.5741	4.26	92	0.00
105	T	123Trichlben	10.0000	9.1289	8.71	92	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W010323.M Fri Feb 03 09:50:34 2023

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\VF2-LCD1.D Vial: 38
Acq On : 2 Feb 2023 13:04 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 13:25:16 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1119862	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	986180	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	515380	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	300435	20.921 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105 %		
45) SURR12DCAd4	7.27	102	78310	19.280 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 96 %		
61) SURRd8Tolule	9.70	98	1186724	21.281 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 106 %		
83) SURR4BrFBenz	13.24	95	480774	19.744 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	132562	11.1549 ug/L	100
3) Chloromethan	2.10	50	147211	10.2886 ug/L	98
4) VinylChlorid	2.24	62	170520	10.8490 ug/L	98
5) Bromomethane	2.70	94	96266	11.6210 ug/L	96
6) Chloroethane	2.87	64	115106	11.0193 ug/L	98
7) Dichloroflmethane	3.18	67	266089	10.9045 ug/L	97
8) Trichlorofma	3.26	101	222663	12.0503 ug/L	99
9) Ethylether	3.71	59	115909	10.5025 ug/L	98
10) dichlorotfluoroethan	3.72	67	219732	11.4037 ug/L	98
11) propyleneoxide	3.76	58	228480	116.0953 ug/L	99
12) Acrolein	3.84	56	155007	50.8716 ug/L	99
13) 11dichlorthe	3.99	96	127421	11.1886 ug/L	99
14) Trichlorotfluoroeth	4.02	101	267786	23.5660 ug/L	99
15) Acetone	4.05	43	444462	101.2082 ug/L	100
16) Iodomethane	4.16	142	254312	22.4727 ug/L	98
17) Carbon Dislf	4.25	76	604029	21.8211 ug/L	99
18) allylchloride	4.47	41	356797	21.5582 ug/L	97
19) methylacetate	4.53	74	44569	11.2353 ug/L	95
20) Methylchlorid	4.63	84	134736	10.9021 ug/L	98
21) tbutylalcohol	4.83	59	623354	591.5566 ug/L	98
22) Acrylonitrile	4.93	53	284912	52.5515 ug/L	98
23) t12dichlorte	5.00	96	138106	10.9849 ug/L	98
24) MtBE	5.04	73	350953	10.7906 ug/L	98
25) Hexane	5.40	57	413960	22.3811 ug/L	98
26) 11dichlorota	5.53	63	228250	10.6510 ug/L	99
27) Vinylacetate	5.62	43	2321950	117.9034 ug/L	99
28) chloroprene	5.66	53	418493	22.2281 ug/L	99
29) Diisopether	5.68	45	409338	10.7465 ug/L	90
30) ETBE	6.13	59	351542	11.1672 ug/L	99
31) 22dichloropr	6.27	77	142959	10.2055 ug/L	99
32) c12dichlorte	6.26	96	146586	10.4576 ug/L	94
33) 2Butanone	6.28	72	195780	103.6350 ug/L	96
34) propionitrile	6.32	54	240078	103.4566 ug/L	97
35) Ethylacetate	6.38	88	31773	52.7148 ug/L	95
36) methacrylonitrile	6.52	67	127743	20.8614 ug/L	96
37) Bromochlorma	6.55	128	70835	10.4630 ug/L	96
38) Tetrahydofur	6.63	42	464843	101.3114 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\VF2-LCD1.D Vial: 38
Acq On : 2 Feb 2023 13:04 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 13:25:16 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	220340	10.2729	ug/L	94
40)	111trichlota	6.90	97	193211	11.8539	ug/L	96
42)	Cyclohexane	6.99	56	253408	11.7186	ug/L	96
43)	Carbtetraclo	7.12	119	153183	11.0019	ug/L	96
44)	11dicloprope	7.11	110	71895	11.2097	ug/L	99
46)	Benzene	7.36	78	539150	10.9436	ug/L	100
47)	12dichlorota	7.35	62	188748	10.5075	ug/L	98
48)	TAME	7.52	73	318427	11.2414	ug/L	98
49)	trichloroete	8.16	95	144947	10.7746	ug/L	98
50)	methylcyclohexane	8.43	83	270900	11.7275	ug/L	98
51)	12dicloropra	8.42	63	140868	10.5849	ug/L	99
52)	23Dicl1propene	8.48	75	208492	10.9517	ug/L	98
53)	Dibromometha	8.56	93	84064	10.5857	ug/L	98
54)	methylmethacrylate	8.59	69	104241	11.7402	ug/L	98
55)	14dioxane	8.60	88	97035	515.8446	ug/L	95
56)	Bromodiclrma	8.76	83	157745	10.8000	ug/L	100
57)	2Nitropropane	9.02	43	313534	113.3873	ug/L	98
58)	2CLEVE	9.15	63	226512	49.2248	ug/L	99
59)	c13dicloproe	9.34	75	192209	11.0791	ug/L	98
60)	4Meth2Pentan	9.54	43	1240860	104.9735	ug/L	99
62)	Toluene	9.78	92	367447	11.0728	ug/L	98
63)	t13Dicloprop	10.05	75	157069	10.1043	ug/L	99
64)	ethylmethacrylate	10.19	69	352314	23.6133	ug/L	98
65)	112Triclotha	10.28	83	104017	10.9093	ug/L	96
66)	Tetrachlorte	10.52	166	162497	10.8067	ug/L	99
67)	13Diclorpropa	10.51	76	221589	10.7110	ug/L	99
69)	2Hexanone	10.62	43	918158	97.5076	ug/L	99
70)	Clorodibrmta	10.81	129	119742	9.3775	ug/L	96
71)	12Dibrometha	10.96	107	128250	9.8604	ug/L	100
72)	Chlorobenzen	11.65	112	388967	9.5807	ug/L	99
73)	1Clhexane	11.63	91	193277	9.4549	ug/L	99
74)	1112Tetclota	11.76	131	112458	9.3666	ug/L	96
75)	Ethylbenzene	11.81	91	641478	9.9319	ug/L	100
76)	m p-Xylene	11.98	106	516428	19.5971	ug/L	100
77)	o-Xylene	12.52	106	254531	9.7204	ug/L	100
78)	Styrene	12.53	104	401251	9.7264	ug/L	100
79)	Bromoform	12.76	173	76911	9.7315	ug/L	96
80)	Isopropylben	13.05	105	636111	10.2045	ug/L	100
81)	cyclohexanone	13.13	55	152701	123.1428	ug/L	95
84)	Bromobenzene	13.45	156	160154	9.4174	ug/L	99
85)	1122Tetrclta	13.42	83	171998	9.6626	ug/L	95
86)	123Triclproa	13.48	75	197338	9.0512	ug/L	99
87)	14dichloro2butene	13.51	53	45784	8.8052	ug/L	97
88)	n-Propylbenz	13.63	91	696871	9.7111	ug/L	97
89)	2chlorotolue	13.75	91	412453	9.4343	ug/L	98
90)	4chlorotolue	13.90	91	480213	9.4239	ug/L	96
91)	135Trimebenz	13.89	105	510393	9.7553	ug/L	100
92)	tbutylbenzen	14.36	119	457526	9.6590	ug/L	97
93)	124Trimetben	14.43	105	486184	9.5909	ug/L	99
94)	sbutylbenzen	14.68	105	614711	9.9802	ug/L	100
95)	13Diclorbenz	14.81	146	293848	9.5593	ug/L	96
96)	pIsopropylto	14.90	119	540000	10.0013	ug/L	98
97)	14dichlorobe	14.94	146	289988	9.1258	ug/L	99
98)	12dichlorobe	15.48	146	283587	9.4265	ug/L	99
99)	nButylbenzen	15.49	91	427424	9.4581	ug/L	99
100)	12dibromo3cl	16.58	157	28890	9.3691	ug/L	91
101)	135Trichlorobenzene	16.90	180	196838	9.4209	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\VF2-LCD1.D Vial: 38
Acq On : 2 Feb 2023 13:04 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 13:25:16 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	166424	9.0930	ug/L	98
103) Hexachlorobu	17.96	225	70632	9.5008	ug/L	97
104) Naphthalene	18.02	128	385409	9.5741	ug/L	98
105) 123Trichlben	18.33	180	152086	9.1289	ug/L	98

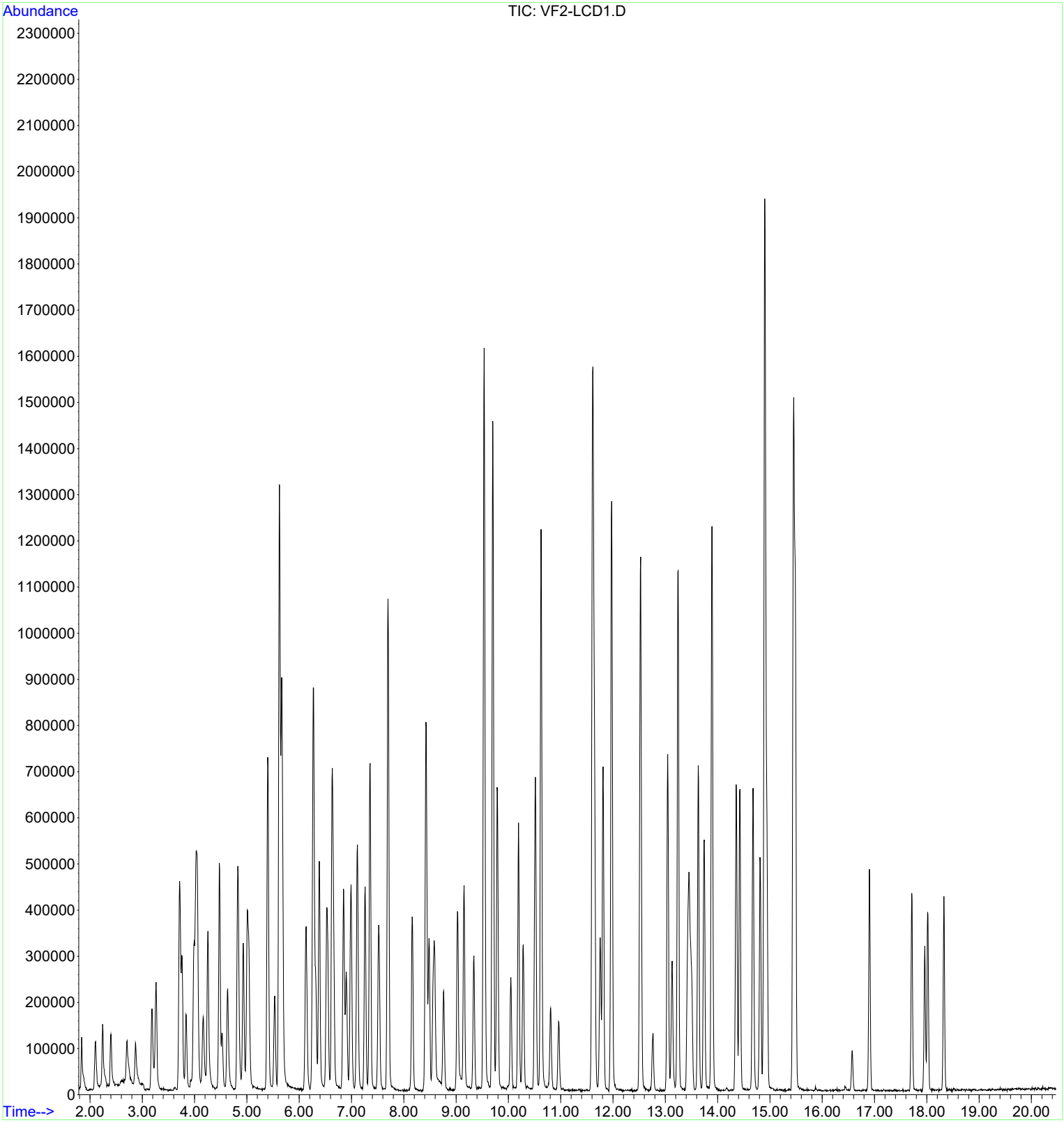
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\VF2-LCD1.D Vial: 38
Acq On : 2 Feb 2023 13:04 Operator: DGS-RLD
Sample : 268886,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 13:25:16 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\013123 - 268888.seq
User : DGS
Printed : Jan 31, 2023 10:22:27

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\013123 -\002.dat	268888,CCV,	Jan 31, 2023 10:22:27

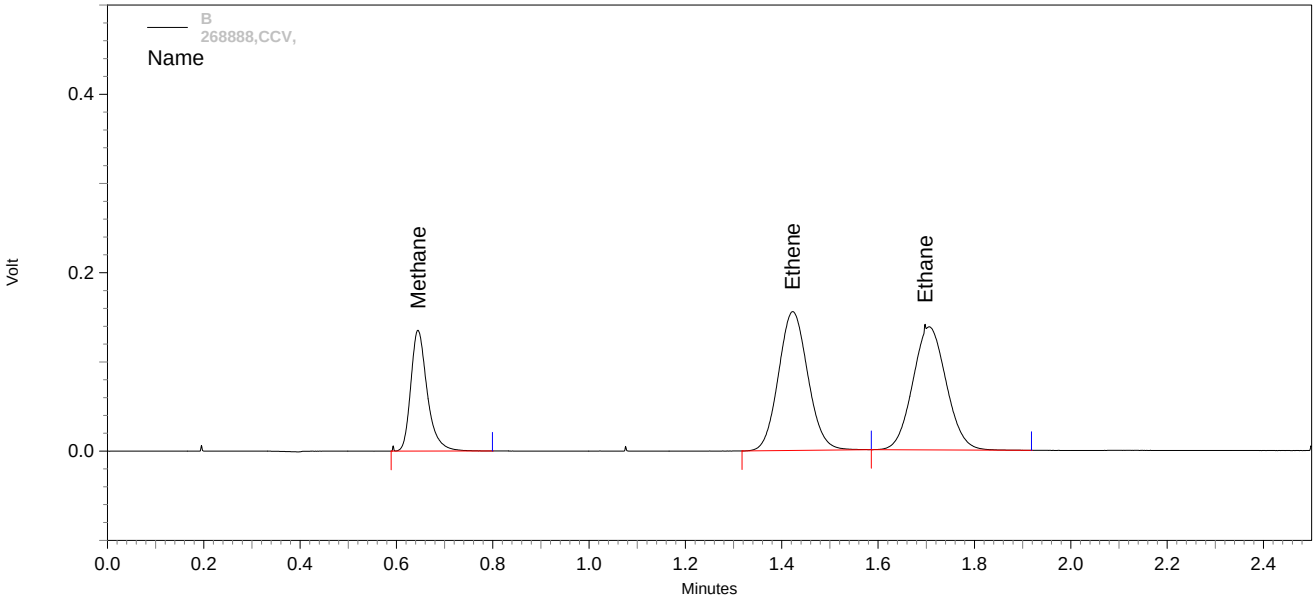
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	48.069	3.862	15.000	**Passed**
Ethene	50.000	46.578	6.843	15.000	**Passed**
Ethane	50.000	47.416	5.168	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,CCV,
Acquired: Jan 31, 2023 08:09:08
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.645**	**0.644**	**322190**	**48.069**	**ppmV**
2	**Ethene**	**1.422**	**1.442**	**657487**	**46.578**	**ppmV**
3	**Ethane**	**1.697**	**1.726**	**665999**	**47.416**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\013123 - 268888.seq
User : DGS
Printed : Jan 31, 2023 10:23:32

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\013123 -\015.dat	268888,CCV,	Jan 31, 2023 10:23:32

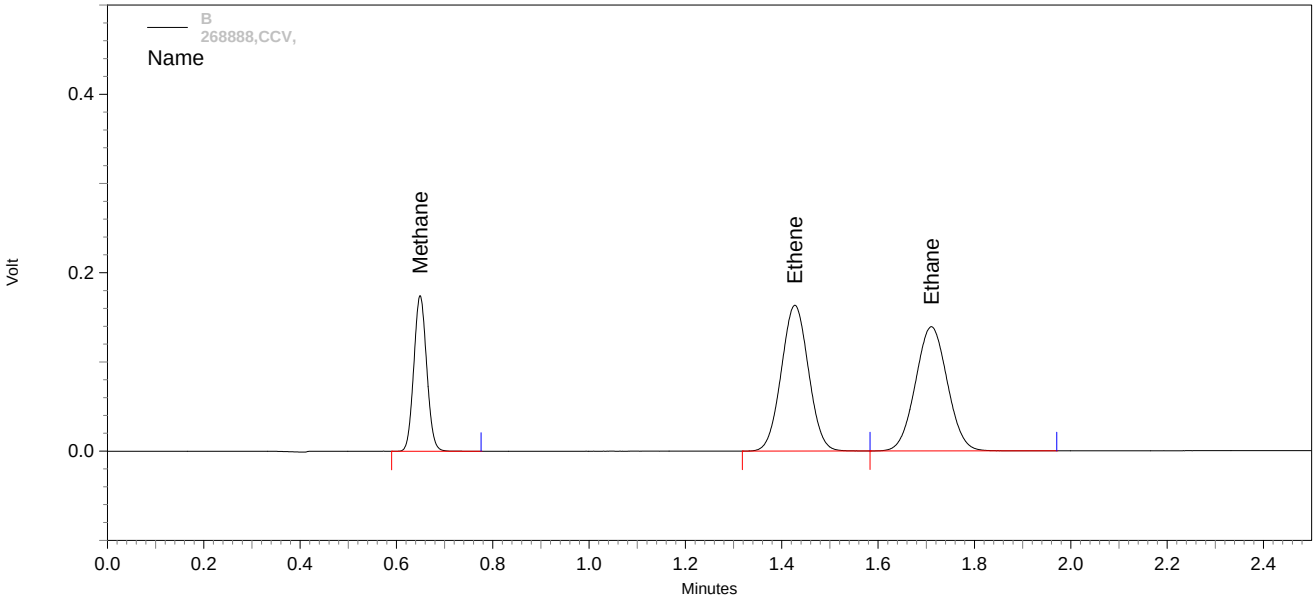
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	48.489	3.022	15.000	**Passed**
Ethene	50.000	45.476	9.047	15.000	**Passed**
Ethane	50.000	45.647	8.707	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\015.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,CCV,
Acquired: Jan 31, 2023 10:17:02
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.649**	**0.644**	**324998**	**48.489**	**ppmV**
2	**Ethene**	**1.427**	**1.442**	**641090**	**45.476**	**ppmV**
3	**Ethane**	**1.711**	**1.726**	**639854**	**45.647**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\020123 - 268889.seq
User : DGS
Printed : Feb 01, 2023 11:55:34

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\020123 -\002.dat	268889,CCV,	Feb 01, 2023 11:55:33

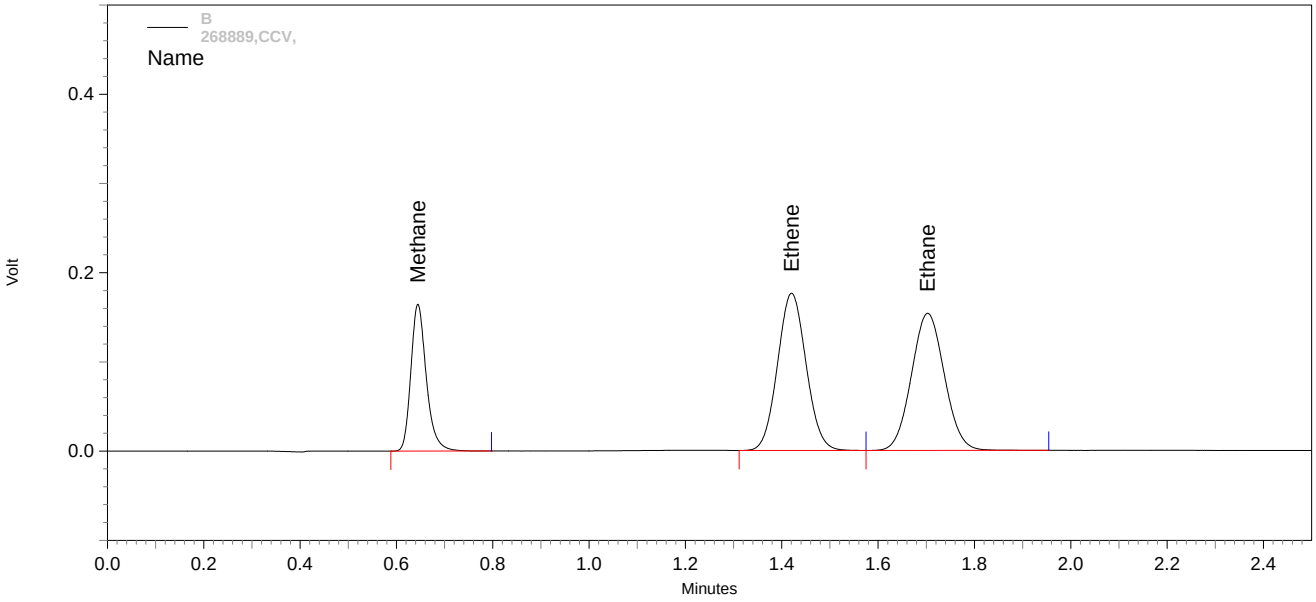
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	54.723	9.447	15.000	**Passed**
Ethene	50.000	51.225	2.450	15.000	**Passed**
Ethane	50.000	51.845	3.689	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,CCV,
Acquired: Feb 01, 2023 09:32:24
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.644**	**0.644**	**366662**	**54.723**	**ppmV**
2	**Ethene**	**1.420**	**1.442**	**726612**	**51.225**	**ppmV**
3	**Ethane**	**1.703**	**1.726**	**731431**	**51.845**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\020123 - 268889.seq
User : DGS
Printed : Feb 01, 2023 11:56:32

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\020123 -\015.dat	268889,CCV,	Feb 01, 2023 11:56:32

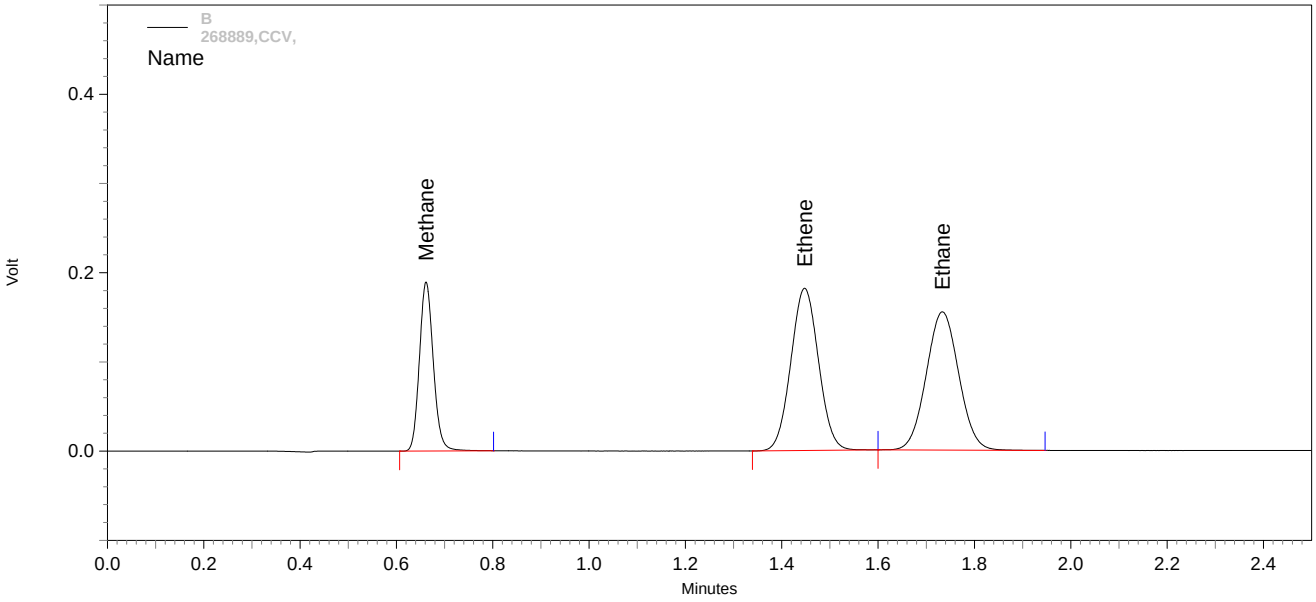
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	56.733	13.466	15.000	**Passed**
Ethene	50.000	51.112	2.224	15.000	**Passed**
Ethane	50.000	51.460	2.919	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\015.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,CCV,
Acquired: Feb 01, 2023 11:32:41
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.662**	**0.644**	**380092**	**56.733**	**ppmV**
2	**Ethene**	**1.447**	**1.442**	**724928**	**51.112**	**ppmV**
3	**Ethane**	**1.733**	**1.726**	**725743**	**51.460**	**ppmV**

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1089138	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	918565	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	480218	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	301265	21.570	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 108	%		
45) SURR12DCAd4	7.26	102	79343	20.085	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1135351	20.934	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.24	95	446221	19.667	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	130697	11.3082	ug/L	99
3) Chloromethan	2.11	50	143002	10.2763	ug/L	100
4) VinylChlorid	2.24	62	178757	11.6939	ug/L	97
5) Bromomethane	2.71	94	96592	11.9892	ug/L	100
6) Chloroethane	2.87	64	118037	11.6187	ug/L	97
7) Dichloroflmethane	3.18	67	253189	10.6686	ug/L	98
8) Trichlorofma	3.26	101	220174	12.2517	ug/L	99
9) Ethylether	3.71	59	114252	10.6444	ug/L	95
10) dichlorotfluoroethan	3.71	67	215093	11.4778	ug/L	96
11) propyleneoxide	3.76	58	219366	114.6087	ug/L	98
12) Acrolein	3.84	56	149623	50.4899	ug/L	98
13) 11dichlorthe	3.98	96	129574	11.6986	ug/L	99
14) Trichlorotfluoroeth	4.02	101	269691	24.4032	ug/L	99
15) Acetone	4.05	43	480720	113.3303	ug/L	98
16) Iodomethane	4.16	142	234548	21.4595	ug/L	99
17) Carbon Dislf	4.26	76	628137	23.3321	ug/L	99
18) allylchloride	4.47	41	348114	21.6269	ug/L	96
19) methylacetate	4.53	74	36422	9.4405	ug/L	99
20) Methylchlorid	4.63	84	132125	10.9965	ug/L	98
21) tbutylalcohol	4.83	59	491957	480.0321	ug/L	100
22) Acrylonitrile	4.93	53	272361	51.6536	ug/L	99
23) t12dichlorte	5.00	96	137541	11.2485	ug/L	99
24) MtBE	5.03	73	324447	10.2571	ug/L	99
25) Hexane	5.40	57	462939	25.7352	ug/L	97
26) 11dichlorota	5.53	63	231495	11.1071	ug/L	97
27) Vinylacetate	5.62	43	2240782	116.8801	ug/L	99
28) chloroprene	5.66	53	422422	23.0698	ug/L	98
29) Diisopether	5.68	45	396980	10.7161	ug/L	90
30) ETBE	6.13	59	294637	9.6235	ug/L	96
31) 22dichloropr	6.27	77	141715	10.3866	ug/L	99
32) c12dichlorte	6.26	96	144969	10.6340	ug/L	97
33) 2Butanone	6.27	72	188431	102.5586	ug/L	99
34) propionitrile	6.32	54	227138	100.6416	ug/L	98
35) Ethylacetate	6.38	88	29945	51.0835	ug/L #	90
36) methacrylonitrile	6.52	67	121546	20.4093	ug/L	96
37) Bromochlorma	6.55	128	69274	10.5210	ug/L	98
38) Tetrahydofur	6.63	42	431792	96.7628	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	222162	10.6500	ug/L	98
40)	111trichlota	6.90	97	183098	11.5504	ug/L	100
42)	Cyclohexane	6.99	56	251196	11.9440	ug/L	95
43)	Carbtetraclo	7.12	119	153948	11.3388	ug/L	95
44)	11dicloprope	7.11	110	71790	11.5091	ug/L	99
46)	Benzene	7.35	78	529739	11.0559	ug/L	99
47)	12dichlorota	7.35	62	184915	10.5845	ug/L	98
48)	TAME	7.52	73	277572	10.0755	ug/L	94
49)	trichloroete	8.16	95	145738	11.1390	ug/L	98
50)	methylcyclohexane	8.43	83	274218	12.2060	ug/L	99
51)	12dicloropra	8.42	63	138061	10.6666	ug/L	99
52)	23Dicl1propene	8.48	75	207533	11.2088	ug/L	99
53)	Dibromometha	8.56	93	83161	10.7673	ug/L	94
54)	methylmethacrylate	8.59	69	91671	10.6157	ug/L	100
55)	14dioxane	8.60	88	89682	490.2045	ug/L	96
56)	Bromodiclrma	8.76	83	161306	11.3553	ug/L	99
57)	2Nitropropane	9.02	43	342661	126.1979	ug/L	97
58)	2CLEVE	9.15	63	183895	41.0907	ug/L	98
59)	c13dicloproe	9.33	75	193728	11.4817	ug/L	99
60)	4Meth2Pentan	9.54	43	1158544	100.7746	ug/L	99
62)	Toluene	9.79	92	359933	11.1523	ug/L	100
63)	t13Dicloprop	10.05	75	152104	10.0644	ug/L	98
64)	ethylmethacrylate	10.19	69	323322	22.2815	ug/L	99
65)	112Triclotha	10.28	83	101057	10.8979	ug/L	98
66)	Tetrachlorte	10.52	166	164527	11.2503	ug/L	99
67)	13Diclorpropa	10.51	76	220175	10.9429	ug/L	99
69)	2Hexanone	10.62	43	858437	97.8759	ug/L	100
70)	Clorodibrmta	10.81	129	125351	10.4509	ug/L	99
71)	12Dibrometha	10.96	107	124080	10.2246	ug/L	97
72)	Chlorobenzen	11.65	112	382543	10.1161	ug/L	99
73)	1Clhexane	11.63	91	194494	10.2148	ug/L	100
74)	1112Tetclota	11.76	131	109840	9.7714	ug/L	98
75)	Ethylbenzene	11.81	91	635701	10.5670	ug/L	100
76)	m p-Xylene	11.98	106	505096	20.5780	ug/L	98
77)	o-Xylene	12.52	106	250851	10.2850	ug/L	99
78)	Styrene	12.53	104	399557	10.3982	ug/L	100
79)	Bromoform	12.76	173	79553	10.6741	ug/L	98
80)	Isopropylben	13.05	105	625159	10.7670	ug/L	99
81)	cyclohexanone	13.12	55	234438	202.9745	ug/L	97
84)	Bromobenzene	13.45	156	157576	9.9442	ug/L	98
85)	1122Tetrclta	13.42	83	162820	9.8168	ug/L	96
86)	123Triclproa	13.49	75	190916	9.3978	ug/L	100
87)	14dichloro2butene	13.51	53	45300	9.3500	ug/L	97
88)	n-Propylbenz	13.63	91	690057	10.3202	ug/L	99
89)	2chlorotolue	13.74	91	411293	10.0966	ug/L	99
90)	4chlorotolue	13.89	91	475727	10.0195	ug/L	98
91)	135Trimebenz	13.89	105	492739	10.1074	ug/L	97
92)	tbutylbenzen	14.35	119	445643	10.0970	ug/L	99
93)	124Trimetben	14.43	105	477071	10.1002	ug/L	100
94)	sbutylbenzen	14.68	105	601265	10.4767	ug/L	100
95)	13Diclorbenz	14.81	146	278947	9.7390	ug/L	100
96)	pIsopropylto	14.90	119	525231	10.4400	ug/L	99
97)	14dichlorobe	14.94	146	288469	9.7427	ug/L	100
98)	12dichlorobe	15.48	146	270507	9.6501	ug/L	99
99)	nButylbenzen	15.49	91	430425	10.2219	ug/L	99
100)	12dibromo3cl	16.58	157	26322	9.1905	ug/L	93
101)	135Trichlorobenzene	16.90	180	186409	9.5750	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	159005	9.3238	ug/L	97
103) Hexachlorobu	17.96	225	73087	10.5508	ug/L	97
104) Naphthalene	18.02	128	345988	9.2242	ug/L	99
105) 123Trichlben	18.33	180	148348	9.5566	ug/L	96

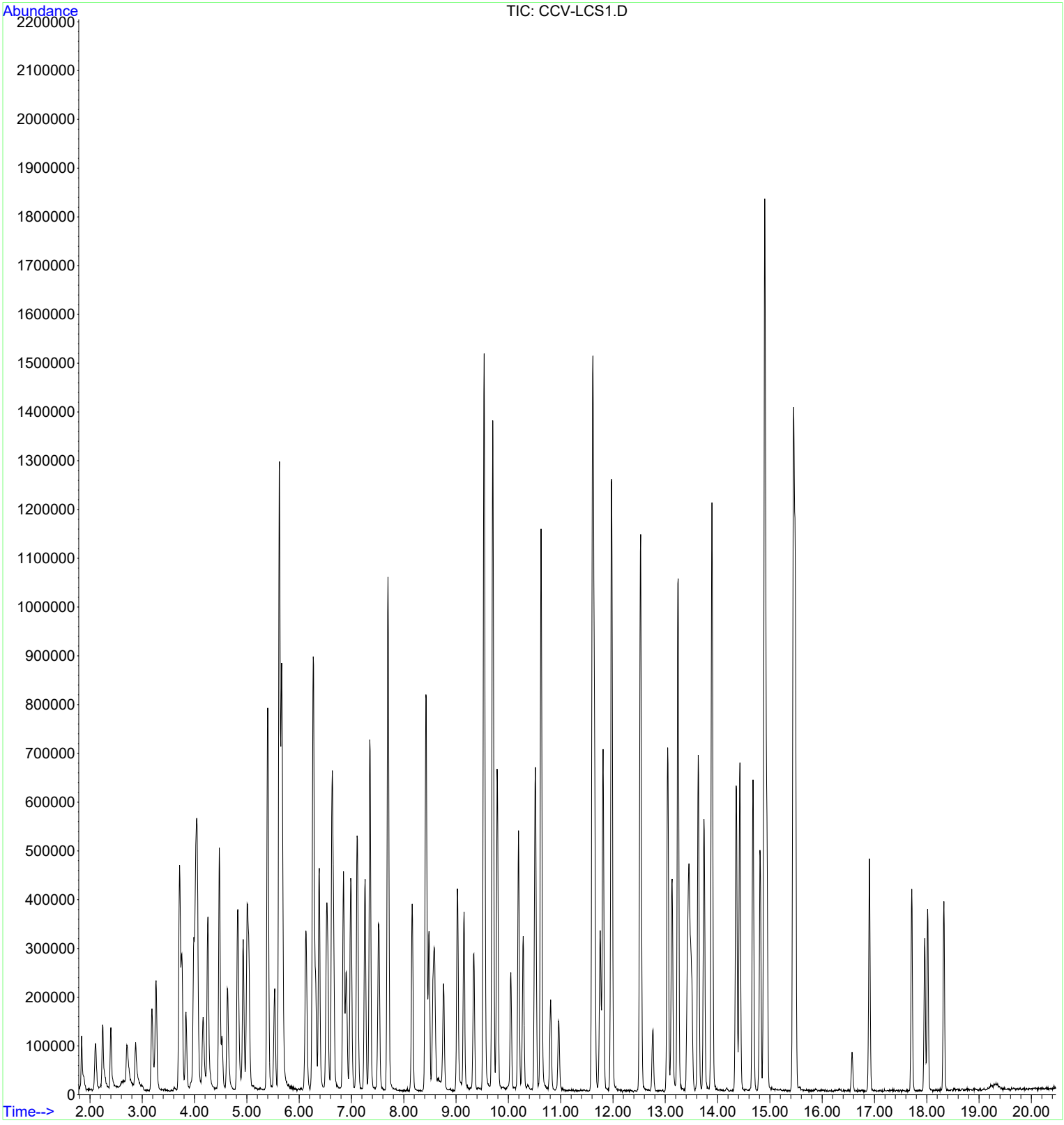
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\FEB0123\CCV-LCS1.D Vial: 3
Acq On : 1 Feb 2023 9:47 Operator: DGS-RLD
Sample : 268886,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 10:08:12 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\MB1.D Vial: 5
Acq On : 1 Feb 2023 10:46 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:06:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1054700	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	891070	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	441710	20.00	ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	289645	21.416	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 107	%		
45) SURR12DCAd4	7.26	102	73824	19.299	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 96	%		
61) SURRd8Tolule	9.70	98	1088645	20.728	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 104	%		
83) SURR4BrFBenz	13.25	95	420014	20.126	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		

Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	3320	Below	Cal #	42
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.84	59	4112	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\MB1.D Vial: 5
Acq On : 1 Feb 2023 10:46 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:06:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\MB1.D Vial: 5
Acq On : 1 Feb 2023 10:46 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:06:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	18.02	128	2592	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

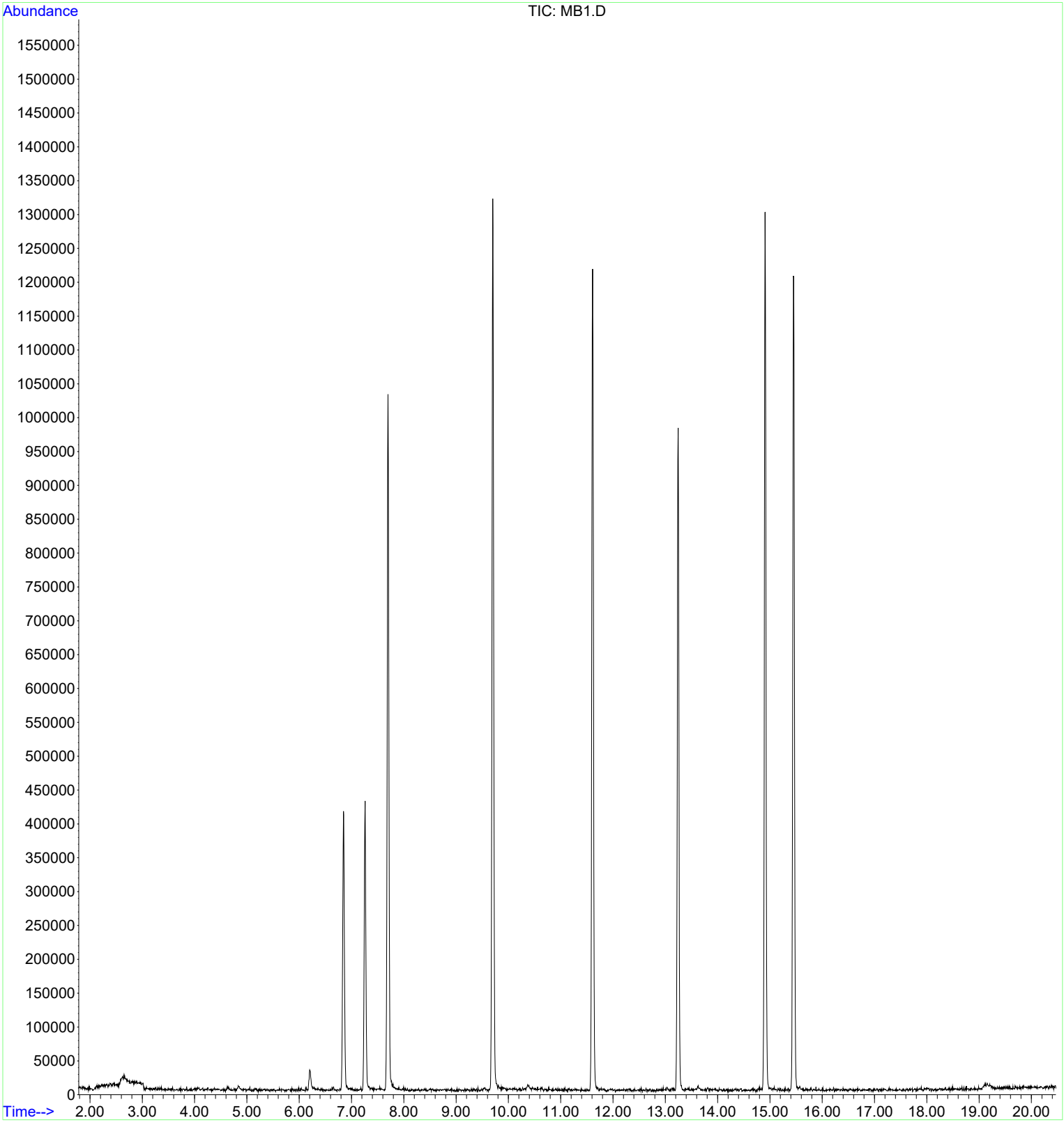
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\MB1.D Vial: 5
Acq On : 1 Feb 2023 10:46 Operator: DGS-RLD
Sample : 268886,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 01 11:06:39 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670M.D Vial: 34
Acq On : 2 Feb 2023 11:05 Operator: DGS-RLD
Sample : 268886,MSW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:25:50 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1116680	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	961203	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	519112	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	296688	20.719	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104	%		
45) SURR12DCAd4	7.26	102	82006	20.248	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1167665	20.999	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 105	%		
83) SURR4BrFBenz	13.24	95	473748	19.316	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	136436	11.5136	ug/L	100
3) Chloromethan	2.10	50	156441	10.9648	ug/L	99
4) VinylChlorid	2.24	62	194045	12.3810	ug/L	95
5) Bromomethane	2.70	94	101018	12.2294	ug/L	99
6) Chloroethane	2.87	64	128283	12.3158	ug/L	99
7) Dichloroflmethane	3.18	67	286117	11.7587	ug/L	97
8) Trichlorofma	3.26	101	240175	13.0351	ug/L	98
9) Ethylether	3.70	59	105704	9.6051	ug/L	94
10) dichlorotfluoroethan	3.72	67	232965	12.1249	ug/L	96
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	137912	45.3902	ug/L	97
13) 11dichlorthe	3.98	96	136736	12.0408	ug/L	99
14) Trichlorotfluoroeth	4.02	101	270903	23.9083	ug/L	98
15) Acetone	4.05	43	414483	94.2154	ug/L	99
16) Iodomethane	4.16	142	268617	23.6338	ug/L	99
17) Carbon Dislf	4.25	76	636147	23.0468	ug/L	99
18) allylchloride	4.47	41	367358	22.2596	ug/L	98
19) methylacetate	4.52	74	40370	10.2058	ug/L	95
20) Methylchlorid	4.63	84	139013	11.2976	ug/L	99
21) tbutylalcohol	4.82	59	574883	547.1127	ug/L	94
22) Acrylonitrile	4.92	53	286471	52.9896	ug/L	99
23) t12dichlorte	5.00	96	143611	11.4553	ug/L	99
24) MtBE	5.03	73	340838	10.5095	ug/L	98
25) Hexane	5.40	57	440915	23.9063	ug/L	98
26) 11dichlorota	5.53	63	249060	11.6552	ug/L	98
27) Vinylacetate	5.62	43	2267897	115.1952	ug/L	99
28) chloroprene	5.66	53	452726	24.1149	ug/L	98
29) Diisopether	5.68	45	408175	10.7465	ug/L	98
30) ETBE	6.13	59	330141	10.5172	ug/L	97
31) 22dichloropr	6.27	77	143827	10.2896	ug/L	98
32) c12dichlorte	6.26	96	159813	11.4337	ug/L	91
33) 2Butanone	6.27	72	191574	101.6975	ug/L	98
34) propionitrile	6.32	54	235919	101.9541	ug/L	98
35) Ethylacetate	6.38	88	30585	50.8884	ug/L #	90
36) methacrylonitrile	6.52	67	127134	20.8211	ug/L	99
37) Bromochlorma	6.55	128	74638	11.0561	ug/L	96
38) Tetrahydofur	6.63	42	450792	98.5290	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670M.D Vial: 34
Acq On : 2 Feb 2023 11:05 Operator: DGS-RLD
Sample : 268886,MSW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:25:50 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	230488	10.7766	ug/L	96
40)	111trichlota	6.90	97	193598	11.9115	ug/L	99
42)	Cyclohexane	6.99	56	266495	12.3590	ug/L	95
43)	Carbtetraclo	7.12	119	154195	11.0976	ug/L	95
44)	11dicloprope	7.11	110	79339	12.4056	ug/L	97
46)	Benzene	7.35	78	574912	11.7028	ug/L	98
47)	12dichlorota	7.35	62	196525	10.9716	ug/L	97
48)	TAME	7.52	73	302142	10.6969	ug/L	96
49)	trichloroete	8.15	95	153159	11.4175	ug/L	97
50)	methylcyclohexane	8.43	83	283764	12.3194	ug/L	99
51)	12dicloropra	8.42	63	149960	11.3002	ug/L	92
52)	23Dicl1propene	8.48	75	213893	11.2674	ug/L	99
53)	Dibromometha	8.56	93	88764	11.2093	ug/L	96
54)	methylmethacrylate	8.58	69	92860	10.4882	ug/L	96
55)	14dioxane	8.59	88	100202	534.1984	ug/L	92
56)	Bromodiclrma	8.76	83	158278	10.8673	ug/L	100
57)	2Nitropropane	9.02	43	308206	111.9146	ug/L	95
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.34	75	188075	10.8717	ug/L	96
60)	4Meth2Pentan	9.54	43	1239324	105.1423	ug/L	100
62)	Toluene	9.79	92	382694	11.5651	ug/L	100
63)	t13Dicloprop	10.05	75	149166	9.6619	ug/L	99
64)	ethylmethacrylate	10.19	69	338079	22.7238	ug/L	99
65)	112Triclotha	10.28	83	103205	10.8550	ug/L	96
66)	Tetrachlorte	10.52	166	181319	12.0927	ug/L	98
67)	13Diclorpropa	10.51	76	229345	11.1175	ug/L	99
69)	2Hexanone	10.62	43	921080	100.3597	ug/L	100
70)	Clorodibrmta	10.81	129	119167	9.5601	ug/L	97
71)	12Dibrometha	10.96	107	122845	9.6981	ug/L	99
72)	Chlorobenzen	11.65	112	407816	10.3060	ug/L	98
73)	1Clhexane	11.63	91	208234	10.4513	ug/L	99
74)	1112Tetclota	11.76	131	115624	9.8234	ug/L	99
75)	Ethylbenzene	11.81	91	679709	10.7973	ug/L	100
76)	m p-Xylene	11.98	106	555560	21.6299	ug/L	98
77)	o-Xylene	12.52	106	262120	10.2703	ug/L	98
78)	Styrene	12.53	104	417780	10.3902	ug/L	100
79)	Bromoform	12.77	173	76343	9.8888	ug/L	97
80)	Isopropylben	13.05	105	663627	10.9225	ug/L	99
81)	cyclohexanone	13.12	55	92433	76.4778	ug/L	98
84)	Bromobenzene	13.45	156	166053	9.6940	ug/L	97
85)	1122Tetrclta	13.42	83	171121	9.5443	ug/L	98
86)	123Triclproa	13.48	75	196514	8.9486	ug/L	96
87)	14dichloro2butene	13.51	53	44844	8.5624	ug/L	99
88)	n-Propylbenz	13.63	91	740808	10.2492	ug/L	98
89)	2chlorotolue	13.75	91	427477	9.7076	ug/L	97
90)	4chlorotolue	13.90	91	509825	9.9331	ug/L	99
91)	135Trimebenz	13.89	105	536579	10.1820	ug/L	100
92)	tbutylbenzen	14.36	119	480499	10.0711	ug/L	99
93)	124Trimetben	14.43	105	516407	10.1138	ug/L	98
94)	sbutylbenzen	14.68	105	660975	10.6542	ug/L	100
95)	13Diclorbenz	14.82	146	300171	9.6948	ug/L	98
96)	pIsopropylto	14.89	119	563816	10.3673	ug/L	100
97)	14dichlorobe	14.94	146	310497	9.7009	ug/L	97
98)	12dichlorobe	15.48	146	293865	9.6979	ug/L	99
99)	nButylbenzen	15.49	91	465488	10.2263	ug/L	98
100)	12dibromo3cl	16.57	157	25703	8.4275	ug/L	96
101)	135Trichlorobenzene	16.91	180	204428	9.7138	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670M.D Vial: 34
Acq On : 2 Feb 2023 11:05 Operator: DGS-RLD
Sample : 268886,MSW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:25:50 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	171646	9.3109	ug/L	98
103)	Hexachlorobu	17.96	225	76949	10.2761	ug/L	99
104)	Naphthalene	18.02	128	373285	9.2063	ug/L	99
105)	123Trichlben	18.33	180	157202	9.3682	ug/L	98

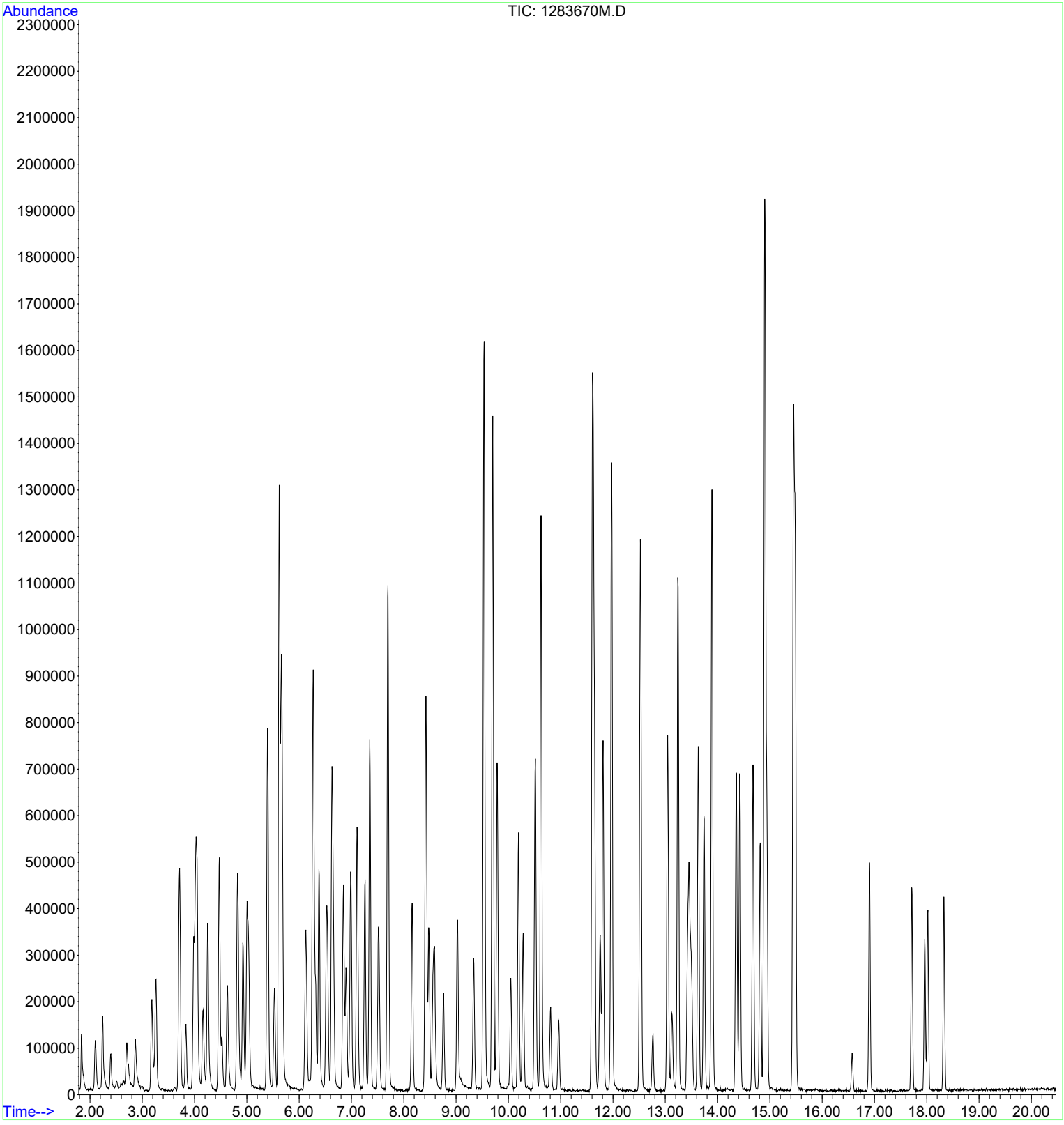
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670M.D Vial: 34
Acq On : 2 Feb 2023 11:05 Operator: DGS-RLD
Sample : 268886,MSW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:25:50 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670S.D Vial: 35
Acq On : 2 Feb 2023 11:36 Operator: DGS-RLD
Sample : 268886,MSDW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:56:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1139544	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	997735	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	524235	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	300721	20.579 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.27	102	81662	19.758 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %		
61) SURRd8Tolule	9.70	98	1199094	21.131 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 106 %		
83) SURR4BrFBenz	13.25	95	482897	19.496 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	135418	11.1984 ug/L	100
3) Chloromethan	2.10	50	146983	10.0952 ug/L	99
4) VinylChlorid	2.24	62	182163	11.3896 ug/L	97
5) Bromomethane	2.71	94	97953	11.6204 ug/L	98
6) Chloroethane	2.87	64	121496	11.4302 ug/L	100
7) Dichloroflmethane	3.18	67	266466	10.7314 ug/L	98
8) Trichlorofma	3.27	101	231719	12.3238 ug/L	97
9) Ethylether	3.70	59	105256	9.3725 ug/L	98
10) dichlorotfluoroethan	3.72	67	229400	11.6998 ug/L	98
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.84	56	137517	44.3521 ug/L	98
13) 11dichlorthe	3.98	96	128728	11.1082 ug/L	99
14) Trichlorotfluoroeth	4.02	101	270422	23.3870 ug/L	99
15) Acetone	4.05	43	412876	91.8092 ug/L	99
16) Iodomethane	4.16	142	253256	22.0543 ug/L	99
17) Carbon Dislf	4.26	76	601964	21.3709 ug/L	99
18) allylchloride	4.47	41	353308	20.9787 ug/L	97
19) methylacetate	4.52	74	39812	9.8628 ug/L	97
20) Methylchlorid	4.63	84	127927	10.1392 ug/L	97
21) tbutylalcohol	4.83	59	606149	565.2940 ug/L	95
22) Acrylonitrile	4.93	53	273393	49.5559 ug/L	99
23) t12dichlorte	5.00	96	136989	10.7078 ug/L	96
24) MtBE	5.03	73	329015	9.9414 ug/L	98
25) Hexane	5.40	57	426424	22.6567 ug/L	97
26) 11dichlorota	5.53	63	226130	10.3698 ug/L	99
27) Vinylacetate	5.62	43	2200568	108.8795 ug/L	99
28) chloroprene	5.66	53	432596	22.5804 ug/L	98
29) Diisopether	5.67	45	383627	9.8976 ug/L	94
30) ETBE	6.13	59	330666	10.3226 ug/L	98
31) 22dichloropr	6.27	77	145324	10.1960 ug/L	99
32) c12dichlorte	6.26	96	144815	10.1528 ug/L	95
33) 2Butanone	6.28	72	186133	96.8266 ug/L	99
34) propionitrile	6.32	54	228729	96.8636 ug/L	98
35) Ethylacetate	6.39	88	28997	47.2782 ug/L	96
36) methacrylonitrile	6.52	67	124291	19.9471 ug/L	95
37) Bromochlorma	6.55	128	70720	10.2656 ug/L	97
38) Tetrahydofur	6.63	42	446989	95.7376 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670S.D Vial: 35
Acq On : 2 Feb 2023 11:36 Operator: DGS-RLD
Sample : 268886,MSDW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:56:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	221625	10.1543	ug/L	97
40)	111trichlota	6.90	97	192518	11.6074	ug/L	100
42)	Cyclohexane	6.99	56	256608	11.6617	ug/L	95
43)	Carbtetraclo	7.11	119	151276	10.7036	ug/L	95
44)	11dicloprope	7.11	110	74926	11.4805	ug/L	97
46)	Benzene	7.35	78	533936	10.6506	ug/L	98
47)	12dichlorota	7.35	62	182364	9.9767	ug/L	99
48)	TAME	7.52	73	296925	10.3013	ug/L	99
49)	trichloroete	8.16	95	143175	10.4591	ug/L	100
50)	methylcyclohexane	8.43	83	280788	11.9456	ug/L	99
51)	12dicloropra	8.42	63	135886	10.0342	ug/L	94
52)	23Dicl1propene	8.48	75	203721	10.5162	ug/L	99
53)	Dibromometha	8.56	93	81371	10.0696	ug/L	97
54)	methylmethacrylate	8.58	69	95328	10.5509	ug/L	98
55)	14dioxane	8.60	88	93728	489.6584	ug/L	96
56)	Bromodiclrma	8.76	83	154221	10.3763	ug/L	99
57)	2Nitropropane	9.03	43	303915	108.4637	ug/L	97
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.34	75	184423	10.4467	ug/L	99
60)	4Meth2Pentan	9.54	43	1237743	102.9013	ug/L	99
62)	Toluene	9.79	92	360790	10.6844	ug/L	98
63)	t13Dicloprop	10.05	75	149360	9.4957	ug/L	98
64)	ethylmethacrylate	10.19	69	345063	22.7279	ug/L	97
65)	112Triclotha	10.28	83	100118	10.3190	ug/L	96
66)	Tetrachlorte	10.52	166	168689	11.0247	ug/L	100
67)	13Diclorpropa	10.51	76	212729	10.1051	ug/L	99
69)	2Hexanone	10.62	43	909951	95.5168	ug/L	99
70)	Clorodibrmta	10.81	129	117760	9.1351	ug/L	98
71)	12Dibrometha	10.97	107	119287	9.1019	ug/L	100
72)	Chlorobenzen	11.65	112	391415	9.5294	ug/L	97
73)	1Clhexane	11.63	91	208222	10.0680	ug/L	98
74)	1112Tetclota	11.76	131	112465	9.2707	ug/L	97
75)	Ethylbenzene	11.81	91	655992	10.0390	ug/L	99
76)	m p-Xylene	11.98	106	519537	19.4868	ug/L	99
77)	o-Xylene	12.52	106	249224	9.4075	ug/L	99
78)	Styrene	12.53	104	399603	9.5742	ug/L	100
79)	Bromoform	12.77	173	73924	9.3041	ug/L	97
80)	Isopropylben	13.05	105	638952	10.1313	ug/L	98
81)	cyclohexanone	13.13	55	90124	71.8371	ug/L	90
84)	Bromobenzene	13.45	156	160942	9.3038	ug/L	96
85)	1122Tetrclta	13.43	83	164988	9.1123	ug/L	96
86)	123Triclproa	13.48	75	198409	8.9466	ug/L	99
87)	14dichloro2butene	13.51	53	42912	8.1135	ug/L	95
88)	n-Propylbenz	13.64	91	713574	9.7759	ug/L	98
89)	2chlorotolue	13.75	91	411977	9.2642	ug/L	98
90)	4chlorotolue	13.90	91	474609	9.1566	ug/L	98
91)	135Trimebenz	13.89	105	518515	9.7431	ug/L	100
92)	tbutylbenzen	14.36	119	461429	9.5769	ug/L	99
93)	124Trimetben	14.43	105	483841	9.3834	ug/L	100
94)	sbutylbenzen	14.68	105	625598	9.9854	ug/L	100
95)	13Diclorbenz	14.82	146	283850	9.0781	ug/L	99
96)	pIsopropylto	14.90	119	547561	9.9700	ug/L	98
97)	14dichlorobe	14.94	146	296132	9.1617	ug/L	98
98)	12dichlorobe	15.49	146	272310	8.8988	ug/L	99
99)	nButylbenzen	15.49	91	452741	9.8491	ug/L	98
100)	12dibromo3cl	16.57	157	26220	8.4999	ug/L	99
101)	135Trichlorobenzene	16.90	180	190032	8.9415	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\FEB0123\1283670S.D Vial: 35
Acq On : 2 Feb 2023 11:36 Operator: DGS-RLD
Sample : 268886,MSDW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:56:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	164933	8.8593 ug/L	98
103) Hexachlorobu	17.96	225	72467	9.5829 ug/L	97
104) Naphthalene	18.02	128	366959	8.9618 ug/L	98
105) 123Trichlben	18.33	180	150109	8.8581 ug/L	98

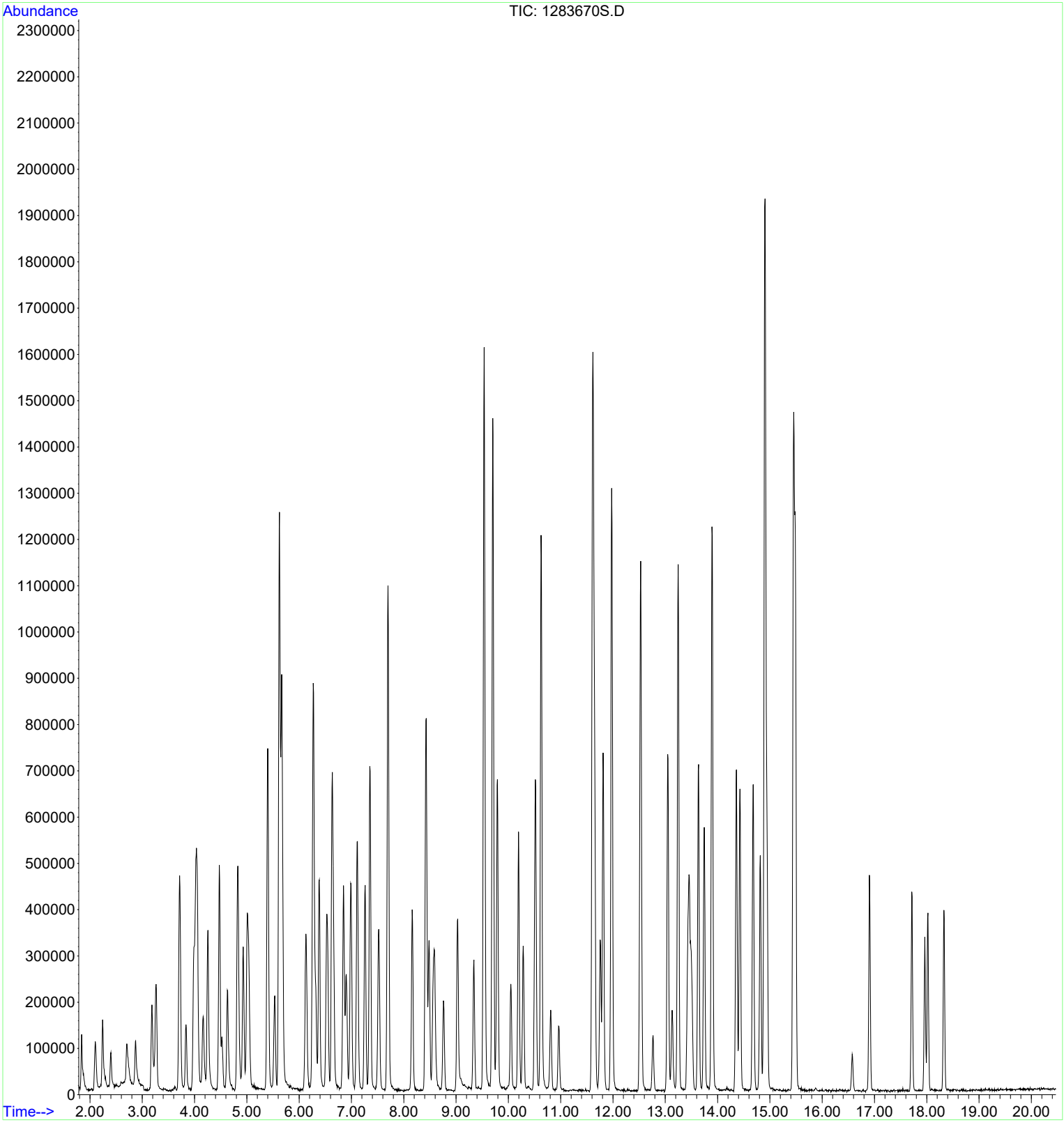
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1283670S.D Vial: 35
Acq On : 2 Feb 2023 11:36 Operator: DGS-RLD
Sample : 268886,MSDW1283670, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 11:56:34 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316M.D Vial: 36
Acq On : 2 Feb 2023 12:04 Operator: DGS-RLD
Sample : 268887,MSW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:25:27 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1123661	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	973113	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	529055	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	302560	20.998	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105	%		
45) SURR12DCAd4	7.26	102	83962	20.602	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.70	98	1187469	21.222	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 106	%		
83) SURR4BrFBenz	13.24	95	480161	19.209	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 96	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	118325	9.9232	ug/L	94
3) Chloromethan	2.10	50	153364	10.6823	ug/L	98
4) VinylChlorid	2.24	62	181614	11.5158	ug/L	94
5) Bromomethane	2.71	94	101460	12.2066	ug/L	98
6) Chloroethane	2.87	64	122585	11.6956	ug/L	98
7) Dichloroflmethane	3.18	67	276690	11.3006	ug/L	99
8) Trichlorofma	3.26	101	223592	12.0597	ug/L	99
9) Ethylether	3.71	59	107767	9.7317	ug/L	96
10) dichlorotfluoroethan	3.72	67	228623	11.8250	ug/L	99
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	139053	45.4814	ug/L	99
13) 11dichlorthe	3.99	96	133834	11.7120	ug/L	98
14) Trichlorotfluoroeth	4.02	101	250933	22.0082	ug/L	99
15) Acetone	4.05	43	430894	97.5585	ug/L	98
16) Iodomethane	4.16	142	265803	23.2888	ug/L	99
17) Carbon Dislf	4.25	76	632383	22.7681	ug/L	99
18) allylchloride	4.47	41	370554	22.3137	ug/L	96
19) methylacetate	4.53	74	39260	9.8635	ug/L	97
20) Methylchlorid	4.63	84	137310	11.0806	ug/L	99
21) tbutylalcohol	4.83	59	618778	585.2287	ug/L	96
22) Acrylonitrile	4.93	53	277318	50.9778	ug/L	97
23) t12dichlorte	5.00	96	143789	11.3982	ug/L	98
24) MtBE	5.03	73	352051	10.7878	ug/L	98
25) Hexane	5.40	57	409081	22.0425	ug/L	97
26) 11dichlorota	5.53	63	269587	12.5374	ug/L	99
27) Vinylacetate	5.62	43	2323747	117.5579	ug/L	99
28) chloroprene	5.66	53	437790	23.1745	ug/L	98
29) Diisopether	5.68	45	415035	10.8592	ug/L	92
30) ETBE	6.13	59	352767	11.1682	ug/L	98
31) 22dichloropr	6.27	77	152648	10.8085	ug/L	98
32) c12dichlorte	6.26	96	202221	14.3779	ug/L	94
33) 2Butanone	6.28	72	194869	102.8040	ug/L	97
34) propionitrile	6.31	54	237579	102.0336	ug/L	99
35) Ethylacetate	6.38	88	33265	55.0036	ug/L #	87
36) methacrylonitrile	6.52	67	132451	21.5571	ug/L	95
37) Bromochlorma	6.55	128	74272	10.9336	ug/L	95
38) Tetrahydofur	6.63	42	458547	99.6013	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316M.D Vial: 36
Acq On : 2 Feb 2023 12:04 Operator: DGS-RLD
Sample : 268887,MSW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:25:27 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	236513	10.9896	ug/L	97
40)	111trichlota	6.90	97	198290	12.1244	ug/L	97
42)	Cyclohexane	6.99	56	241151	11.1141	ug/L	96
43)	Carbtetraclo	7.12	119	156890	11.2114	ug/L	95
44)	11dicloprope	7.11	110	72306	11.2357	ug/L	98
46)	Benzene	7.36	78	564160	11.4126	ug/L	99
47)	12dichlorota	7.35	62	195856	10.8663	ug/L	99
48)	TAME	7.52	73	321914	11.3261	ug/L	98
49)	trichloroete	8.16	95	173236	12.8340	ug/L	98
50)	methylcyclohexane	8.43	83	258512	11.1534	ug/L	98
51)	12dicloropra	8.42	63	150213	11.2489	ug/L	100
52)	23Dicl1propene	8.48	75	214603	11.2346	ug/L	100
53)	Dibromometha	8.56	93	87087	10.9292	ug/L	96
54)	methylmethacrylate	8.58	69	102648	11.5217	ug/L	99
55)	14dioxane	8.59	88	100910	534.6306	ug/L	90
56)	Bromodiclrma	8.76	83	161687	11.0324	ug/L	98
57)	2Nitropropane	9.02	43	319656	115.0550	ug/L	96
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.33	75	198725	11.4160	ug/L	99
60)	4Meth2Pentan	9.54	43	1247833	105.2065	ug/L	99
62)	Toluene	9.79	92	377205	11.3284	ug/L	99
63)	t13Dicloprop	10.05	75	159658	10.2256	ug/L	99
64)	ethylmethacrylate	10.19	69	354479	23.6781	ug/L	99
65)	112Triclotha	10.28	83	103902	10.8604	ug/L	96
66)	Tetrachlorte	10.52	166	174131	11.5412	ug/L	99
67)	13Diclorpropa	10.50	76	228946	11.0292	ug/L	99
69)	2Hexanone	10.62	43	915936	98.5778	ug/L	100
70)	Clorodibrmta	10.81	129	124739	9.8605	ug/L	96
71)	12Dibrometha	10.97	107	127665	9.9432	ug/L	99
72)	Chlorobenzen	11.65	112	405321	10.1176	ug/L	98
73)	1Clhexane	11.63	91	203213	10.0745	ug/L	99
74)	1112Tetclota	11.76	131	117186	9.8331	ug/L	99
75)	Ethylbenzene	11.81	91	665301	10.4391	ug/L	100
76)	m p-Xylene	11.97	106	542203	20.8515	ug/L	97
77)	o-Xylene	12.52	106	256047	9.9096	ug/L	96
78)	Styrene	12.53	104	409901	10.0695	ug/L	99
79)	Bromoform	12.76	173	75205	9.6542	ug/L	98
80)	Isopropylben	13.05	105	651564	10.5927	ug/L	98
81)	cyclohexanone	13.13	55	99316	81.1670	ug/L	98
84)	Bromobenzene	13.45	156	165434	9.4764	ug/L	98
85)	1122Tetrclta	13.42	83	164396	8.9969	ug/L	97
86)	123Triclproa	13.48	75	197645	8.8310	ug/L	99
87)	14dichloro2butene	13.51	53	48043	9.0008	ug/L	99
88)	n-Propylbenz	13.63	91	723731	9.8247	ug/L	97
89)	2chlorotolue	13.75	91	420762	9.3756	ug/L	97
90)	4chlorotolue	13.90	91	497952	9.5195	ug/L	100
91)	135Trimebenz	13.89	105	516614	9.6189	ug/L	98
92)	tbutylbenzen	14.36	119	463076	9.5235	ug/L	99
93)	124Trimetben	14.43	105	507466	9.7519	ug/L	99
94)	sbutylbenzen	14.68	105	637298	10.0795	ug/L	100
95)	13Diclorbenz	14.82	146	296410	9.3935	ug/L	99
96)	pIsopropylto	14.89	119	548375	9.8939	ug/L	99
97)	14dichlorobe	14.94	146	298641	9.1552	ug/L	99
98)	12dichlorobe	15.48	146	282343	9.1426	ug/L	99
99)	nButylbenzen	15.49	91	459323	9.9012	ug/L	99
100)	12dibromo3cl	16.58	157	29147	9.2307	ug/L	95
101)	135Trichlorobenzene	16.90	180	197209	9.1947	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316M.D Vial: 36
Acq On : 2 Feb 2023 12:04 Operator: DGS-RLD
Sample : 268887,MSW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:25:27 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	169579	9.0259 ug/L	97
103) Hexachlorobu	17.96	225	67724	8.8741 ug/L	96
104) Naphthalene	18.02	128	383950	9.2914 ug/L	100
105) 123Trichlben	18.33	180	154458	9.0317 ug/L	99

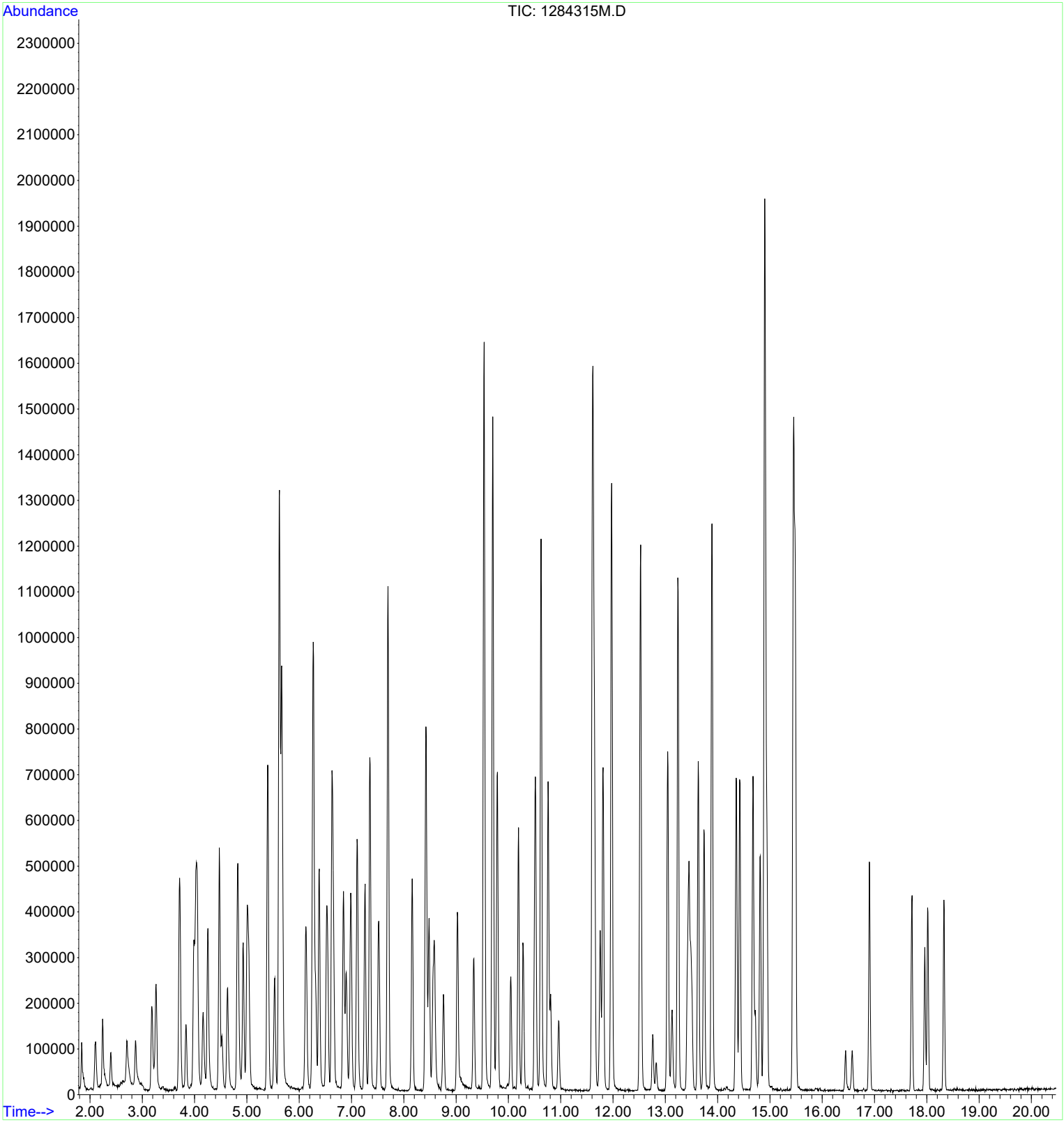
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316M.D Vial: 36
Acq On : 2 Feb 2023 12:04 Operator: DGS-RLD
Sample : 268887,MSW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:25:27 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M



Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316S.D Vial: 37
Acq On : 2 Feb 2023 12:35 Operator: DGS-RLD
Sample : 268887,MSDW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:55:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1128144	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1011058	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	534721	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	309080	21.365	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 107	%		
45) SURR12DCAd4	7.26	102	82764	20.227	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1201336	21.385	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 107	%		
83) SURR4BrFBenz	13.25	95	485560	19.219	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 96	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	132890	11.1004	ug/L	100
3) Chloromethan	2.10	50	160812	11.1566	ug/L	98
4) VinylChlorid	2.24	62	194961	12.3130	ug/L	99
5) Bromomethane	2.71	94	102245	12.2521	ug/L	98
6) Chloroethane	2.87	64	130719	12.4221	ug/L	99
7) Dichloroflmethane	3.18	67	283568	11.5355	ug/L	99
8) Trichlorofma	3.26	101	238003	12.7859	ug/L	100
9) Ethylether	3.71	59	113724	10.2289	ug/L	95
10) dichlorotfluoroethan	3.72	67	238426	12.2830	ug/L	96
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	147050	47.9059	ug/L	98
13) 11dichlorthe	3.99	96	139963	12.1997	ug/L	97
14) Trichlorotfluoroeth	4.03	101	269372	23.5316	ug/L	99
15) Acetone	4.05	43	440442	99.4460	ug/L	99
16) Iodomethane	4.16	142	283542	24.5642	ug/L	100
17) Carbon Dislf	4.26	76	673416	24.1491	ug/L	99
18) allylchloride	4.47	41	383478	23.0002	ug/L	95
19) methylacetate	4.52	74	41583	10.4056	ug/L	99
20) Methylchlorid	4.63	84	141677	11.4015	ug/L	97
21) tbutylalcohol	4.83	59	651656	613.8750	ug/L	97
22) Acrylonitrile	4.93	53	290451	53.1798	ug/L	100
23) t12dichlorte	5.00	96	147989	11.6846	ug/L	99
24) MtBE	5.03	73	367575	11.2187	ug/L	96
25) Hexane	5.40	57	425777	22.8510	ug/L	98
26) 11dichlorota	5.53	63	281022	13.0172	ug/L	99
27) Vinylacetate	5.62	43	2400627	121.3954	ug/L	99
28) chloroprene	5.67	53	456212	24.0537	ug/L	99
29) Diisopether	5.68	45	422002	10.9976	ug/L	98
30) ETBE	6.13	59	368291	11.6133	ug/L	99
31) 22dichloropr	6.26	77	165008	11.5742	ug/L	97
32) c12dichlorte	6.26	96	209122	14.8094	ug/L	91
33) 2Butanone	6.28	72	203493	106.9270	ug/L	97
34) propionitrile	6.32	54	246075	105.2624	ug/L	98
35) Ethylacetate	6.39	88	32457	53.4543	ug/L	93
36) methacrylonitrile	6.52	67	133383	21.6225	ug/L	98
37) Bromochlorma	6.55	128	77075	11.3011	ug/L	95
38) Tetrahydofur	6.63	42	478121	103.4403	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316S.D Vial: 37
Acq On : 2 Feb 2023 12:35 Operator: DGS-RLD
Sample : 268887,MSDW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:55:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	243794	11.2829	ug/L	99
40)	111trichlota	6.90	97	210329	12.8094	ug/L	98
42)	Cyclohexane	6.99	56	261337	11.9966	ug/L	95
43)	Carbtetraclo	7.12	119	171830	12.1475	ug/L	95
44)	11dicloprope	7.11	110	81531	12.6188	ug/L	93
46)	Benzene	7.35	78	583787	11.7627	ug/L	99
47)	12dichlorota	7.35	62	202160	11.1715	ug/L	99
48)	TAME	7.52	73	335809	11.7680	ug/L	99
49)	trichloroete	8.16	95	178790	13.1928	ug/L	98
50)	methylcyclohexane	8.43	83	281374	12.0915	ug/L	99
51)	12dicloropra	8.42	63	154735	11.5415	ug/L	92
52)	23Dicl1propene	8.48	75	225715	11.7693	ug/L	99
53)	Dibromometha	8.56	93	88018	11.0022	ug/L	97
54)	methylmethacrylate	8.59	69	102862	11.4998	ug/L	99
55)	14dioxane	8.60	88	99718	526.2159	ug/L	92
56)	Bromodiclrma	8.76	83	168085	11.4234	ug/L	99
57)	2Nitropropane	9.02	43	326877	117.0064	ug/L	98
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.34	75	208266	11.9165	ug/L	97
60)	4Meth2Pentan	9.54	43	1315101	110.4374	ug/L	100
62)	Toluene	9.79	92	389970	11.6652	ug/L	99
63)	t13Dicloprop	10.05	75	169483	10.7653	ug/L	99
64)	ethylmethacrylate	10.19	69	374142	24.8922	ug/L	97
65)	112Triclotha	10.28	83	106720	11.1106	ug/L	94
66)	Tetrachlorte	10.53	166	184009	12.1474	ug/L	99
67)	13Diclorpropa	10.51	76	231892	11.1267	ug/L	99
69)	2Hexanone	10.62	43	974472	100.9417	ug/L	100
70)	Clorodibrmta	10.81	129	128666	9.7943	ug/L	99
71)	12Dibrometha	10.97	107	132492	9.9324	ug/L	97
72)	Chlorobenzen	11.65	112	408825	9.8221	ug/L	99
73)	1Clhexane	11.63	91	218784	10.4393	ug/L	99
74)	1112Tetclota	11.76	131	123977	9.9936	ug/L	97
75)	Ethylbenzene	11.81	91	695628	10.5053	ug/L	99
76)	m p-Xylene	11.98	106	556603	20.6019	ug/L	99
77)	o-Xylene	12.52	106	272934	10.1667	ug/L	99
78)	Styrene	12.53	104	415653	9.8276	ug/L	99
79)	Bromoform	12.77	173	78496	9.6930	ug/L	99
80)	Isopropylben	13.05	105	694434	10.8660	ug/L	100
81)	cyclohexanone	13.13	55	99466	78.2387	ug/L	94
84)	Bromobenzene	13.45	156	171761	9.7346	ug/L	98
85)	1122Tetrclta	13.43	83	174097	9.4268	ug/L	96
86)	123Triclproa	13.49	75	207261	9.1625	ug/L	98
87)	14dichloro2butene	13.51	53	48600	9.0087	ug/L	95
88)	n-Propylbenz	13.64	91	771010	10.3556	ug/L	99
89)	2chlorotolue	13.75	91	449862	9.9178	ug/L	99
90)	4chlorotolue	13.90	91	511520	9.6752	ug/L	98
91)	135Trimebenz	13.89	105	536425	9.8820	ug/L	96
92)	tbutylbenzen	14.36	119	486860	9.9065	ug/L	98
93)	124Trimetben	14.43	105	525076	9.9834	ug/L	99
94)	sbutylbenzen	14.68	105	668462	10.4603	ug/L	99
95)	13Diclorbenz	14.82	146	305227	9.5704	ug/L	98
96)	pIsopropylto	14.90	119	582508	10.3984	ug/L	100
97)	14dichlorobe	14.94	146	312383	9.4750	ug/L	99
98)	12dichlorobe	15.49	146	294729	9.4425	ug/L	99
99)	nButylbenzen	15.49	91	479956	10.2364	ug/L	99
100)	12dibromo3cl	16.57	157	32320	9.9983	ug/L	85
101)	135Trichlorobenzene	16.91	180	202434	9.3383	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316S.D Vial: 37
Acq On : 2 Feb 2023 12:35 Operator: DGS-RLD
Sample : 268887,MSDW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:55:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	183643	9.6709 ug/L	97
103) Hexachlorobu	17.97	225	72605	9.4129 ug/L	93
104) Naphthalene	18.02	128	411148	9.8441 ug/L	99
105) 123Trichlben	18.33	180	162033	9.3742 ug/L	99

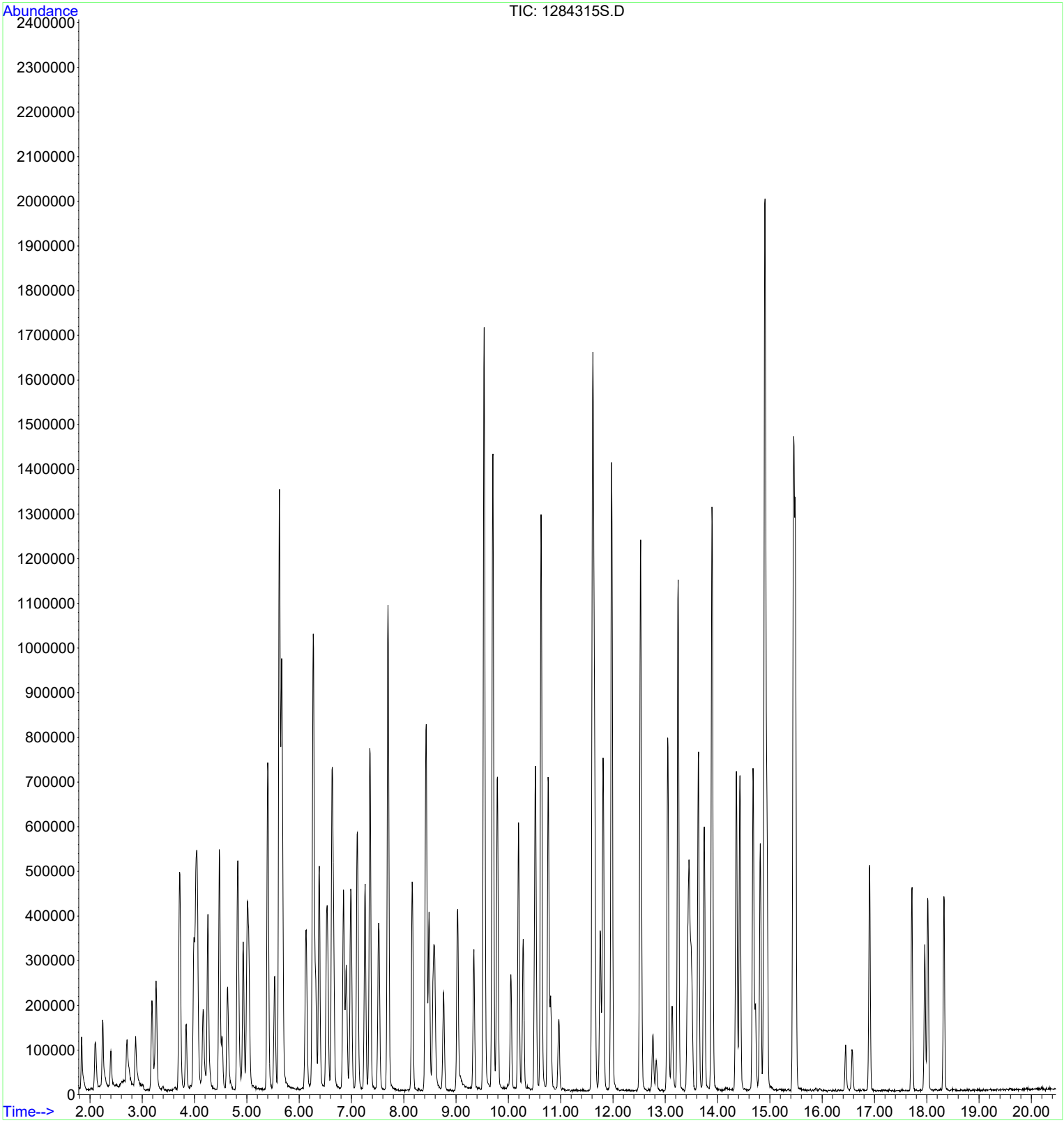
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\FEB0123\1284316S.D Vial: 37
Acq On : 2 Feb 2023 12:35 Operator: DGS-RLD
Sample : 268887,MSDW1284316, Inst : VMS3
Misc : 10.0/100 ug/L,pH<2,5.0 mL Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Feb 02 12:55:47 2023 Results File: W010323.RES

Quant Method : C:\INSTARCH\METHODS\W010323.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Jan 06 08:35:35 2023
Response via : Initial Calibration
DataAcq Meth : W010323.M

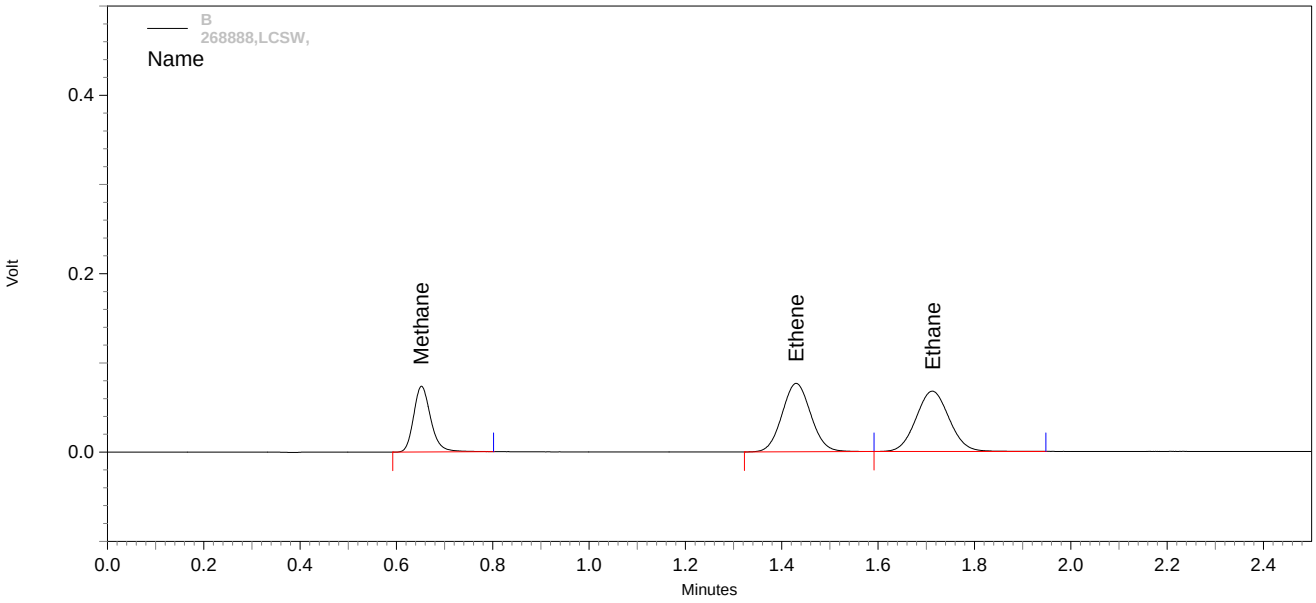


Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,LCSW,
Acquired: Jan 31, 2023 08:16:31
File Desc. Laboratory Control Sample - 25 ppmV -

500 uL of the 200 ppmV MEE Std. into 4 mL of headspace. 1.0 mL injection (Methane, Ethene, Ethane,)



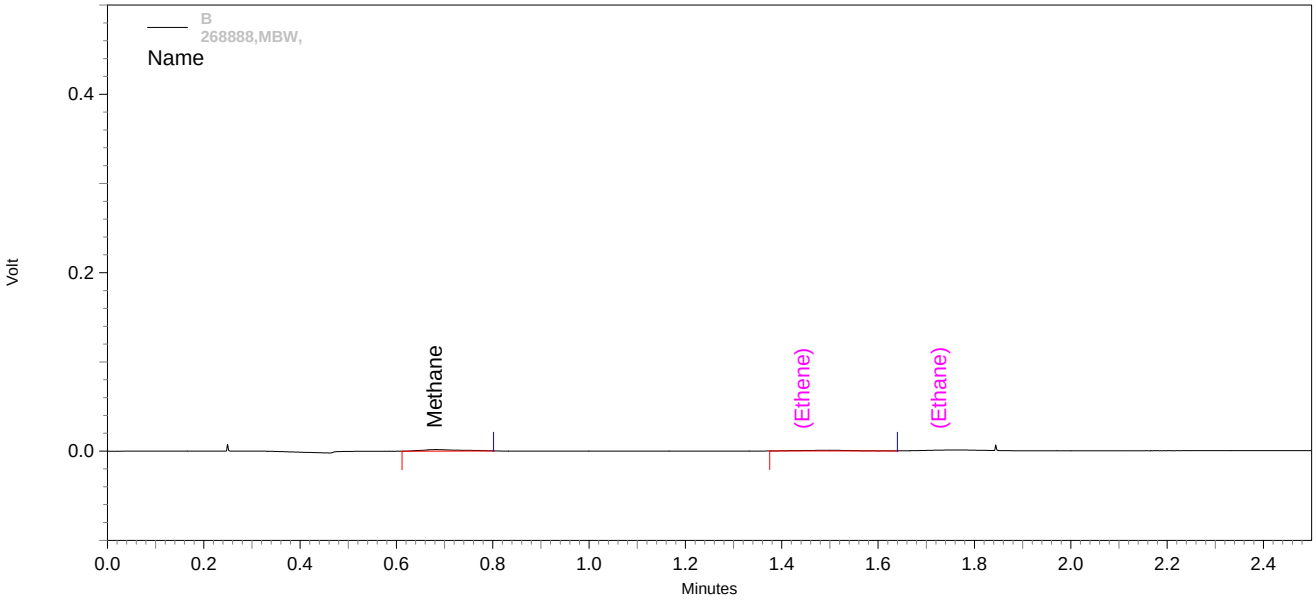
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.652**	**0.644**	**181685**	**27.045**	**ppmV**
2	**Ethene**	**1.430**	**1.442**	**317106**	**23.698**	**ppmV**
3	**Ethane**	**1.713**	**1.726**	**322925**	**24.197**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,MBW,
Acquired: Jan 31, 2023 08:22:21
File Desc. Method Blank
1.0 mL injection (Methane, Ethene, Ethane)



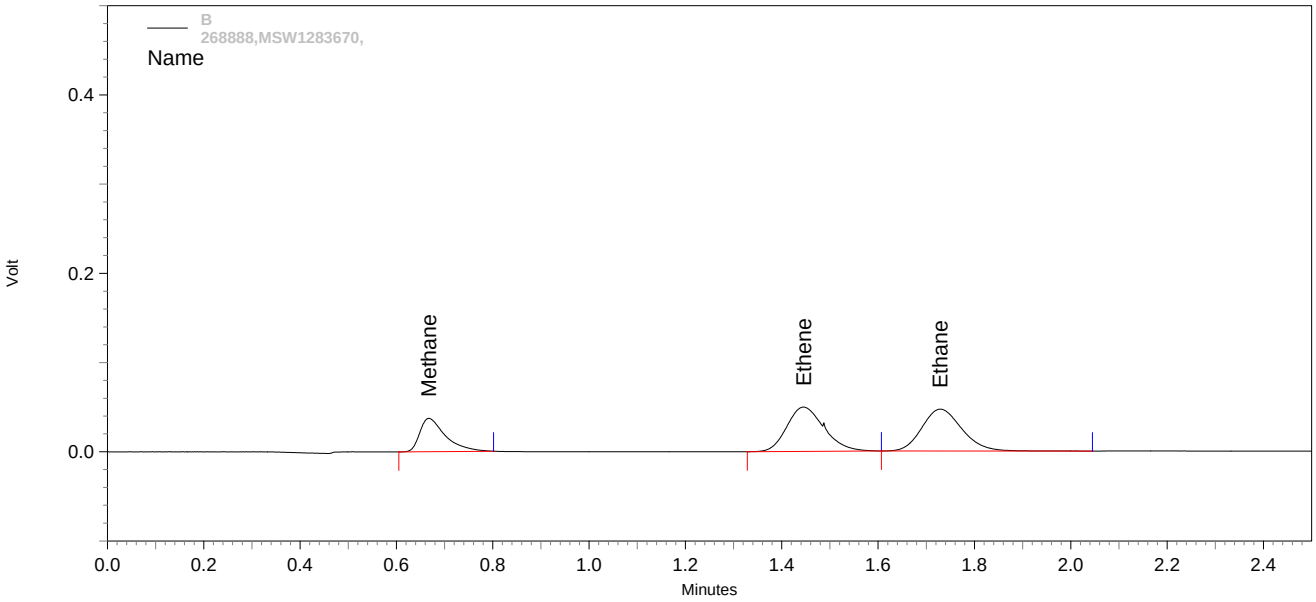
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.679**	**0.644**	**9275**	**1.246**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
2		**1.489**	**0.000**	**5103**	**0.000**	
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,MSW1283670,
Acquired: Jan 31, 2023 08:33:33
File Desc. MATRIX SPIKE 1.0mL injection (Methane, Ethene, Ethane)



B Results

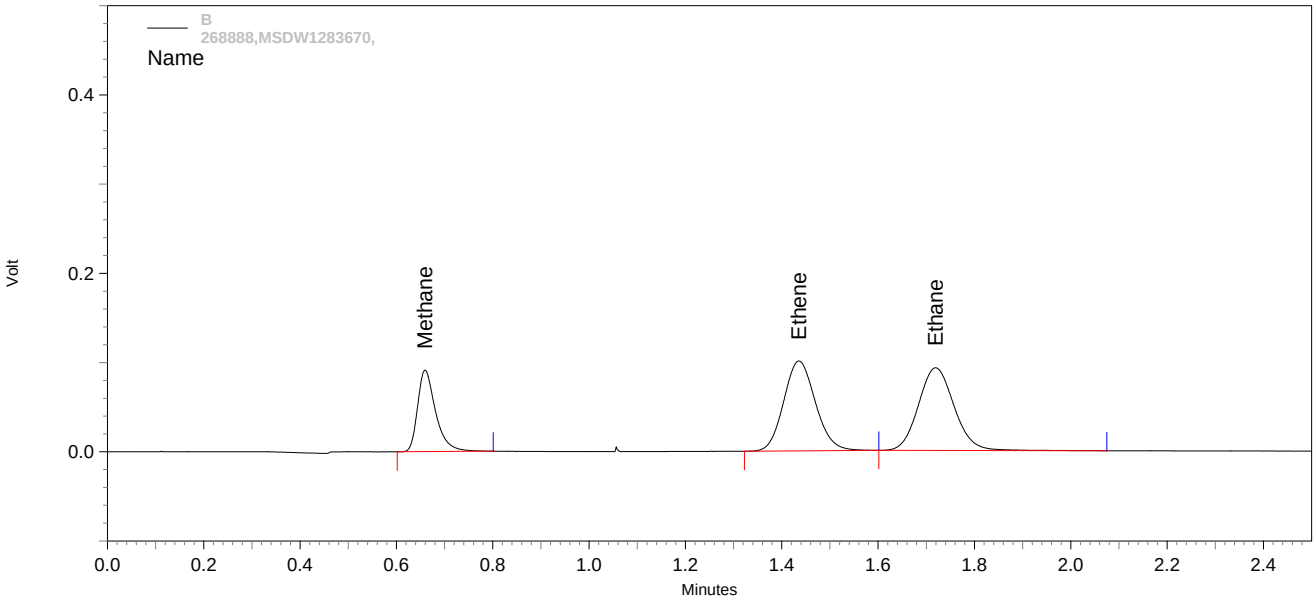
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.667**	**0.644**	**137909**	**20.494**	**ppmV**
2	**Ethene**	**1.446**	**1.442**	**266964**	**20.328**	**ppmV**
3	**Ethane**	**1.729**	**1.726**	**270182**	**20.627**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,MSDW1283670,
Acquired: Jan 31, 2023 08:37:26
File Desc. MATRIX SPIKE DUPLICATE 1.0mL injection (Methane, Ethene, Ethane)

NOT USED



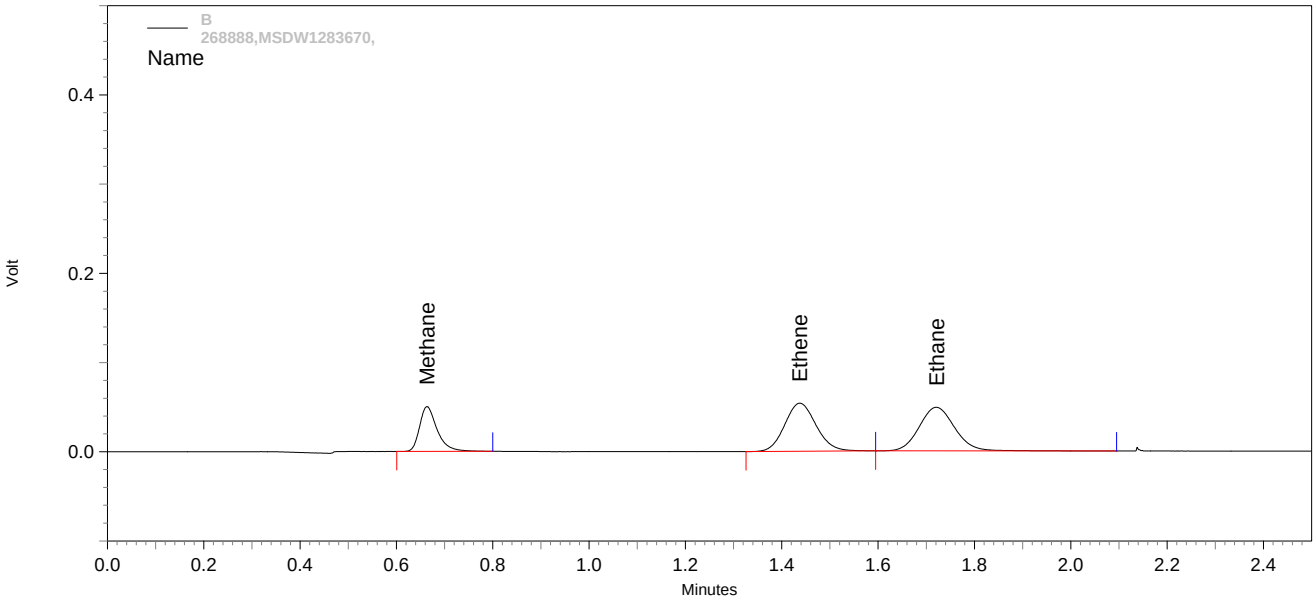
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.659**	**0.644**	**237325**	**35.370**	**ppmV**
2	**Ethene**	**1.435**	**1.442**	**460860**	**33.361**	**ppmV**
3	**Ethane**	**1.719**	**1.726**	**477418**	**34.653**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\013123 -\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268888,MSDW1283670,
Acquired: Jan 31, 2023 08:42:09
File Desc. MATRIX SPIKE DUPLICATE 1.0mL injection (Methane, Ethene, Ethane)



B Results

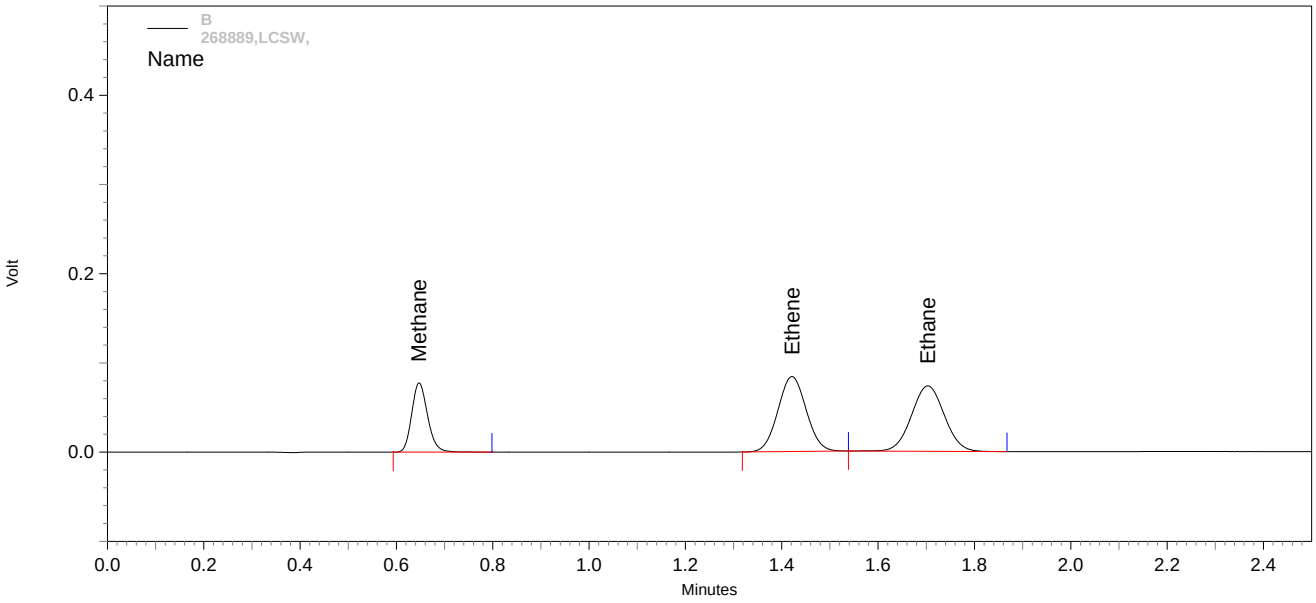
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.663**	**0.644**	**126958**	**18.856**	**ppmV**
2	**Ethene**	**1.438**	**1.442**	**244045**	**18.787**	**ppmV**
3	**Ethane**	**1.722**	**1.726**	**250866**	**19.320**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,LCSW,
Acquired: Feb 01, 2023 09:35:45
File Desc. Laboratory Control Sample - 25 ppmV -

500 uL of the 200 ppmV MEE Std. into 4 mL of headspace. 1.0 mL injection (Methane, Ethene, Ethane,)



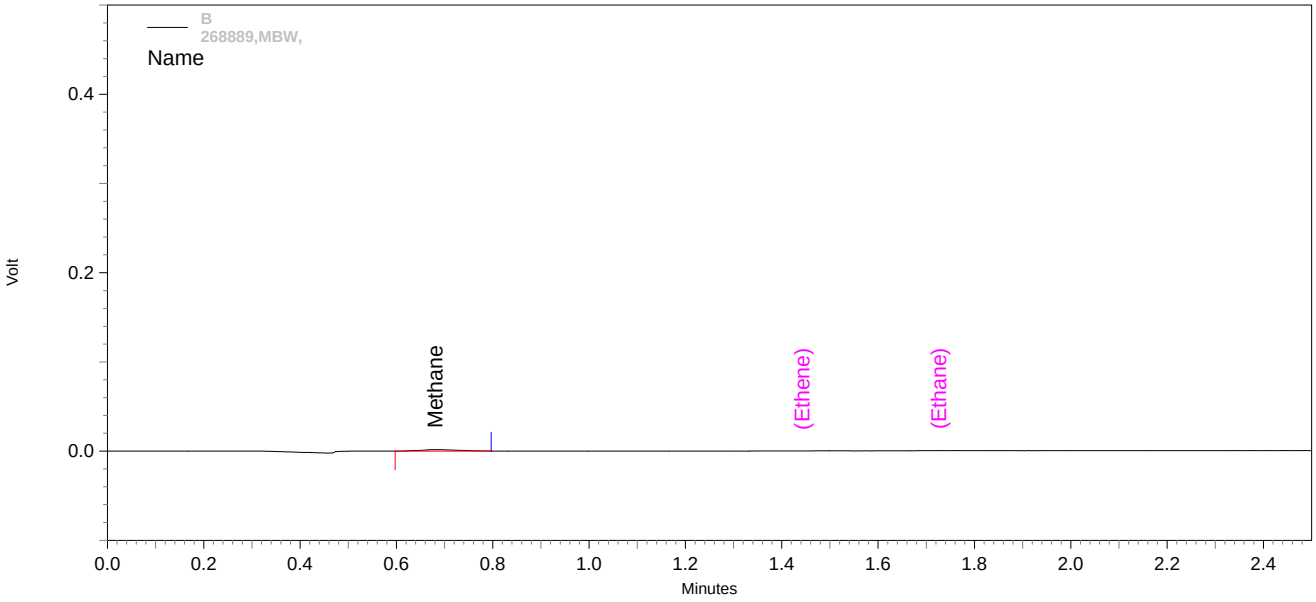
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.647**	**0.644**	**178092**	**26.507**	**ppmV**
2	**Ethene**	**1.422**	**1.442**	**342272**	**25.390**	**ppmV**
3	**Ethane**	**1.703**	**1.726**	**347974**	**25.892**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\020123 -\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG012323.met
Sample ID: 268889,MBW,
Acquired: Feb 01, 2023 09:43:59
File Desc. Method Blank
1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.680**	**0.644**	**9106**	**1.221**	**ppmV**
	Ethene		**1.442**		**0.000 BDL**	**ppmV**
	Ethane		**1.726**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS

VOC 8260 QSM WATER 5.0 Analytical Run
268887 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285776						VOC 8260 QSM WATER 5.0				
				BFB				0			
	1285431						VOC 8260 QSM WATER 5.0				
				CCV				0			
	1285432						VOC 8260 QSM WATER 5.0				
				LCSW				0			
	1285594						VOC 8260 QSM WATER 5.0				
				MBW				0			
175116	1284314		1/26/2023 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		TB-2									
175116	1284315		1/26/2023 11:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW7									
175116	1284316		1/26/2023 12:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW6									
175116	1284317		1/27/2023 08:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW1									
175116	1284318		1/27/2023 09:16		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW1-EQB									
175116	1284319		1/27/2023 10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW03									
175116	1284320		1/27/2023 11:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW2									
175116	1284321		1/27/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW3									
175116	1284322		1/27/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48TW3									
175116	1284323		1/27/2023 14:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW01									
175116	1284324		1/27/2023 15:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		50MW2									
	1285756						VOC 8260 QSM WATER 5.0				
				CCVF				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

VOC 8260 QSM WATER 5.0 Analytical Run
268887 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285778						VOC 8260 QSM WATER 5.0				
				BFB				0			
	1285772						VOC 8260 QSM WATER 5.0				
				CCV				0			
	1285803						VOC 8260 QSM WATER 5.0				
				CCB				0			
	1285963		1/26/2023 12:50				VOC 8260 QSM 5.0				
		48MW6		MSW	1284316			0			
	1285964		1/26/2023 12:50				VOC 8260 QSM 5.0				
		48MW6		MSDW	1285963			0			
	1286156						VOC 8260 QSM WATER 5.0				
				CCVF				0			

22 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

VOC 8260 QSM WATER 5.0 Analytical Run
268886 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285775							VOC 8260 QSM WATER 5.0				
					BFB				0			
	1285429							VOC 8260 QSM WATER 5.0				
					LCSW				0			
	1285430							VOC 8260 QSM WATER 5.0				
					CCV				0			
	1285593							VOC 8260 QSM WATER 5.0				
					MBW				0			
175065	1283669		1/24/2023	00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		M	4	
		TB-1										
175065	1283670		1/24/2023	09:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		13MW5			Designated MS/MSD							
175065	1283671		1/24/2023	10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		13MW4										
175065	1283672		1/24/2023	11:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		13MW3										
175065	1283673		1/24/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		49MW04										
175065	1283674		1/24/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		49TW04										
175065	1283675		1/24/2023	13:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		13MW2										
175065	1283676		1/24/2023	14:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	VOC 8260 QSM 5.0		GW	4	
		49MW05										
	1285755							VOC 8260 QSM WATER 5.0				
					CCVF				0			
	1285777							VOC 8260 QSM WATER 5.0				
					BFB				0			
	1285771							VOC 8260 QSM WATER 5.0				
					CCV				0			
	1285802							VOC 8260 QSM WATER 5.0				
					CCB				0			
	1285858		1/24/2023	09:40				VOC 8260 QSM 5.0				
		13MW5			MSW 1283670				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

VOC 8260 QSM WATER 5.0 Analytical Run
268886 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285889		1/24/2023 09:40				VOC 8260 QSM 5.0				
		13MW5		MSDW 1285858				0			
	1286175						VOC 8260 QSM WATER 5.0				
				CCVF				0			

19 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\FEB0123\BFB1.D
Injection Date : 1 Feb 2023 Log Time Period (hrs) : ALL
Injection Time : 09:04 Total files within period : 37
Sample Directory : C:\INSTARCH\DATA\FEB0123\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	268886,LCSW, 10.0/100 ug/L, 5.0 m	1 Feb 2023	09:47
MB1	1.00	1.00	1.00	268886,MBW, pH<2,5.0 mL DI H20 P	1 Feb 2023	10:46
1283669	1.00	1.00	1.00	268886,1283669, pH<2,5.0 mL Purged	1 Feb 2023	11:16
1284314	1.00	1.00	1.00	268887,1284314, pH<2,5.0 mL Purged	1 Feb 2023	11:44
1283670	1.00	1.00	1.00	268886,1283670, pH<2,5.0 mL Purged	1 Feb 2023	12:14
1283671	1.00	1.00	1.00	268886,1283671, pH<2,5.0 mL Purged	1 Feb 2023	12:44
1283672	1.00	1.00	1.00	268886,1283672, pH<2,5.0 mL Purged	1 Feb 2023	13:14
1283673	1.00	1.00	1.00	268886,1283673, pH<2,5.0 mL Purged	1 Feb 2023	13:44
1283674	1.00	1.00	1.00	268886,1283674, pH<2,5.0 mL Purged	1 Feb 2023	14:12
1283675	1.00	1.00	1.00	268886,1283675, pH<2,5.0 mL Purged	1 Feb 2023	14:43
1283676	1.00	1.00	1.00	268886,1283676, pH<2,5.0 mL Purged	1 Feb 2023	15:14
1284315	1.00	1.00	1.00	268887,1284315, pH 7,5.0 mL Purged	1 Feb 2023	15:42
1284316	1.00	1.00	1.00	268887,1284316, pH<2,5.0 mL Purged	1 Feb 2023	16:13
1284317	1.00	1.00	1.00	268887,1284317, pH<2,5.0 mL Purged	1 Feb 2023	16:42
1284318	1.00	1.00	1.00	268887,1284318, pH<2,5.0 mL Purged	1 Feb 2023	17:12
1284319	1.00	1.00	1.00	268887,1284319, pH<2,5.0 mL Purged	1 Feb 2023	17:43
1284320	1.00	1.00	1.00	268887,1284320,	1 Feb 2023	18:11

				pH<2,5.0 mL Purged	
1284321	1.00	1.00	1.00	268887,1284321,	1 Feb 2023 18:42
				pH<2,5.0 mL Purged	
1284322	1.00	1.00	1.00	268887,1284322,	1 Feb 2023 19:11
				pH<2,5.0 mL Purged	
1284323	1.00	1.00	1.00	268887,1284323,	1 Feb 2023 19:40
				pH<2,5.0 mL Purged	
1284324	1.00	1.00	1.00	268887,1284324,	1 Feb 2023 20:10
				pH<2,5.0 mL Purged	
CCVF1	1.00	1.00	1.00	268886,CCVF,	1 Feb 2023 20:39
				10.0/100 ug/L, 5.0 m	
BFB2	1.00	1.00	1.00	268886,BFB,	2 Feb 2023 07:22
				50 ng Inj.	
CCV-LCS2	1.00	1.00	1.00	268886,LCSW,	2 Feb 2023 08:07
				10.0/100 ug/L, 5.0 m	
CCB-MB2	1.00	1.00	1.00	268886,MBW,	2 Feb 2023 09:06
				pH<2,5.0 mL DI H20 P	
1283670M	1.00	1.00	1.00	268886,MSW1283670,	2 Feb 2023 11:05
				10.0/100 ug/L,pH<2,5	
1283670S	1.00	1.00	1.00	268886,MSDW1283670,	2 Feb 2023 11:36
				10.0/100 ug/L,pH<2,5	
1284316M	1.00	1.00	1.00	268887,MSW1284316,	2 Feb 2023 12:04
				10.0/100 ug/L,pH<2,5	
1284316S	1.00	1.00	1.00	268887,MSDW1284316,	2 Feb 2023 12:35
				10.0/100 ug/L,pH<2,5	
VF2-LCD1	1.00	1.00	1.00	268886,CCVF,	2 Feb 2023 13:04
				10.0/100 ug/L, 5.0 m	

8260 ISTD/SSTD 20ug/ml VOC1046
8260 BFB STD. 50ug/ml VOC1045
8260 ICV STD. 100ug/ml VOC1047
8260 CCV/CALIB. 100ug/ml VOC1051

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W010323.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\JAN0323\BFB1.D
Injection Date : 3 Jan 2023 Log Time Period (hrs) : ALL
Injection Time : 10:41 Total files within period : 21
Sample Directory : C:\INSTARCH\DATA\JAN0323\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	3 Jan 2023	11:55
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	3 Jan 2023	12:54
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	3 Jan 2023	13:24
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	3 Jan 2023	13:53
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	3 Jan 2023	14:23
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	3 Jan 2023	14:53
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	3 Jan 2023	15:22
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	3 Jan 2023	15:52
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	3 Jan 2023	16:21
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	3 Jan 2023	17:20
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	3 Jan 2023	17:49
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2, 5.0 mL Purged	3 Jan 2023	19:46

8260 ISTD/SSTD 20ug/ml VOC1046
8260 BFB STD. 50ug/ml VOC1045
8260 ICV STD. 100ug/ml VOC1047
8260 CCV/CALIB. 100ug/ml VOC1048

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
268993	02/02/2023	TMG	RLD	02/10/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits	Yes		Yes		
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1053	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1022 into 2925uL of MeOH.	MeOH / B&J / EB199-US	50 ug/mL	02/06/2023	03/06/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1054	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / EB199-US	20 ug/mL	02/06/2023	03/06/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1055	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1035, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1037 into 2250uL of MeOH.	MeOH / EB199-US	100 ug/mL	02/06/2023	02/13/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1056	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1036, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1038 into 2250uL of MeOH.	MeOH / EB199-US	100 ug/mL	02/06/2023	02/13/2023	RLD

Standard Log #:	VOC1052	Standard/Reagent:	CCV RECERTIFICATION
Analyst:	RLD	Final Concentration:	100 ug/ml
Prep Date:	01/30/2023	Expiration Date:	02/06/2023
Prep:	Recertified 8260 std VOC1050. Lot #'s affected VOC mix (V1030) VOC additions (V1032), and VOC special additions (V1034).		

Standard Log #:	VOC1051	Standard/Reagent:	CCV RECERTIFICATION
Analyst:	DGS	Final Concentration:	100 ug/ml
Prep Date:	01/27/2023	Expiration Date:	02/03/2023
Prep:	Recertified 8260 std VOC1048. Lot #'s affected VOC mix (V1030) VOC additions (V1032), and VOC special additions (V1034).		

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1049	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1031, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1033 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	01/16/2023	01/19/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1050	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1032, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1034 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	01/16/2023	01/19/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1045	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1002 into 2925uL of MeOH.	MeOH / B&J / EB199-US	50 ug/mL	01/03/2023	02/03/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1046	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / B&J / EB199-US	20 ug/mL	01/03/2023	02/03/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1047	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1031, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V10.33 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	01/03/2023	01/10/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1048	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1032, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1034 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	01/03/2023	01/10/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1043	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1031, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1033 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	12/19/2022	12/26/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1044	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1032, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1034 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	12/19/2022	12/26/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1040	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1031, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1033 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	12/09/2022	12/16/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1041	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1032, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1034 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	12/09/2022	12/16/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1036	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1002 into 2925uL of MeOH.	MeOH / B&J / EB199-US	50 ug/mL	11/28/2022	12/28/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1037	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / B&J / EB199-US	20 ug/mL	11/28/2022	12/28/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1038	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1031, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1033 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	11/28/2022	12/05/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1039	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1032, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1034 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	11/28/2022	12/05/2022	RLD

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1035	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	NA230125010
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	07/24/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1036	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	ND230125013
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	07/24/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1037	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	ND230125009
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	04/25/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1038	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	NA230127011
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	04/27/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1031	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP221024012
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	4/22/2023	11/07/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1032	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP221025017
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	004/23/2022	11/07/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Caiib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1033	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	CP221021003
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	01/19/2023	11/08/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1034	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	CP221025018
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	01/23/2022	11/08/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Caiib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1030	8260 VOC Mix	Agilent	DWM-588-1	0006657212
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	01/31/2025	09/29/2022	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1026	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	CP220822007
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	11/20/2022	08/25/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1027	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	MP220822009
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	11/20/2022	08/25/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1028	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP220823003
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	02/19/2023	08/31/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1029	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	MP220824016
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	02/20/2023	08/31/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

LVPO1_05_VOC
Volatiles Standard Prep Logbook
Logbook Created 04/05/2022
NOTEBOOK VIEW: LTN_LPVO1_05_VOC_Default, NOTEBOOK: LPVO1_05_VOC, PAGE: 6
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 072022

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0998	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1002 into 2925uL of MeOH.	MeOH / B&J / EB199-U	50 ug/mL	07/20/2022	08/20/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0999	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0978 into 25mL of MeOH.	MeOH / B&J / EB199-U	20 ug/mL	07/20/2022	08/20/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1000	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1020, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1022 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	07/20/2022	07/27/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1001	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1017, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1021, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1023 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	07/20/2022	07/27/2022	RLD

1

CT Laboratories, LLC

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1025	1,2-Dichlorobenzene-$_{d4}$	Agilent	STS-210-1	0006625676
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	08/31/2025	07/27/2022	RLD
# of Ampules/Units:	4	Comments:	Used for surrogate standard preparation for PVOC/GRO and 524.2 SDWA.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1024	8260 VOC Mix	AccuStandard	M-502-10X-PAK	222031459
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	03/31/2025	07/22/2022	RLD
# of Ampules/Units:	5	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1020	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	AA220512015
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	09/10/2022	05/23/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1021	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	NA220517019
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	09/15/2022	05/23/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1022	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	AA220513011
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	11/09/2022	05/31/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1023	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP220516015
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	11/12/2022	05/31/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib.Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1017	8260 VOC Mix	Agilent	DWM-588-1	0006602588
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	06/30/2024	05/19/2022	RLD
# of Ampules/Units:	4	Comments:	Used for preparation of 8260 CCV/Calib. Standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1008	8260 VOC Mix	AccuStandard	M-502-10X-PAK	221071133
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	07/13/2024	12/14/2021	RLD
# of Ampules/Units:	5	Comments:	Used for 8260 ICV/Spking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1002	4-Bromofluorobenzene	Agilent	STS-110N	0006629793
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	09/30/2028	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 BFB Std. and PVOC/GRO SSTD. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1003	8260 VOC Mix	Agilent	DWM-588-1	0006602588
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	05/31/2024	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0991	8260 ISTD/SSTD Mix	Agilent	STM-540	0006595713
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,500 ug/mL	MeOH	04/30/2024	05/24/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 IS/SS standard mix preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0978	1,2-Dichlorobenzene-$_{d4}$	Agilent	STS-210-1	0006552847
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	09/30/2024	01/14/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8015/8260 SSTD preparation.	

V METH, ETH, ETHENE QSM 5.0 Analytical Run
268888 on 1/31/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285246						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			
	1284327						METH,ETH,ETHE QSM 5.0				
				LCSW				128475			
	1284326						METH,ETH,ETHE QSM 5.0				
				MBW				128475			
175065	1283670		1/24/2023 09:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW5		Designated MS/MSD				128475			
	1285244		1/24/2023 09:40				METH,ETH,ETHE QSM 5.0				
		13MW5		MSW 1283670				128475			
	1285245		1/24/2023 09:40				METH,ETH,ETHE QSM 5.0				
		13MW5		MSDW 1285244				128475			
175065	1283671		1/24/2023 10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW4						128475			
175065	1283672		1/24/2023 11:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW3						128475			
175065	1283673		1/24/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW04						128475			
175065	1283674		1/24/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49TW04						128475			
175065	1283675		1/24/2023 13:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW2						128475			
175065	1283676		1/24/2023 14:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW05						128475			
	1285247						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			

13 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

PrepWrkSht
on 1/31/2023

Prep Batch **128,475** Date Prepped: 1/31/2023 Prepped By:: DGS

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	1284326	MBW		METH,ETH,ETHE QSM 5.0	LIQUID	23.2				
	1284327	LCSW		METH,ETH,ETHE QSM 5.0	LIQUID	23.2				
175065	1283670	sample designated for QC		METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1283671			METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1283672			METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1283673			METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1283674			METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1283675			METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1283676			METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2			4	
	1285244	MSW	1283670	METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2				
	1285245	MSDW	1285244	METH,ETH,ETHE QSM 5.0	GROUND WATER	23.2				

Notes:_____

VOT25

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 1/31/2023 **Instrument:** PVOC4

Calibration Date: 1/23/2023 **Analyst:** DGS

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	1.0	43	23.2	✓
2	CCV	0.25	43	23.2	✓
3	LCS	1.0	43	23.2	✓
4	MB	1.0	43	23.2	✓
5	1283670	1.0	43	23.2	<2
6	MS1283670	1.0	43	23.2	<2
7	MSD1283670	1.0	43	23.2	<2
8	MSD1283670	1.0	43	23.2	<2
9	1283671	1.0	43	23.2	<2
10	1283672	1.0	43	23.2	<2
11	1283673	1.0	43	23.2	<2
12	1283674	1.0	43	23.2	<2
13	1283675	1.0	43	23.2	<2
14	1283676	1.0	43	23.2	<2
15	CCV	0.25	43	23.2	✓
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

Calibration Standard Ref. #: VOC0845

Second Source Ref. #: VOC0992

Page 1

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\013123 - 268888.seq
Instrument: PVOC4
Processing Date: Jan 31, 2023 10:17:02

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
1	PS	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 07:58:45
2	268888,CCV,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:09:08
3	268888,LCSW,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:16:31
4	268888,MBW,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:22:21
5	268888,1283670,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:29:04
6	268888,MSW1283670,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:33:33
7	268888,MSDW1283670,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:37:26
8	268888,MSDW1283670,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:42:09
9	268888,1283671,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:46:25
10	268888,1283672,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 08:56:54
11	268888,1283673,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 09:02:14
12	268888,1283674,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 09:51:40
13	268888,1283675,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 10:01:07
14	268888,1283676,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 10:10:02
15	268888,CCV,	C:\InStarch\PVOC4\Data\013123 ...	C:\Instarch\PVOC4\Methods\P4...	Jan 31, 2023 10:17:02

FVO1-01 Data Review Checklist

	FVO1-01 Method: Dissolved Gases (EPA SW-846 8015 / RSK 175 Modified)					
LIMS Run #(s)	**Analysis Date (s)**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**	**Instrument**
268888	01/31/2023	DGS	RLD	02/01/2023	Yes	PVOC4

Instructions: Complete one checklist per *analytical sequence*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
1. INITIAL CALIBRATION (ICAL)		**Yes**	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
a. Was the initial calibration performed using a minimum of five concentration levels?	Lowest standard at or below RL	Yes		Yes		
b. For each analyte/component is the variation between calibration response factors for all concentration levels <20% RSD or is $r^2 \geq .99$ or $r \geq .995$ for the regression line?	RSD <20% or $r^2 \geq .99$ or $r \geq .995$ or program/project specific	Yes		Yes		
c. Are the identification and date of the ICAL listed on the printout (or PDF) of the analytical run and in the method file?	ID# and date of ICAL listed	Yes		Yes		
d. Was an Initial Calibration Verification (ICV) analyzed after the ICAL?	Analyzed prior to sample analyses	Yes		Yes		
e. Were the recoveries for each analyte in the ICV within required limits?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
f. Was an Initial Calibration Blank (ICB) analyzed?		Yes		Yes		
g. Were the ICB results for all target analytes/components less than the reporting limit (RL)?	<RL or < program/project specific	Yes		Yes		
2. CONTINUING CALIBRATION VERIFICATION (CCV)						
a . Was a CCV analyzed at the beginning and end of a sequential analysis run, as well as after ever 10 samples?		Yes		Yes		
b. Were the recoveries for each analyte/component in the CCV within acceptance criteria?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
3. METHOD BLANKS (MB)						
a. Was a method blank (MB) analyzed?	1 / 20 or program/project specific	Yes		Yes		
b. Were the MB results for all analytes/components less than reporting limit?	All target analytes/components <RL or within program/project specific limits (DoD-QSM: <1/2 the RL)	Yes		Yes		
4. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at the required frequency?	1 / 20 or program/project specific	Yes		Yes		
b. Were LCS recoveries for all analytes within the acceptance criteria?	Default = 70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
c. If LCS recoveries exceed acceptance criteria, was the LCS reanalyzed in an effort to eliminate the possibility of a preparation error?		Yes		Yes		

5. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATES (MSD) and DUPLICATE						
a. Was a MS, MSD, and/or Duplicate (if valid) Vial analyzed with each batch of 20 samples (or program-specified frequency)?	1 / 20 or program/project specific frequency (QSM samples, duplicate only valid if sample result ≥ 5x the LOQ)	Yes				
b. Were MS/MSD recoveries for all analytes within acceptance criteria?	Default =70-130%, or within In-house generated or program/project specific limits	Yes				
6. PRECISION						
a. Is the relative percent difference (RPD) for each analyte between duplicate QC samples (i.e. parent sample / Duplicate vial), or for each MS/MSD within the acceptance criteria?	Default = 20 % RPD, or within In-house generated or program/project specific limits	Yes		Yes		
7. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed or reanalyzed using a smaller sample aliquot? Affected analyte detects should remain above the limit of quantitation (LOQ) after reanalysis.		Yes		Yes		
c. Was the correct ambient temperature recorded on sample spreadsheets?		Yes		Yes		
d. Were all samples adequately preserved and analyzed within holding time?	CO_2 samples received unpreserved (analyze within 7 days or program/project specific) Methane, Ethene, Ethane samples received preserved to <2 (analyze within 14 days or program/project specific)	Yes		Yes		
8. RECORDS AND REPORTING						
a. Is a sequence run file present in the raw data file?		Yes		Yes		
b. Is the data initialed and dated by analyst?	Analysis Run sheet is initialed & dated by the analyst processing the raw data.	Yes		Yes		
c. Do all values, units, etc. listed match the raw data and associated calculations and records?		Yes		Yes		
e. Has the data been electronically transferred to the LIMS and were the applicable qualifiers assigned?		Yes		Yes		
f. Were manual integrations addressed properly and were the audit trails turned on (where applicable)?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms. Audit trail must be on (if available).	Yes		Yes		
g. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

* Non-Applicable Yes/No Cells Are Left Blank*

Comments: _____

V METH, ETH, ETHENE QSM 5.0 Analytical Run
268889 on 2/1/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285535							V METH, ETH, ETHENE QSM 5.0				
					CCV				0			
	1284330							METH,ETH,ETHE QSM 5.0				
					LCSW				128476			
	1284329							METH,ETH,ETHE QSM 5.0				
					MBW				128476			
175116	1284315		1/26/2023	11:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW7							128476			
175116	1284316		1/26/2023	12:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW6							128476			
175116	1284317		1/27/2023	08:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW1							128476			
175116	1284318		1/27/2023	09:16		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW1-EQB							128476			
175116	1284319		1/27/2023	10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW03							128476			
175116	1284320		1/27/2023	11:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW2							128476			
175116	1284321		1/27/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW3							128476			
175116	1284322		1/27/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48TW3							128476			
175116	1284323		1/27/2023	14:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW01							128476			
175116	1284324		1/27/2023	15:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		50MW2							128476			
	1285537							V METH, ETH, ETHENE QSM 5.0				
					CCV				0			

14 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

PrepWrkSht
on 2/1/2023

Prep Batch **128,476** Date Prepped: 1/31/2023 Prepped By:: DGS

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	1284329	MBW		METH,ETH,ETHE QSM 5.0	LIQUID	22.6				
	1284330	LCSW		METH,ETH,ETHE QSM 5.0	LIQUID	22.6				
	1284331	LCSDW	1284330	METH,ETH,ETHE QSM 5.0	LIQUID	22.6				
175116	1284315			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284316			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284317			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284318			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284319			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284320			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284321			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284322			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284323			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	
	1284324			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.6			4	

Notes:_____

VOT25

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 2/1/2023 **Instrument:** PVOC4

Calibration Date: 1/23/2023 **Analyst:** DGS

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	1.0	43	22.6	/
2	CCV	0.25	43	22.6	/
3	LCS	1.0	43	22.6	/
4	MB	1.0	43	22.6	/
5	1284315	1.0	43	22.6	7
6	1284316	1.0	43	22.6	<2
7	1284317	1.0	43	22.6	<2
8	1284318	1.0	43	22.6	<2
9	1284319	1.0	43	22.6	<2
10	1284320	1.0	43	22.6	<2
11	1284321	1.0	43	22.6	<2
12	1284322	1.0	43	22.6	<2
13	1284323	1.0	43	22.6	<2
14	1284324	1.0	43	22.6	<2
15	CCV	0.25	43	22.6	/
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

Calibration Standard Ref. #: VOC0845

Second Source Ref. #: VOC0992

Page 1

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\020123 - 268889.seq
Instrument: PVOC4
Processing Date: Feb 01, 2023 11:32:41

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
1	PS	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:28:27
2	268889,CCV,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:32:24
3	268889,LCSW,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:35:45
4	268889,MBW,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:43:59
5	268889,1284315,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:50:33
6	268889,1284316,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:54:23
7	268889,1284317,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 09:58:04
8	268889,1284318,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 10:03:14
9	268889,1284319,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 10:06:47
10	268889,1284320,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 10:10:24
11	268889,1284321,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 10:17:04
12	268889,1284322,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 10:48:42
13	268889,1284323,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 11:19:50
14	268889,1284324,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 11:23:40
15	268889,CCV,	C:\InStarch\PVOC4\Data\020123 ...	C:\Instarch\PVOC4\Methods\P4...	Feb 01, 2023 11:32:41

FVO1-01 Data Review Checklist

	FVO1-01 Method: Dissolved Gases (EPA SW-846 8015 / RSK 175 Modified)					
LIMS Run #(s)	**Analysis Date (s)**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**	**Instrument**
268889	02/01/2023	DGS	RLD	02/01/2023	Yes	PVOC4

Instructions: Complete one checklist per *analytical sequence*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
1. INITIAL CALIBRATION (ICAL)		**Yes**	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
a. Was the initial calibration performed using a minimum of five concentration levels?	Lowest standard at or below RL	Yes		Yes		
b. For each analyte/component is the variation between calibration response factors for all concentration levels <20% RSD or is $r^2 \geq .99$ or $r \geq .995$ for the regression line?	RSD <20% or $r^2 \geq .99$ or $r \geq .995$ or program/project specific	Yes		Yes		
c. Are the identification and date of the ICAL listed on the printout (or PDF) of the analytical run and in the method file?	ID# and date of ICAL listed	Yes		Yes		
d. Was an Initial Calibration Verification (ICV) analyzed after the ICAL?	Analyzed prior to sample analyses	Yes		Yes		
e. Were the recoveries for each analyte in the ICV within required limits?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
f. Was an Initial Calibration Blank (ICB) analyzed?		Yes		Yes		
g. Were the ICB results for all target analytes/components less than the reporting limit (RL)?	<RL or < program/project specific	Yes		Yes		
2. CONTINUING CALIBRATION VERIFICATION (CCV)						
a . Was a CCV analyzed at the beginning and end of a sequential analysis run, as well as after ever 10 samples?		Yes		Yes		
b. Were the recoveries for each analyte/component in the CCV within acceptance criteria?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
3. METHOD BLANKS (MB)						
a. Was a method blank (MB) analyzed?	1 / 20 or program/project specific	Yes		Yes		
b. Were the MB results for all analytes/components less than reporting limit?	All target analytes/components <RL or within program/project specific limits (DoD-QSM: <1/2 the RL)	Yes		Yes		
4. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at the required frequency?	1 / 20 or program/project specific	Yes		Yes		
b. Were LCS recoveries for all analytes within the acceptance criteria?	Default = 70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
c. If LCS recoveries exceed acceptance criteria, was the LCS reanalyzed in an effort to eliminate the possibility of a preparation error?		Yes		Yes		

5. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATES (MSD) and DUPLICATE						
a. Was a MS, MSD, and/or Duplicate (if valid) Vial analyzed with each batch of 20 samples (or program-specified frequency)?	1 / 20 or program/project specific frequency (QSM samples, duplicate only valid if sample result ≥ 5x the LOQ)	N/A		N/A		
b. Were MS/MSD recoveries for all analytes within acceptance criteria?	Default =70-130%, or within In-house generated or program/project specific limits	N/A		N/A		
6. PRECISION						
a. Is the relative percent difference (RPD) for each analyte between duplicate QC samples (i.e. parent sample / Duplicate vial), or for each MS/MSD within the acceptance criteria?	Default = 20 % RPD, or within In-house generated or program/project specific limits	N/A		N/A		
7. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed or reanalyzed using a smaller sample aliquot? Affected analyte detects should remain above the limit of quantitation (LOQ) after reanalysis.		Yes		Yes		
c. Was the correct ambient temperature recorded on sample spreadsheets?		Yes		Yes		
d. Were all samples adequately preserved and analyzed within holding time?	CO_2 samples received unpreserved (analyze within 7 days or program/project specific) Methane, Ethene, Ethane samples received preserved to <2 (analyze within 14 days or program/project specific)		No		No	Improperly preserved sample was T flagged
8. RECORDS AND REPORTING						
a. Is a sequence run file present in the raw data file?		Yes		Yes		
b. Is the data initialed and dated by analyst?	Analysis Run sheet is initialed & dated by the analyst processing the raw data.	Yes		Yes		
c. Do all values, units, etc. listed match the raw data and associated calculations and records?		Yes		Yes		
e. Has the data been electronically transferred to the LIMS and were the applicable qualifiers assigned?		Yes		Yes		
f. Were manual integrations addressed properly and were the audit trails turned on (where applicable)?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms. Audit trail must be on (if available).	Yes		Yes		
g. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

* Non-Applicable Yes/No Cells Are Left Blank*

Comments:

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\012323 - ICAL MEE.seq
Instrument: PVOC4
Processing Date: Jan 23, 2023 11:49:03

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
1	PS	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:32:19
2	MEE PT1 - 2 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:35:51
3	MEE PT2 - 5 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:39:25
4	MEE PT3 - 10 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:43:18
5	MEE PT4 - 20 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:46:45
6	MEE PT5 - 50 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:53:48
7	MEE PT6 - 100 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 10:57:20
8	MEE PT7 - 150 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 11:21:49
9	MEE PT8 - 200 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 11:26:34
10	ICV - 50 ppmV	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 11:37:14
11	ICB	C:\Instarch\PVOC4\Data\012323\...	C:\Instarch\PVOC4\Methods\P4...	Jan 23, 2023 11:49:03

VOT25

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 1/23/2023 **Instrument:** PVOC4

Calibration Date: 1/23/2023 **Analyst:** DGS

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	1.0	43	22.1	2
2	Pt 1	0.01	43	22.1	
3	Pt 2	0.025	43	22.1	
4	Pt 3	0.05	43	22.1	
5	Pt 4	0.1	43	22.1	
6	Pt 5	0.25	43	22.1	
7	Pt 6	0.5	43	22.1	
8	Pt 7	~~0.0~~0.75	43	22.1	
9	Pt 8	1.0	43	22.1	
10	ICV	0.25	43	22.1	
11	ICB	1.0	43	22.1	
12			43		
13			43		
14			43		
15			43		
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

Calibration Standard Ref. #: VOC0845

Second Source Ref. #: VOC0992

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 64
Page is Locked
Author: rdigmann on: 5/25/2018 7:47:52 AM
Witness: akurth on: 7/31/2018 9:54:19 AM
Project: Unassigned
Page Title: 05/24/18

Standard Log #:	VO886	Standard/Reagent:	Methane Ethene Ethane STI
Analyst:	AGK	Final Concentration:	200.0 PPM
Prep Date:	05/24/18	Expiration Date:	05/17/21
Prep:	Airgas Methane, Ethene, Ethane Standard Received 05/24/18 LOT# 54-401204472-1 REF# 54-401204472-1 Cylinder # P180959		

Standard Log #:	VOC0845	Standard/Reagent:	MEE GAS STANDARD
Analyst:	KMT	Final Concentration:	200 ppmV
Prep Date:	05/19/2021	Expiration Date:	04/14/2024
Prep:	AIRGAS PART: X04HE99C353Q80 LOT: 54-402075924-1		

Standard Log #:	VOC0846	Standard/Reagent:	MEE RECERTIFICATION O
Analyst:	KMT	Final Concentration:	N/A
Prep Date:	05/19/2021	Expiration Date:	05/19/2022
Prep:	Recertification of methane, ethane, ethane tank (V0886). Ran 4 consecutive CCV's with acceptable recoveries.		

LVPO1_05_VOC
Volatiles Standard Prep Logbook
Logbook Created 04/05/2022
NOTEBOOK VIEW: LTN_LPVO1_05_VOC_Default, NOTEBOOK: LPVO1_05_VOC, PAGE: 2
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 062422

Standard Log #:	VOC0992	Standard/Reagent:	MEE RECERTIFICATION O
Analyst:	DGS	Final Concentration:	N/A
Prep Date:	06/24/2022	Expiration Date:	06/24/2023
Prep:	Recertification of methane, ethane, ethane tank (V0886). Ran 5 consecutive CCV's with acceptable recoveries and deviation.		

1

CT Laboratories, LLC

Airgas
an Air Liquide company

Re Cert VOC0992 5/19/2022 Exp: 5/19/2022 kmT Expires 5/17/21 V0886 HGK 5/24/18

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

Re Cert VOC0992 exp 6/24/20

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-401204472-1
Cylinder Number:	P180959	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	May 17, 2018	Valve Outlet:	350
Lot Number:	54-401204472-1		

Expiration Date: May 17, 2021

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	198.9 PPM	+/- 2%
ETHYLENE	200.0 PPM	198.3 PPM	+/- 2%
METHANE	200.0 PPM	198.3 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

VOC0845 Expires: 7/17/2024
KMT
5/19/2021

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-402075924-1
Cylinder Number:	N698768	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	Apr 14, 2021	Valve Outlet:	350
Lot Number:	54-402075924-1		

Expiration Date: Apr 14, 2024

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	199.8 PPM	+/- 2%
ETHYLENE	200.0 PPM	207.3 PPM	+/- 2%
METHANE	200.0 PPM	200.2 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

METALS
CLP FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 7470A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268967	Analysis Date/Time:	02/02/2023 10:40
Analytical Prep Batch #:	128485	Prep. Date/Time:	01/31/2023 14:30

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 6010C	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268912	Analysis Date/Time:	01/31/2023 17:14
Analytical Prep Batch #:	128482	Prep. Date/Time:	01/30/2023 10:30

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	17400		29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	8.8	J	7.7	20	40	40
7440-39-3	Total Barium	198		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	138000		17	50	100	100
7440-47-3	Total Chromium	26.1		1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	12.3		0.55	2.5	5.0	5.0
7440-50-8	Total Copper	32.0	J	5.2	20	40	40
7439-89-6	Total Iron	23100	M	11	40	80	80
7439-92-1	Total Lead	29.5		1.4	2.0	4.0	4.6
7439-95-4	Total Magnesium	80200		10	25	40	40
7439-96-5	Total Manganese	826	M	1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	21.7		1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	6060		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	20400		200	500	700	700
7440-28-0	Total Thallium	8.9	J M	6.8	20	40	40
7440-62-2	Total Vanadium	27.5		1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	82.2		4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285973

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	2/2/23 10:12	3.0	3.06	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285696

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	1/31/23	14:42	100000	95800	96	90	110
Sodium	1/31/23	14:42	100000	102000	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285697

ICAL Calibration #:

Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	1/31/23	14:49	3000	3500	117	80	120
Sodium	1/31/23	14:49	6000	6400	107	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1285710

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	1/31/23	14:42	12000	11100	92	90	110
Antimony	1/31/23	14:42	500.0	509.0	102	90	110
Arsenic	1/31/23	14:42	2000	2090	104	90	110
Barium	1/31/23	14:42	2000	1940	97	90	110
Beryllium	1/31/23	14:42	50.0	49.10	98	90	110
Cadmium	1/31/23	14:42	50.0	48.10	96	90	110
Calcium	1/31/23	14:42	10000	9930	99	90	110
Chromium	1/31/23	14:42	200.0	201.0	100	90	110
Cobalt	1/31/23	14:42	500.0	503.0	101	90	110
Copper	1/31/23	14:42	250.0	231.0	92	90	110
Iron	1/31/23	14:42	5000	5100	102	90	110
Lead	1/31/23	14:42	500.0	488.0	98	90	110
Magnesium	1/31/23	14:42	10000	9840	98	90	110
Manganese	1/31/23	14:42	500.0	492.0	98	90	110
Nickel	1/31/23	14:42	500.0	501.0	100	90	110
Selenium	1/31/23	14:42	2000	2040	102	90	110
Silver	1/31/23	14:42	50.0	48.70	97	90	110
Thallium	1/31/23	14:42	2000	1880	94	90	110
Vanadium	1/31/23	14:42	500.0	502.0	100	90	110
Zinc	1/31/23	14:42	500.0	522.0	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912

Lab Sample ID: 1285711

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	1/31/23	14:49	1200	1230	102	80	120
Antimony	1/31/23	14:49	60.0	65.10	108	80	120
Arsenic	1/31/23	14:49	60.0	67.90	113	80	120
Barium	1/31/23	14:49	30.0	34.00	113	80	120
Beryllium	1/31/23	14:49	12.00	12.90	108	80	120
Cadmium	1/31/23	14:49	15.00	17.20	115	80	120
Calcium	1/31/23	14:49	1500	1650	110	80	120
Chromium	1/31/23	14:49	30.0	32.10	107	80	120
Cobalt	1/31/23	14:49	30.0	33.60	112	80	120
Copper	1/31/23	14:49	30.0	32.20	107	80	120
Iron	1/31/23	14:49	900.0	1020	113	80	120
Lead	1/31/23	14:49	30.0	29.50	98	80	120
Magnesium	1/31/23	14:49	1500	1640	109	80	120
Manganese	1/31/23	14:49	30.0	32.70	109	80	120
Nickel	1/31/23	14:49	30.0	32.50	108	80	120
Selenium	1/31/23	14:49	60.0	70.50	118	80	120
Thallium	1/31/23	14:49	60.0	62.50	104	80	120
Vanadium	1/31/23	14:49	30.0	33.20	111	80	120
Zinc	1/31/23	14:49	30.0	31.90	106	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912

Lab Sample ID: 1285715

ICAL Calibration #:

Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	1/31/23 15:40	10.0	12.20	122		

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285975

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	2/2/23 10:53	3.0	2.87	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285977

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	2/2/23	11:34	3.0	2.69	90	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285978

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	2/2/23 11:37	3.0	3.13	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285702

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	1/31/23	16:54	50000	49500	99	90	110
Sodium	1/31/23	16:54	50000	50800	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285703

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	1/31/23	17:00	5000	5280	106	90	110
Sodium	1/31/23	17:00	5000	5200	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285707

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	1/31/23	18:26	50000	49400	99	90	110
Sodium	1/31/23	18:26	50000	50000	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285708

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	1/31/23	18:33	5000	5340	107	90	110
Sodium	1/31/23	18:33	5000	5250	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1285716

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	1/31/23	16:54	5000	4920	98	90	110
Antimony	1/31/23	16:54	5000	5210	104	90	110
Arsenic	1/31/23	16:54	5000	5280	106	90	110
Barium	1/31/23	16:54	5000	5150	103	90	110
Beryllium	1/31/23	16:54	500.0	529.0	106	90	110
Cadmium	1/31/23	16:54	500.0	499.0	100	90	110
Calcium	1/31/23	16:54	5000	5080	102	90	110
Chromium	1/31/23	16:54	5000	5180	104	90	110
Cobalt	1/31/23	16:54	5000	5270	105	90	110
Copper	1/31/23	16:54	5000	4950	99	90	110
Iron	1/31/23	16:54	5000	5100	102	90	110
Lead	1/31/23	16:54	5000	5030	101	90	110
Magnesium	1/31/23	16:54	5000	5120	102	90	110
Manganese	1/31/23	16:54	5000	5040	101	90	110
Nickel	1/31/23	16:54	5000	5100	102	90	110
Selenium	1/31/23	16:54	5000	5280	106	90	110
Silver	1/31/23	16:54	500.0	507.0	101	90	110
Thallium	1/31/23	16:54	5000	4900	98	90	110
Vanadium	1/31/23	16:54	5000	5280	106	90	110
Zinc	1/31/23	16:54	5000	5240	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1285717

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	1/31/23	17:00	500.0	548.0	110	90	110
Antimony	1/31/23	17:00	500.0	548.0	110	90	110
Arsenic	1/31/23	17:00	500.0	542.0	108	90	110
Barium	1/31/23	17:00	500.0	544.0	109	90	110
Beryllium	1/31/23	17:00	50.0	52.80	106	90	110
Cadmium	1/31/23	17:00	50.0	49.90	100	90	110
Calcium	1/31/23	17:00	500.0	525.0	105	90	110
Chromium	1/31/23	17:00	500.0	534.0	107	90	110
Cobalt	1/31/23	17:00	500.0	548.0	110	90	110
Copper	1/31/23	17:00	500.0	528.0	106	90	110
Iron	1/31/23	17:00	500.0	551.0	110	90	110
Lead	1/31/23	17:00	500.0	545.0	109	90	110
Magnesium	1/31/23	17:00	500.0	538.0	108	90	110
Manganese	1/31/23	17:00	500.0	537.0	107	90	110
Nickel	1/31/23	17:00	500.0	545.0	109	90	110
Selenium	1/31/23	17:00	500.0	544.0	109	90	110
Silver	1/31/23	17:00	50.0	53.80	108	90	110
Thallium	1/31/23	17:00	500.0	549.0	110	90	110
Vanadium	1/31/23	17:00	500.0	536.0	107	90	110
Zinc	1/31/23	17:00	500.0	548.0	110	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1285721

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	1/31/23	18:26	5000	4940	99	90	110
Antimony	1/31/23	18:26	5000	5190	104	90	110
Arsenic	1/31/23	18:26	5000	5260	105	90	110
Barium	1/31/23	18:26	5000	5100	102	90	110
Beryllium	1/31/23	18:26	500.0	517.0	103	90	110
Cadmium	1/31/23	18:26	500.0	477.0	95	90	110
Calcium	1/31/23	18:26	5000	5100	102	90	110
Chromium	1/31/23	18:26	5000	5220	104	90	110
Cobalt	1/31/23	18:26	5000	5200	104	90	110
Copper	1/31/23	18:26	5000	5040	101	90	110
Iron	1/31/23	18:26	5000	5290	106	90	110
Lead	1/31/23	18:26	5000	4860	97	90	110
Magnesium	1/31/23	18:26	5000	5130	103	90	110
Manganese	1/31/23	18:26	5000	5160	103	90	110
Nickel	1/31/23	18:26	5000	5040	101	90	110
Selenium	1/31/23	18:26	5000	5240	105	90	110
Silver	1/31/23	18:26	500.0	503.0	101	90	110
Thallium	1/31/23	18:26	5000	4810	96	90	110
Vanadium	1/31/23	18:26	5000	5240	105	90	110
Zinc	1/31/23	18:26	5000	5210	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1285722

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	1/31/23	18:33	500.0	540.0	108	90	110
Antimony	1/31/23	18:33	500.0	542.0	108	90	110
Arsenic	1/31/23	18:33	500.0	544.0	109	90	110
Barium	1/31/23	18:33	500.0	543.0	109	90	110
Beryllium	1/31/23	18:33	50.0	53.60	107	90	110
Cadmium	1/31/23	18:33	50.0	52.20	104	90	110
Calcium	1/31/23	18:33	500.0	530.0	106	90	110
Chromium	1/31/23	18:33	500.0	532.0	106	90	110
Cobalt	1/31/23	18:33	500.0	544.0	109	90	110
Copper	1/31/23	18:33	500.0	522.0	104	90	110
Iron	1/31/23	18:33	500.0	552.0	110	90	110
Lead	1/31/23	18:33	500.0	546.0	109	90	110
Magnesium	1/31/23	18:33	500.0	544.0	109	90	110
Manganese	1/31/23	18:33	500.0	546.0	109	90	110
Nickel	1/31/23	18:33	500.0	538.0	108	90	110
Selenium	1/31/23	18:33	500.0	541.0	108	90	110
Silver	1/31/23	18:33	50.0	53.80	108	90	110
Thallium	1/31/23	18:33	500.0	538.0	108	90	110
Vanadium	1/31/23	18:33	500.0	539.0	108	90	110
Zinc	1/31/23	18:33	500.0	546.0	109	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285974

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	02/02/2023 10:18	0.002	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285698

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	01/31/2023 14:56	208.0		120	250
Sodium	01/31/2023 14:56	-6.00	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-1

ICB

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912

Lab Sample ID: 1285712

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	01/31/2023 14:56	0.334	U	29	60
Antimony	01/31/2023 14:56	-1.90	U	4.4	10
Arsenic	01/31/2023 14:56	2.62	U	7.7	20
Barium	01/31/2023 14:56	-0.082	U	0.71	2.0
Beryllium	01/31/2023 14:56	0.016	U	0.95	4.0
Cadmium	01/31/2023 14:56	-0.058	U	0.41	1.0
Calcium	01/31/2023 14:56	-0.241	U	17	50
Chromium	01/31/2023 14:56	-0.217	U	1.1	2.5
Cobalt	01/31/2023 14:56	0.002	U	0.55	2.5
Copper	01/31/2023 14:56	-4.33	U	5.2	20
Iron	01/31/2023 14:56	1.44	U	11	40
Lead	01/31/2023 14:56	-0.296	U	1.4	2.0
Magnesium	01/31/2023 14:56	-0.007	U	10	20
Manganese	01/31/2023 14:56	-0.002	U	1.4	2.5
Nickel	01/31/2023 14:56	-0.09	U	1.5	2.5
Selenium	01/31/2023 14:56	1.58	U	10	20
Silver	01/31/2023 14:56	1.53		1.1	2.5
Thallium	01/31/2023 14:56	-0.683	U	6.8	20
Vanadium	01/31/2023 14:56	-0.047	U	1.3	2.5
Zinc	01/31/2023 14:56	-0.882	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285976

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	02/02/2023 10:59	0.001	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1285979

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	02/02/2023 11:44	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285704

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	01/31/2023 17:07	209.0		120	250
Sodium	01/31/2023 17:07	-7.00	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268911

Lab Sample ID: 1285709

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	01/31/2023 18:39	249.0		120	250
Sodium	01/31/2023 18:39	-9.00	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912

Lab Sample ID: 1285718

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	01/31/2023 17:07	0.31	U	29	60
Antimony	01/31/2023 17:07	-2.06	U	4.4	10
Arsenic	01/31/2023 17:07	2.74	U	7.7	20
Barium	01/31/2023 17:07	0.023	U	0.71	2.0
Beryllium	01/31/2023 17:07	0.014	U	0.95	4.0
Cadmium	01/31/2023 17:07	0.036	U	0.41	1.0
Calcium	01/31/2023 17:07	0.315	U	17	50
Chromium	01/31/2023 17:07	-0.068	U	1.1	2.5
Cobalt	01/31/2023 17:07	-0.096	U	0.55	2.5
Copper	01/31/2023 17:07	1.41	U	5.2	20
Iron	01/31/2023 17:07	0.627	U	11	40
Lead	01/31/2023 17:07	-0.426	U	1.4	2.0
Magnesium	01/31/2023 17:07	0.298	U	10	20
Manganese	01/31/2023 17:07	0.004	U	1.4	2.5
Nickel	01/31/2023 17:07	-0.23	U	1.5	2.5
Selenium	01/31/2023 17:07	-1.79	U	10	20
Silver	01/31/2023 17:07	1.51		1.1	2.5
Thallium	01/31/2023 17:07	1.42	U	6.8	20
Vanadium	01/31/2023 17:07	0.048	U	1.3	2.5
Zinc	01/31/2023 17:07	-0.761	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912

Lab Sample ID: 1285723

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	01/31/2023 18:39	-0.331	U	29	60
Antimony	01/31/2023 18:39	0.103	U	4.4	10
Arsenic	01/31/2023 18:39	0.758	U	7.7	20
Barium	01/31/2023 18:39	0.004	U	0.71	2.0
Beryllium	01/31/2023 18:39	-0.029	U	0.95	4.0
Cadmium	01/31/2023 18:39	-0.228	U	0.41	1.0
Calcium	01/31/2023 18:39	0.962	U	17	50
Chromium	01/31/2023 18:39	0.226	U	1.1	2.5
Cobalt	01/31/2023 18:39	0.048	U	0.55	2.5
Copper	01/31/2023 18:39	1.37	U	5.2	20
Iron	01/31/2023 18:39	0.49	U	11	40
Lead	01/31/2023 18:39	-0.106	U	1.4	2.0
Magnesium	01/31/2023 18:39	0.642	U	10	20
Manganese	01/31/2023 18:39	0.037	U	1.4	2.5
Nickel	01/31/2023 18:39	0.009	U	1.5	2.5
Selenium	01/31/2023 18:39	3.80	U	10	20
Silver	01/31/2023 18:39	0.913	U	1.1	2.5
Thallium	01/31/2023 18:39	1.01	U	6.8	20
Vanadium	01/31/2023 18:39	0.148	U	1.3	2.5
Zinc	01/31/2023 18:39	-0.706	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268967

Lab Sample ID: 1284467

Analytical Prep Batch #: 128485

Preparation Date/Time: 01/31/2023 14:30

ICAL Calibration #: 02022023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Mercury	02/02/2023 10:28	0.00200	U	0.020	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-3

MB

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1284370

Analytical Prep Batch #: 128482 Preparation Date/Time: 01/30/2023 10:30

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	01/31/2023 16:46	4.33	U	29	60	
Total Antimony	01/31/2023 16:46	-2.36	U	4.4	10	
Total Arsenic	01/31/2023 16:46	1.67	U	7.7	20	
Total Barium	01/31/2023 16:46	0.504	U	0.71	2.0	
Total Beryllium	01/31/2023 16:46	-0.385	U	0.95	4.0	
Total Cadmium	01/31/2023 16:46	-0.336	U	0.41	1.0	
Total Calcium	01/31/2023 16:46	5.20	U	19	50	
Total Chromium	01/31/2023 16:46	0.106	U	1.1	2.5	
Total Cobalt	01/31/2023 16:46	-0.351	U	0.55	2.5	
Total Copper	01/31/2023 16:46	-3.53	U	5.2	20	
Total Iron	01/31/2023 16:46	4.07	U	11	40	
Total Lead	01/31/2023 16:46	-1.59	U	1.4	2.0	
Total Magnesium	01/31/2023 16:46	1.25	U	10	20	
Total Manganese	01/31/2023 16:46	0.00800	U	1.4	2.5	
Total Nickel	01/31/2023 16:46	-0.140	U	1.5	2.5	
Total Potassium	01/31/2023 16:46	286.0		120	250	FAIL
Total Selenium	01/31/2023 16:46	0.212	U	10	20	
Total Silver	01/31/2023 16:46	1.87		1.1	2.5	FAIL
Total Sodium	01/31/2023 16:46	39.00	U	200	350	
Total Thallium	01/31/2023 16:46	-0.327	U	6.8	20	
Total Vanadium	01/31/2023 16:46	-0.0580	U	1.3	2.5	
Total Zinc	01/31/2023 16:46	-0.455	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1284370

Analytical Prep Batch #: 128482 Preparation Date/Time: 01/30/2023 10:30

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	01/31/2023 16:46	4.33	U	29	60	
Total Antimony	01/31/2023 16:46	-2.36	U	4.4	10	
Total Arsenic	01/31/2023 16:46	1.67	U	7.7	20	
Total Barium	01/31/2023 16:46	0.504	U	0.71	2.0	
Total Beryllium	01/31/2023 16:46	-0.385	U	0.95	4.0	
Total Cadmium	01/31/2023 16:46	-0.336	U	0.41	1.0	
Total Calcium	01/31/2023 16:46	5.20	U	19	50	
Total Chromium	01/31/2023 16:46	0.106	U	1.1	2.5	
Total Cobalt	01/31/2023 16:46	-0.351	U	0.55	2.5	
Total Copper	01/31/2023 16:46	-3.53	U	5.2	20	
Total Iron	01/31/2023 16:46	4.07	U	11	40	
Total Lead	01/31/2023 16:46	-1.59	U	1.4	2.0	
Total Magnesium	01/31/2023 16:46	1.25	U	10	20	
Total Manganese	01/31/2023 16:46	0.00800	U	1.4	2.5	
Total Nickel	01/31/2023 16:46	-0.140	U	1.5	2.5	
Total Potassium	01/31/2023 16:46	286.0		120	250	FAIL
Total Selenium	01/31/2023 16:46	0.212	U	10	20	
Total Silver	01/31/2023 16:46	1.87		1.1	2.5	FAIL
Total Sodium	01/31/2023 16:46	39.00	U	200	350	
Total Thallium	01/31/2023 16:46	-0.327	U	6.8	20	
Total Vanadium	01/31/2023 16:46	-0.0580	U	1.3	2.5	
Total Zinc	01/31/2023 16:46	-0.455	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268912 Lab Sample ID: 1284370

Analytical Prep Batch #: 128482 Preparation Date/Time: 01/30/2023 10:30

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	01/31/2023 16:46	4.33	U	29	60	
Total Antimony	01/31/2023 16:46	-2.36	U	4.4	10	
Total Arsenic	01/31/2023 16:46	1.67	U	7.7	20	
Total Barium	01/31/2023 16:46	0.504	U	0.71	2.0	
Total Beryllium	01/31/2023 16:46	-0.385	U	0.95	4.0	
Total Cadmium	01/31/2023 16:46	-0.336	U	0.41	1.0	
Total Calcium	01/31/2023 16:46	5.20	U	19	50	
Total Chromium	01/31/2023 16:46	0.106	U	1.1	2.5	
Total Cobalt	01/31/2023 16:46	-0.351	U	0.55	2.5	
Total Copper	01/31/2023 16:46	-3.53	U	5.2	20	
Total Iron	01/31/2023 16:46	4.07	U	11	40	
Total Lead	01/31/2023 16:46	-1.59	U	1.4	2.0	
Total Magnesium	01/31/2023 16:46	1.25	U	10	20	
Total Manganese	01/31/2023 16:46	0.00800	U	1.4	2.5	
Total Nickel	01/31/2023 16:46	-0.140	U	1.5	2.5	
Total Potassium	01/31/2023 16:46	286.0		120	250	FAIL
Total Selenium	01/31/2023 16:46	0.212	U	10	20	
Total Silver	01/31/2023 16:46	1.87		1.1	2.5	FAIL
Total Sodium	01/31/2023 16:46	39.00	U	200	350	
Total Thallium	01/31/2023 16:46	-0.327	U	6.8	20	
Total Vanadium	01/31/2023 16:46	-0.0580	U	1.3	2.5	
Total Zinc	01/31/2023 16:46	-0.455	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 175065
ICS Source: SPEX

Analytical Run #: 268911
Lab Sample ID: 1285699
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	01/31/2023 15:18	500000	528000	106	80	120
Calcium	01/31/2023 15:18	500000	518000	104	80	120
Iron	01/31/2023 15:18	500000	497000	99	80	120
Magnesium	01/31/2023 15:18	500000	541000	108	80	120
Potassium	01/31/2023 15:18	0	189.0	0	-500	500
Sodium	01/31/2023 15:18	0	196.0	0	-500	500

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 175065
ICS Source: SPEX

Analytical Run #: 268912
Lab Sample ID: 1285713
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	01/31/2023 15:18	500000	528000	106	80	120
Antimony	01/31/2023 15:18	0	-3.25	0	-10	10
Arsenic	01/31/2023 15:18	0	-0.123	0	-20	20
Barium	01/31/2023 15:18	0	-1.20	0	-2.0	2.0
Beryllium	01/31/2023 15:18	0	0.041	0	-4.0	4.0
Cadmium	01/31/2023 15:18	0	-0.185	0	-1.0	1.0
Calcium	01/31/2023 15:18	500000	518000	104	80	120
Chromium	01/31/2023 15:18	0	-0.318	0	-13	13
Cobalt	01/31/2023 15:18	0	0.081	0	-2.5	2.5
Copper	01/31/2023 15:18	0	-0.229	0	-20	20
Iron	01/31/2023 15:18	500000	497000	99	80	120
Lead	01/31/2023 15:18	0	0	0	-2.0	2.0
Magnesium	01/31/2023 15:18	500000	541000	108	80	120
Manganese	01/31/2023 15:18	0	1.07	0	-7.3	7.3
Nickel	01/31/2023 15:18	0	0.096	0	-2.5	2.5
Selenium	01/31/2023 15:18	0	10.40	0	-20	20
Silver	01/31/2023 15:18	0	-0.706	0	-2.5	2.5
Thallium	01/31/2023 15:18	0	-0.625	0	-20	20
Vanadium	01/31/2023 15:18	10000	10900	0	8000	12000
Zinc	01/31/2023 15:18	0	3.16	0	-10	10

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 175065
ICS Source: SPEX, Ultra

Analytical Run #: 268911
Lab Sample ID: 1285700
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	01/31/2023 15:26	500000	523000	105	80	120
Calcium	01/31/2023 15:26	500000	512000	102	80	120
Iron	01/31/2023 15:26	500000	492000	98	80	120
Magnesium	01/31/2023 15:26	500000	534000	107	80	120
Potassium	01/31/2023 15:26	100000	109000	109	80	120
Sodium	01/31/2023 15:26	100000	114000	114	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 175065
ICS Source: SPEX, Ultra

Analytical Run #: 268911
Lab Sample ID: 1285700
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	01/31/2023 15:26	500000	523000	105	80	120
Calcium	01/31/2023 15:26	500000	512000	102	80	120
Iron	01/31/2023 15:26	500000	492000	98	80	120
Magnesium	01/31/2023 15:26	500000	534000	107	80	120
Potassium	01/31/2023 15:26	100000	109000	109	80	120
Sodium	01/31/2023 15:26	100000	114000	114	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 175065
ICS Source: SPEX, Ultra

Analytical Run #: 268912
Lab Sample ID: 1285714
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	01/31/2023 15:26	500000	523000	105	80	120
Antimony	01/31/2023 15:26	500.0	536.0	107	80	120
Arsenic	01/31/2023 15:26	500.0	567.0	113	80	120
Barium	01/31/2023 15:26	500.0	543.0	109	80	120
Beryllium	01/31/2023 15:26	500.0	567.0	113	80	120
Cadmium	01/31/2023 15:26	500.0	573.0	115	80	120
Calcium	01/31/2023 15:26	500000	512000	102	80	120
Chromium	01/31/2023 15:26	500.0	530.0	106	80	120
Cobalt	01/31/2023 15:26	500.0	516.0	103	80	120
Copper	01/31/2023 15:26	500.0	554.0	111	80	120
Iron	01/31/2023 15:26	500000	492000	98	80	120
Lead	01/31/2023 15:26	500.0	487.0	97	80	120
Magnesium	01/31/2023 15:26	500000	534000	107	80	120
Manganese	01/31/2023 15:26	500.0	535.0	107	80	120
Nickel	01/31/2023 15:26	500.0	507.0	101	80	120
Selenium	01/31/2023 15:26	500.0	521.0	104	80	120
Silver	01/31/2023 15:26	500.0	519.0	104	80	120
Thallium	01/31/2023 15:26	500.0	598.0	120	80	120
Vanadium	01/31/2023 15:26	500.0	552.0	110	80	120
Zinc	01/31/2023 15:26	500.0	562.0	112	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1284368	Parent Sample No.:	1284325
Analytical Prep Batch #:	128482	Analytical Preparation Date/Time:	01/30/2023 10:30
Analytical Run #:	268911	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/31/2023	Analysis Time: --------	17:37

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	97400		6060		100000	91		P
Total Sodium	87-115	126000		20400		100000	106		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1284368	Parent Sample No.:	1284325
Analytical Prep Batch #:	128482	Analytical Preparation Date/Time:	01/30/2023 10:30
Analytical Run #:	268912	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 01/31/2023 Analysis Time: -------- 17:37

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	24800		17400		800	925		P	*FAIL*
Total Antimony	88-113	140		BDL	U	200	70		P	*FAIL*
Total Arsenic	87-113	796		8.8	J	800	98		P	
Total Barium	88-113	1050		198		800	106		P	
Total Beryllium	89-112	22.0		BDL	U	20.0	110		P	
Total Cadmium	88-113	18.1		BDL	U	20.0	90		P	
Total Calcium	87-113	333000		138000		200000	98		P	
Total Chromium	90-113	107		26.1		80.0	101		P	
Total Cobalt	89-114	202		12.3		200	95		P	
Total Copper	86-114	135		32.0	J	100	103		P	
Total Iron	87-115	25000		23100		400	475		P	*FAIL*
Total Lead	86-113	208		29.5		200	89		P	
Total Magnesium	85-113	181000		80200		100000	101		P	
Total Manganese	90-114	894		826		200	34		P	*FAIL*
Total Nickel	88-113	208		21.7		200	93		P	
Total Selenium	83-114	728		BDL	U	800	91		P	
Total Silver	84-115	20.1		BDL	U	20.0	100		P	
Total Thallium	85-114	601		8.9	J	800	74		P	*FAIL*
Total Vanadium	90-111	230		27.5		200	101		P	
Total Zinc	87-115	298		82.2		200	108		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1285720	Parent Sample No.:	1284325
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268912	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/31/2023	Analysis Time: --------	17:50

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Aluminum	80-120	20800		17400		4000	85		P	
Antimony	80-120	936		BDL	U	1000	94		P	
Beryllium	80-120	99.7		BDL	U	100	100		P	
Iron	80-120	24200		23100		2000	55		P	*FAIL*
Manganese	80-120	1480		826		1000	65		P	*FAIL*
Thallium	80-120	3090		8.9	J	4000	77		P	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1286171	Parent Sample No.:	1284325
Analytical Prep Batch #:		Analytical Preparation Date/Time:	
Analytical Run #:	268911	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/31/2023	Analysis Time: --------	17:50

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sodium	80-120	232000		20400		200000	106		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1286172	Parent Sample No.:	1284325
Analytical Prep Batch #:		Analytical Preparation Date/Time:	
Analytical Run #:	268911	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/31/2023	Analysis Time: --------	17:50

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	80-120	193000		6060		200000	93		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1284369	Parent Sample No.:	1284368
Analytical Prep Batch #:	128482	Analytical Preparation Date/Time:	01/30/2023 10:30
Analytical Run #:	268911	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 01/31/2023 Analysis Time: -------- 17:43

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	103000		6060		100000	97		P
Total Sodium	87-115	132000		20400		100000	112		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1284369	Parent Sample No.:	1284368
Analytical Prep Batch #:	128482	Analytical Preparation Date/Time:	01/30/2023 10:30
Analytical Run #:	268912	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 01/31/2023 Analysis Time: -------- 17:43

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	24800		17400		800	925		P	*FAIL*
Total Antimony	88-113	156		BDL	U	200	78		P	*FAIL*
Total Arsenic	87-113	873		8.8	J	800	108		P	
Total Barium	88-113	1100		198		800	113		P	
Total Beryllium	89-112	22.9		BDL	U	20.0	114		P	*FAIL*
Total Cadmium	88-113	20.0		BDL	U	20.0	100		P	
Total Calcium	87-113	338000		138000		200000	100		P	
Total Chromium	90-113	115		26.1		80.0	111		P	
Total Cobalt	89-114	218		12.3		200	103		P	
Total Copper	86-114	137		32.0	J	100	105		P	
Total Iron	87-115	24500		23100		400	350		P	*FAIL*
Total Lead	86-113	224		29.5		200	97		P	
Total Magnesium	85-113	183000		80200		100000	103		P	
Total Manganese	90-114	875		826		200	24		P	*FAIL*
Total Nickel	88-113	224		21.7		200	101		P	
Total Selenium	83-114	807		BDL	U	800	101		P	
Total Silver	84-115	21.3		BDL	U	20.0	106		P	
Total Thallium	85-114	736		8.9	J	800	91		P	
Total Vanadium	90-111	249		27.5		200	111		P	
Total Zinc	87-115	313		82.2		200	115		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 128482
Analytical Preparation Date/Time: 01/30/2023 10:30
Analytical Run #: 268911
ICAL Calibration #:
Sample #: 1284367
Parent Sample #: 1284325

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	01/31/2023	17:29	20	6060		5270		14		P
Total Sodium	01/31/2023	17:29	20	20400		19300		6		P

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 128482
Analytical Preparation Date/Time: 01/30/2023 10:30
Analytical Run #: 268912
ICAL Calibration #:
Sample #: 1284367
Parent Sample #: 1284325

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Total Aluminum	01/31/2023	17:29	20	17400		16700		4		P	
Total Antimony	01/31/2023	17:29	20	4.4	U	4.4	U	0		P	
Total Arsenic	01/31/2023	17:29	20	8.8	J	7.7	U	200		P	*FAIL*
Total Barium	01/31/2023	17:29	20	198		195		2		P	
Total Beryllium	01/31/2023	17:29	20	0.95	U	1.1	J	200		P	*FAIL*
Total Cadmium	01/31/2023	17:29	20	0.41	U	0.41	U	0		P	
Total Calcium	01/31/2023	17:29	20	138000		140000		1		P	
Total Chromium	01/31/2023	17:29	20	26.1		26.3		1		P	
Total Cobalt	01/31/2023	17:29	20	12.3		12.5		2		P	
Total Copper	01/31/2023	17:29	20	32.0	J	33.5	J	5		P	
Total Iron	01/31/2023	17:29	20	23100		22900		1		P	
Total Lead	01/31/2023	17:29	20	29.5		30.1		2		P	
Total Magnesium	01/31/2023	17:29	20	80200		81900		2		P	
Total Manganese	01/31/2023	17:29	20	826		825		0		P	
Total Nickel	01/31/2023	17:29	20	21.7		21.5		1		P	
Total Selenium	01/31/2023	17:29	20	10	U	10	U	0		P	
Total Silver	01/31/2023	17:29	20	1.1	U	1.1	U	0		P	
Total Thallium	01/31/2023	17:29	20	8.9	J	7.6	J	16		P	
Total Vanadium	01/31/2023	17:29	20	27.5		26.4		4		P	
Total Zinc	01/31/2023	17:29	20	82.2		81.8		0		P	

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 128482
Analytical Preparation Date/Time: 01/30/2023 10:30
Analytical Run #: 268911
ICAL Calibration #:
Sample #: 1284369
Parent Sample #: 1284368

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	01/31/2023 17:43	20	97400		103000		6		P
Total Sodium	01/31/2023 17:43	20	126000		132000		5		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 128482
Analytical Preparation Date/Time: 01/30/2023 10:30
Analytical Run #: 268912
ICAL Calibration #:
Sample #: 1284369
Parent Sample #: 1284368

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Aluminum	01/31/2023	17:43	20	24800		24800		0		P
Total Antimony	01/31/2023	17:43	20	140		156		11		P
Total Arsenic	01/31/2023	17:43	20	796		873		9		P
Total Barium	01/31/2023	17:43	20	1050		1100		5		P
Total Beryllium	01/31/2023	17:43	20	22.0		22.9		4		P
Total Cadmium	01/31/2023	17:43	20	18.1		20.0		10		P
Total Calcium	01/31/2023	17:43	20	333000		338000		1		P
Total Chromium	01/31/2023	17:43	20	107		115		7		P
Total Cobalt	01/31/2023	17:43	20	202		218		8		P
Total Copper	01/31/2023	17:43	20	135		137		1		P
Total Iron	01/31/2023	17:43	20	25000		24500		2		P
Total Lead	01/31/2023	17:43	20	208		224		7		P
Total Magnesium	01/31/2023	17:43	20	181000		183000		1		P
Total Manganese	01/31/2023	17:43	20	894		875		2		P
Total Nickel	01/31/2023	17:43	20	208		224		7		P
Total Selenium	01/31/2023	17:43	20	728		807		10		P
Total Silver	01/31/2023	17:43	20	20.1		21.3		6		P
Total Thallium	01/31/2023	17:43	20	601		736		20		P
Total Vanadium	01/31/2023	17:43	20	230		249		8		P
Total Zinc	01/31/2023	17:43	20	298		313		5		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 175065

Concentration Units: ug/L

Analytical Run #: 268967

Sample No.:#: 1284468

Analytical Prep Batch #: 128485

Preparation Date/Time: 01/31/2023 14:30

ICAL Calibration #: 02022023

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Mercury	02/02/2023 10:21	82-119	1.90		2.00	95		CV

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 175065

Concentration Units: ug/L

Analytical Run #: 268912 Sample No.:#: 1284371

Analytical Prep Batch #: 128482 Preparation Date/Time: 01/30/2023 10:30

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Aluminum	01/31/2023 16:39	86-115	833.0		800.0	104		P
Total Antimony	01/31/2023 16:39	88-113	217.0		200.0	108		P
Total Arsenic	01/31/2023 16:39	87-113	898.0		800.0	112		P
Total Barium	01/31/2023 16:39	88-113	821.0		800.0	103		P
Total Beryllium	01/31/2023 16:39	89-112	21.00		20.0	105		P
Total Cadmium	01/31/2023 16:39	88-113	21.50		20.0	108		P
Total Calcium	01/31/2023 16:39	87-113	198000		200000	99		P
Total Chromium	01/31/2023 16:39	90-113	86.10		80.0	108		P
Total Cobalt	01/31/2023 16:39	89-114	211.0		200.0	106		P
Total Copper	01/31/2023 16:39	86-114	105.0		100.0	105		P
Total Iron	01/31/2023 16:39	87-115	416.0		400.0	104		P
Total Lead	01/31/2023 16:39	86-113	202.0		200.0	101		P
Total Magnesium	01/31/2023 16:39	85-113	101000		100000	101		P
Total Manganese	01/31/2023 16:39	90-114	208.0		200.0	104		P
Total Nickel	01/31/2023 16:39	88-113	208.0		200.0	104		P
Total Potassium	01/31/2023 16:39	86-114	95300		100000	95		P
Total Selenium	01/31/2023 16:39	83-114	854.0		800.0	107		P
Total Silver	01/31/2023 16:39	84-115	21.80		20.0	109		P
Total Sodium	01/31/2023 16:39	87-115	106000		100000	106		P
Total Thallium	01/31/2023 16:39	85-114	780.0		800.0	98		P
Total Vanadium	01/31/2023 16:39	90-111	213.0		200.0	106		P
Total Zinc	01/31/2023 16:39	87-115	229.0		200.0	114		P

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID SDG No.: 175065

Concentration Units: ug/L

Sample No.: 1285719 Parent Sample No.: 1284325

LIMS Run #: 268912 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Aluminum	01/31/2023	17:22	17400		25600		47		P	*FAIL*
Antimony	01/31/2023	17:22	BDL	U	22	U	0		P	*INVALID*
Beryllium	01/31/2023	17:22	BDL	U	4.75	U	0		P	*INVALID*
Iron	01/31/2023	17:22	23100		34900		51		P	*FAIL*
Manganese	01/31/2023	17:22	826		995		20		P	*FAIL*
Thallium	01/31/2023	17:22	8.85	U	34	U	100		P	*INVALID*

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Fe	0.000006	0.000000	No
			Ce	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000906	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001713	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000113	0.000000	No
Ba 233.527 {445}	☒	3	Fe	-0.000038	0.000000	No
			V	0.000180	0.000000	No
			Al	0.000000	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000029	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000016	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	2	Fe	0.000090	0.000000	No
			Al	0.000000	0.000000	No
Cd 228.802 {147}	☒	None				
Co 228.616 {447}	☒	5	Fe	0.000009	0.000000	No
			Ti	0.003000	0.000000	No
			Ba	-0.001300	0.000000	No
			Ni	0.000040	0.000000	No
			Al	0.000001	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000188	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000014	0.000000	No
Cu 224.700 {450}	☒	5	Fe	0.000274	0.000000	No
			Mo	0.001320	0.000000	No
			Ni	-0.006000	0.000000	No
			Pb	0.003030	0.000000	No
			Al	0.000000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000136	0.000000	No
Cu 327.396 {103}	☒	1	Fe	0.000069	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000086	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Mg	0.001339	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000011	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000020	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000036	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	3	Fe	0.000012	0.000000	No
			Co	0.000000	0.000000	No
			Mo	0.000000	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001241	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	3	Si	0.000000	0.000000	No
			Al	0.000001	0.000000	No
			Fe	0.000018	0.000000	No
Pb 220.353 {153}	☒	1	Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	1	Fe	0.000009	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000069	0.000000	No
			V	0.002070	0.000000	No
			Pb	-0.001040	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000360	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001308	0.000000	No
Tl 190.856 {476}	☒	5	Fe	0.000024	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000050	0.000000	No
			Cr	0.000251	0.000000	No
			V	-0.003800	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000048	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000073	0.000000	No
V 292.402 {115}	☒	3	Fe	0.000020	0.000000	No
			Cr	-0.000400	0.000000	No
			Al	0.000000	0.000000	No
Zn 202.548 {466}	☒	1	Fe	-0.000239	0.000000	No
Zn 206.200 {463}	☒	1	Fe	-0.000003	0.000000	No
Zn 213.856 {457}	☒	2	Fe	0.000167	0.000000	No
			Cu	0.007413	0.000000	No
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	2	Fe	-0.000105	0.000000	No
			Mo	0.005400	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000036	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000052	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000014	0.000000	No
Sr 421.552 { 80}	☒	1	Fe	0.000014	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
B 249.678 {135}	☒	2	Fe	0.000001	0.000000	No
			Co	0.003970	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000357	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000216	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
S 182.034 {485}	☒	1	Mg	0.000100	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

ICP ID Number: TA SDG No.: 175065

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

CT LABORATORIES
delivering more than data from your environmental analyses

13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 3010A

SDG No.: 175065

Preparation Batch #: 128482

Preparation Date/Time: 01/30/2023 / 10:30

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1284325	Normal Sample	49IDW	GROUND WATER	
1284367	Lab Duplicate	49IDW	GROUND WATER	
1284368	Matrix Spike	49IDW	GROUND WATER	
1284369	Matrix Spike Duplicate	49IDW	GROUND WATER	
1284370	Method Blank		LIQUID	
1284371	Lab Control Spike		LIQUID	

CT LABORATORIES
delivering more than data from your environmental analyses

13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 7470A

SDG No.: 175065

Preparation Batch #: 128485

Preparation Date/Time: 01/31/2023 / 14:30

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1283774	Normal Sample	54 IDW	GROUND WATER	
1284325	Normal Sample	49IDW	GROUND WATER	
1284467	Method Blank		LIQUID	
1284468	Lab Control Spike		LIQUID	
1284469	Lab Duplicate	49IDW	GROUND WATER	
1284470	Matrix Spike	49IDW	GROUND WATER	
1284471	Matrix Spike Duplicate	49IDW	GROUND WATER	

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 175065

Instrument ID Number: CETAC

Method Number: CV

Start & End Date: 02/02/2023 to 02/02/2023

Analytical Run #: 268967

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1285973	ICV	1	2/02 10:12																X													
1285974	ICB	1	2/02 10:18																X													
1284468	LCSW	1	2/02 10:21																X													
1284467	MBW	1	2/02 10:28																X													
1283774	Initial	1	2/02 10:37																X													
1284325	Initial	1	2/02 10:40																X													
1284469	DUP	1	2/02 10:44																X													
1285975	CCV	1	2/02 10:53																X													
1285976	CCB	1	2/02 10:59																X													
1284470	MSW	1	2/02 11:03																X													
1284471	MSDW	1	2/02 11:06																X													
1285977	CCV	1	2/02 11:34																X													
1285978	CCV	1	2/02 11:37																X													
1285979	CCB	1	2/02 11:44																X													

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 175065

Instrument ID Number: TJA

Method Number: P

Start & End Date: 01/31/2023 to 01/31/2023

Analytical Run #: 268911

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1285696	ICV	1	1/31 14:42																				X				X					
1285697	ICVLL	1	1/31 14:49																				X				X					
1285698	ICB	1	1/31 14:56																				X				X					
1285699	ICSA	1	1/31 15:18	X							X				X		X						X				X					
1285700	ICSAB	1	1/31 15:26	X							X				X		X						X				X					
1285702	CCV1	1	1/31 16:54																				X				X					
1285703	CCV2	1	1/31 17:00																				X				X					
1285704	CCB	1	1/31 17:07																				X				X					
1284325	Initial	1	1/31 17:14																				X				X					
1286169	L	5	1/31 17:22																								X					
1286170	L	5	1/31 17:22																				X									
1284367	DUP	1	1/31 17:29																				X				X					
1284368	MSW	1	1/31 17:37																				X				X					
1284369	MSDW	1	1/31 17:43																				X				X					
1286171	PDSW	1	1/31 17:50																								X					
1286172	PDSW	1	1/31 17:50																				X									
1285707	CCV1	1	1/31 18:26																				X				X					
1285708	CCV2	1	1/31 18:33																				X				X					
1285709	CCB	1	1/31 18:39																				X				X					

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 175065

Instrument ID Number: TJA

Method Number: P

Start & End Date: 01/31/2023 to 01/31/2023

Analytical Run #: 268912

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1285710	ICV	1	1/31 14:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285711	ICVLL	1	1/31 14:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X					X			X	X
1285712	ICB	1	1/31 14:56	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285713	ICSA	1	1/31 15:18	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285714	ICSAB	1	1/31 15:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285715	ICVLL	1	1/31 15:40																							X							
1284371	LCSW	1	1/31 16:39	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1284370	MBW	1	1/31 16:46	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1285716	CCV1	1	1/31 16:54	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285717	CCV2	1	1/31 17:00	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285718	CCB	1	1/31 17:07	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1284325	Initial	1	1/31 17:14	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285719	L	5	1/31 17:22	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1284367	DUP	1	1/31 17:29	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1284368	MSW	1	1/31 17:37	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1284369	MSDW	1	1/31 17:43	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285720	PDSW	1	1/31 17:50	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285721	CCV1	1	1/31 18:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285722	CCV2	1	1/31 18:33	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1285723	CCB	1	1/31 18:39	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

METALS
RAW DATA
DOCUMENTS

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Ag 328.068 {103}	02/01/2023 12:39:31	01/31/2023 13:35:51	Linear	1/Var	-0.000035	0.000007	0.000000	1.000000	0.998953	0.000015	0.547815	1.826049
	Ag 338.289 {100}	02/01/2023 12:39:31	01/31/2023 14:28:00	Linear	1/Conc	0.000032	0.000007	0.000000	1.000000	0.999445	0.000001	0.768529	2.561764
	Al 167.079 {501}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	0.000013	0.000008	0.000000	1.000000	0.999758	0.000001	0.614195	2.047315
	Al 309.271 {109}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Var	0.000262	0.000002	0.000000	1.000000	0.948691	0.001825	17.219889	57.399631
	Al 396.152 { 85}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Conc	0.000132	0.000003	0.000000	1.000000	0.999785	0.000094	19.755045	65.850150
	As 193.759 {474}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	0.000025	0.000003	0.000000	1.000000	0.999744	0.000000	4.894186	16.313952
	As 197.262 {471}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	-0.000019	0.000001	0.000000	1.000000	0.999879	0.000000	6.981592	23.271974
	Ba 233.527 {145}	02/01/2023 12:39:31	01/31/2023 14:28:00	Linear	1/Conc	0.000004	0.000001	0.000000	1.000000	0.999846	0.000000	8.221867	27.406222
	Ba 233.527 {445}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	-0.000007	0.000042	0.000000	1.000000	0.999940	0.000001	0.273554	0.911847
	Ba 455.403 { 74}	02/01/2023 12:39:31	01/31/2023 14:28:00	Linear	None	-0.000845	0.000105	0.000000	1.000000	0.999895	0.010861	0.455479	1.518263
	Ba 493.409 { 68}	02/01/2023 12:39:31	01/31/2023 14:28:00	Linear	1/Var	0.049725	0.000070	0.000000	1.000000	0.999851	0.000628	2.116598	7.055327
	Be 234.861 {144}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	-0.000016	0.000024	0.000000	1.000000	0.999514	0.000001	0.396312	1.321039
	Be 313.042 {108}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	0.000657	0.000083	0.000000	1.000000	0.999922	0.000001	0.051124	0.170415
	Be 313.107 {108}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	0.000095	0.000067	0.000000	1.000000	0.999782	0.000001	0.458096	1.526987
	Ca 184.006 {483}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	1/Conc	-0.000219	0.000006	0.000000	1.000000	0.999361	0.000102	1.714683	5.715611
	Ca 315.887 {107}	02/01/2023 12:39:31	01/31/2023 14:20:29	Curvili	1/Var	0.000051	0.000002	0.000000	1.000000	0.999901	0.000103	8.460241	28.200804
	Ca 317.933 {106}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Conc	0.002868	0.000005	0.000000	1.000000	0.999885	0.000120	4.026882	13.422940
	Ca 393.366 { 86}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	0.000512	0.000866	0.000000	1.000000	0.999803	0.000184	0.065208	0.217359
	Ca 396.847 { 85}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	0.000070	0.000186	0.000000	1.000000	0.999971	0.000067	0.204462	0.681541
	Cd 226.502 {449}	02/01/2023 12:39:31	01/31/2023 13:42:21	Linear	1/Conc	0.000025	0.000078	0.000000	1.000000	0.999944	0.000001	0.239105	0.797017
	Cd 228.802 {448}	02/01/2023 12:39:31	01/31/2023 13:42:22	Linear	1/Conc	0.000000	0.000010	0.000000	1.000000	0.999938	0.000000	1.071079	3.570265
	Co 228.616 {447}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	-0.000044	0.000073	0.000000	1.000000	0.999973	0.000001	0.276664	0.922213
	Co 238.892 {141}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	0.000004	0.000005	0.000000	1.000000	0.999974	0.000002	0.601684	2.005613
	Cr 205.560 {464}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Conc	-0.000027	0.000057	0.000000	1.000000	0.999919	0.000009	0.247327	0.824424
	Cr 267.716 {126}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	-0.000018	0.000011	0.000000	1.000000	0.999982	0.000001	0.349249	1.164164
	Cu 223.008 {451}	02/01/2023 12:39:31	01/31/2023 13:49:10	Linear	1/Conc	0.000023	0.000017	0.000000	1.000000	0.999963	0.000001	1.165409	3.884698
	Cu 324.754 {104}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Var	0.000052	0.000004	0.000000	1.000000	0.999620	0.000147	7.730756	25.769187
	Cu 327.396 {103}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Conc	-0.000114	0.000005	0.000000	1.000000	0.999911	0.000002	6.724382	22.414606
	Fe 234.349 {144}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	1/Var	0.000015	0.000001	0.000000	1.000000	0.999962	0.000003	0.874805	2.916015
	Fe 239.562 {140}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Var	0.000062	0.000002	0.000000	1.000000	0.999559	0.000185	6.790417	22.634722
	Fe 259.940 {129}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Var	0.000046	0.000006	0.000000	1.000000	0.999699	0.000127	3.023137	10.077123
	Mg 202.582 {466}	02/01/2023 12:39:31	01/31/2023 14:20:29	Curvili	1/Var	-0.000005	0.000005	-0.000000	1.000000	0.993874	0.000489	2.854675	9.515582
	Mg 279.079 {121}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Var	-0.000005	0.000000	0.000000	1.000000	0.999857	0.000030	43.519396	145.06465
	Mg 280.270 {120}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000061	0.000141	0.000000	1.000000	0.999994	0.000009	0.015417	0.051390
	Mn 257.610 {131}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	-0.000004	0.000046	0.000000	1.000000	0.999942	0.000001	0.044882	0.149607
	Mn 259.373 {130}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Conc	-0.000001	0.000035	0.000000	1.000000	0.999991	0.000068	0.580970	1.936567
	Mo 202.030 {466}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000013	0.000032	0.000000	1.000000	0.999952	0.000001	0.409395	1.364652
	Mo 204.598 {464}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	-0.000004	0.000016	0.000000	1.000000	0.999989	0.000001	0.861163	2.870544
	Ni 221.647 {452}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000015	0.000038	0.000000	1.000000	0.999954	0.000017	0.594801	1.982669
	Ni 231.604 {445}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	-0.000036	0.000067	0.000000	1.000000	0.999926	0.000001	0.380416	1.268054
	Pb 216.999 {455}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Conc	-0.000004	0.000002	0.000000	1.000000	0.999871	0.000002	8.645143	28.817142
	Pb 220.353 {153}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999978	0.000001	2.083974	6.946580
	Pb 220.353 {453}	02/01/2023 12:39:31	01/31/2023 13:42:22	Linear	1/Conc	0.000033	0.000010	0.000000	1.000000	0.999980	0.000000	2.289979	7.633263
	Sb 206.833 {463}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Var	-0.000002	0.000005	0.000000	1.000000	0.999912	0.000020	2.665159	8.883863

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {145}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0

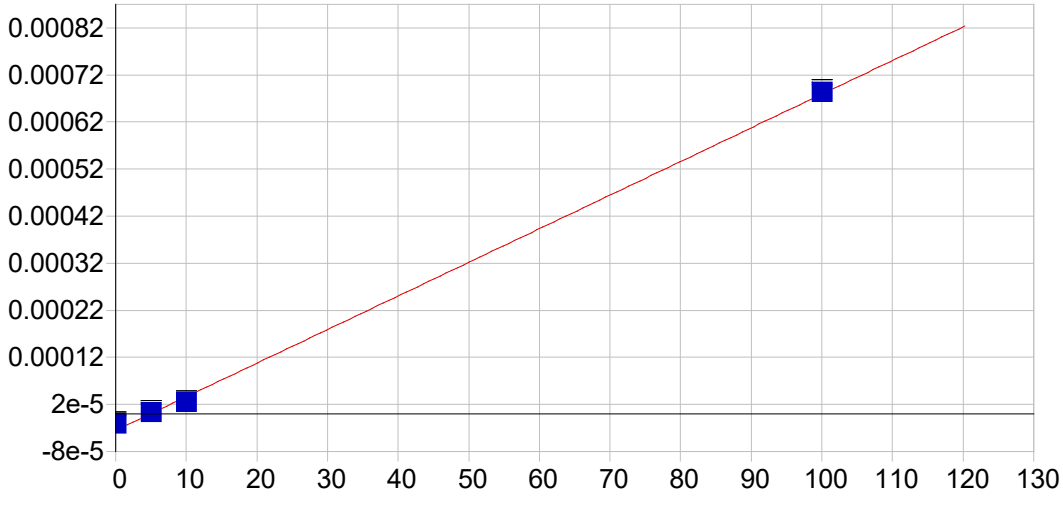
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Sb 217.581 {455}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000045	0.000005	0.000000	1.000000	0.998125	0.000001	2.998344	9.994479
	Se 196.090 {472}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	-0.000014	0.000003	0.000000	1.000000	0.999897	0.000000	4.864244	16.214146
	Se 206.279 {463}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000012	0.000001	0.000000	1.000000	0.999904	0.000001	20.222843	67.409477
	Tl 190.856 {476}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	-0.000008	0.000008	0.000000	1.000000	0.999967	0.000000	1.815488	6.051627
	Tl 190.856 {477}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000010	0.000002	0.000000	1.000000	0.999782	0.000001	3.220942	10.736474
	V 290.882 {116}	02/01/2023 12:39:31	01/31/2023 13:49:11	Curvili	1/Conc	0.000045	0.000004	-0.000000	1.000000	0.999981	0.000002	5.537602	18.458673
	V 292.402 {115}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000018	0.000022	0.000000	1.000000	0.999993	0.000001	0.339917	1.133056
	Zn 206.200 {463}	02/01/2023 12:39:31	01/31/2023 13:57:09	Linear	1/Var	0.000021	0.000080	0.000000	1.000000	0.999834	0.000093	0.189221	0.630736
	Zn 213.856 {457}	02/01/2023 12:39:31	01/31/2023 13:42:23	Linear	None	0.000128	0.000135	0.000000	1.000000	0.999999	0.000130	0.125295	0.417649
	Y 224.306 {450}*	02/01/2023 12:39:31	01/31/2023 12:44:36	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	02/01/2023 12:39:31	01/31/2023 12:44:36	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	02/01/2023 12:39:31	01/31/2023 12:44:36	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	02/01/2023 12:39:31	01/31/2023 14:20:29	Curvili	1/Conc	0.000015	0.000017	0.000000	1.000000	0.999847	0.000008	2.075605	6.918682
	Na 588.995 { 57}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	1/Conc	0.032081	0.016714	0.000000	1.000000	0.999938	0.000087	0.011511	0.038370
	Na 589.592 { 57}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	1/Conc	39.822719	531.82861	0.000000	1.000000	0.999991	1.047523	0.012160	0.040533
	Si 212.412 {458}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	1/Conc	0.000089	0.000012	0.000000	1.000000	0.998618	0.000296	1.480071	4.933568
	Si 251.611 {134}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	1/Conc	0.000038	0.000002	0.000000	1.000000	0.999082	0.000035	9.876825	32.922751
	Ti 323.452 {104}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.001149	0.000022	0.000000	1.000000	0.999955	0.000002	1.787073	5.956911
	Sr 407.771 { 83}	02/01/2023 12:39:31	01/31/2023 13:49:11	Linear	1/Conc	0.000230	0.000254	0.000000	1.000000	0.999995	0.000003	0.211268	0.704228
	Sr 421.552 { 80}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	-0.000065	0.000250	0.000000	1.000000	0.999997	0.000002	0.226036	0.753455
	Sn 189.989 {477}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	0.000021	0.000016	0.000000	1.000000	0.999940	0.000002	0.745150	2.483834
	Sn 189.989 {478}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999952	0.000000	2.775909	9.253030
	B 249.678 {135}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	0.000028	0.000004	0.000000	1.000000	0.999977	0.000000	0.979947	3.266491
	B 249.773 {135}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	0.000008	0.000007	0.000000	1.000000	0.999988	0.000001	0.443066	1.476888
	Li 610.353 { 55}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Var	-0.000406	0.000007	0.000000	1.000000	0.999064	0.000361	27.994540	93.315134
	Li 670.776 { 50}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	-0.000289	0.000053	0.000000	1.000000	0.999961	0.000006	2.390535	7.968449
	K 766.490 { 44}	02/01/2023 12:39:31	01/31/2023 14:04:37	Linear	None	43.715623	118.54334	0.000000	1.000000	0.999989	33.290933	0.060378	0.201260
	K 769.896 { 44}	02/01/2023 12:39:31	01/31/2023 14:20:29	Linear	1/Conc	37.452141	55.133828	0.000000	1.000000	0.999959	0.677367	0.096015	0.320049
	P 177.495 {489}	02/01/2023 12:39:31	01/31/2023 13:49:12	Linear	1/Conc	-0.000007	0.000002	0.000000	1.000000	0.999753	0.000009	3.031466	10.104885
	S 182.034 {485}	02/01/2023 12:39:31	01/31/2023 14:20:29	Curvili	1/Conc	0.000053	0.000002	0.000000	1.000000	0.999980	0.000019	5.076545	16.921816
	Hg 184.950 {482}	02/01/2023 12:39:31	01/31/2023 13:42:24	Linear	1/Conc	-0.000027	0.000012	0.000000	1.000000	0.999985	0.000000	0.779853	2.599511
	Hg 194.227 {473}	02/01/2023 12:39:31	01/31/2023 13:42:24	Linear	1/Conc	0.000002	0.000015	0.000000	1.000000	0.999595	0.000001	0.756213	2.520710
	Ce 404.076 { 83}	02/01/2023 12:39:31	01/31/2023 13:42:24	Linear	1/Conc	0.000251	0.000001	0.000000	1.000000	1.000000	0.000000	36.042444	120.14148

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	Warnin	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Hg 194.227 {473}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Ce	-0.006002	0.000000	No
			Ti	0.000000	0.000000	No
Ag 338.289 {100}	☒	2	Fe	0.000307	0.000000	No
			Ti	0.000000	0.000000	No
Al 167.079 {501}	☒	None				
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001717	0.000000	No
As 197.262 {471}	☒	1	Al	0.000027	0.000000	No
Ba 233.527 {145}	☒	1	Fe	0.000004	0.000000	No
Ba 233.527 {445}	☒	2	Fe	-0.000002	0.000000	No
			Cu	0.000181	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	S	0.000000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000008	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000006	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000049	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	4	Fe	-0.000007	0.000000	No
			Ba	0.000092	0.000000	No
			Ti	0.002165	0.000000	No
			Ni	0.003013	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	1	Fe	0.000008	0.000000	No
Cu 223.008 {451}	☒	4	Fe	0.000026	0.000000	No
			Tl	0.000000	0.000000	No
			Mo	0.007000	0.000000	No
			Ti	0.007000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000217	0.000000	No
Cu 327.396 {103}	☒	2	Fe	0.000005	0.000000	No
			Ti	0.000000	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 257.610 {131}	☒	1	Al	-0.000002	0.000000	No
Mn 259.373 {130}	☒	1	Mg	0.001189	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000012	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000037	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	5	Fe	-0.000018	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.007139	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {153}	☒	2	Fe	-0.000017	0.000000	No
			Al	-0.000040	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000077	0.000000	No
Sb 206.833 {463}	☒	2	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000166	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000012	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000288	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000065	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.001538	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000015	0.000000	No
Zn 213.856 {457}	☒	1	Fe	0.000122	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	1	Sr	0.000000	0.000000	No
Na 588.995 { 57}	☒	1	Fe	0.000000	0.000000	No
Na 589.592 { 57}	☒	1	Fe	-0.000000	0.000000	No
Si 212.412 {458}	☒	1	Fe	-0.000017	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000026	0.000000	No
Ti 323.452 {104}	☒	None				
Sr 407.771 { 83}	☒	1	Fe	0.000018	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000023	0.000000	No
Sn 189.989 {478}	☒	1	Fe	0.000007	0.000000	No
B 249.678 {135}	☒	1	Fe	-0.000026	0.000000	No
B 249.773 {135}	☒	1	Fe	0.003795	0.000000	No
Li 610.353 { 55}	☒	1	Fe	-0.000109	0.000000	No
Li 670.776 { 50}	☒	1	Fe	0.000023	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000000	0.000000	No
K 769.896 { 44}	☒	2	Fe	-0.000002	0.000000	No
			Cu	0.000000	0.000000	No
P 177.495 {489}	☒	None				
S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
			Fe	0.000075	0.000000	No
Hg 184.950 {482}	☒	1	Fe	-0.000010	0.000000	No
Hg 194.227 {473}	☒	1	Fe	0.000043	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

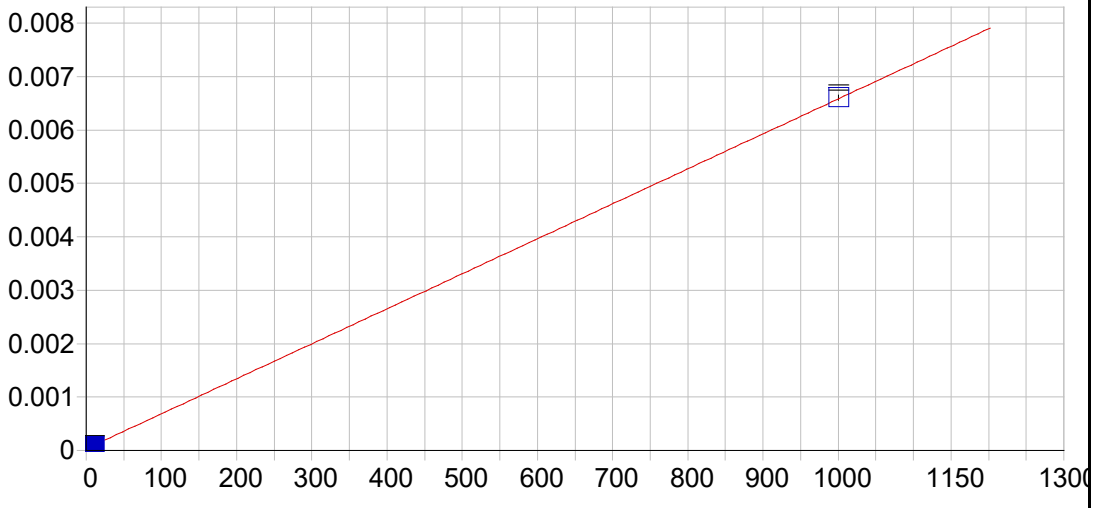


Ag 328.068 {103}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000035	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998953	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.547815		
Predicted MQL:	1.826049		

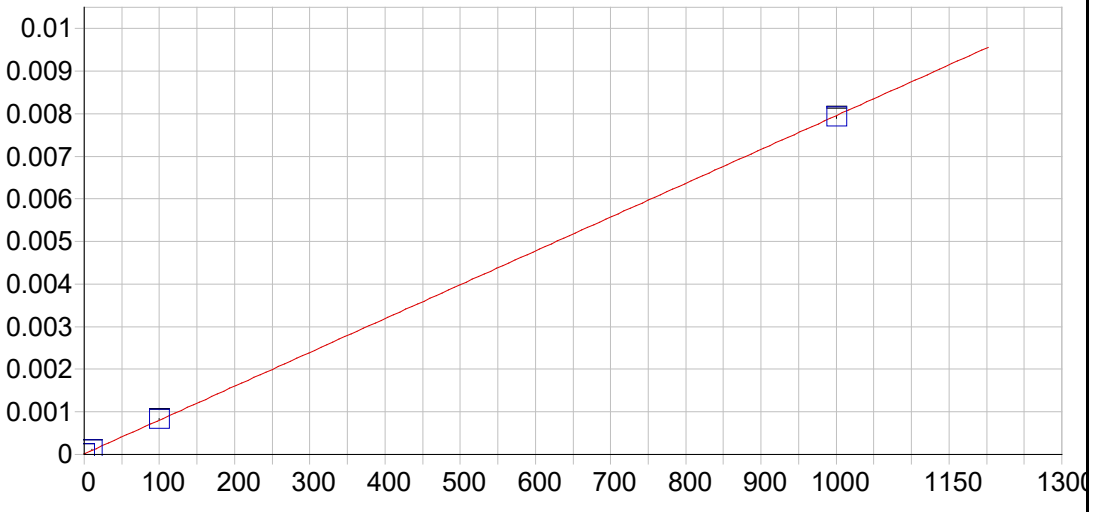
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.8634	1.86	.000	-.00002	.000	1
CalStd8=100	100.00	100.49	.493	.493	.00068	.000	1
CalStd4=5	5.0000	5.3304	.330	6.61	.00000	.000	1
CalStd5=10	10.000	8.3853	-1.61	-16.1	.00002	.000	1



Ag 338.289 {100}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000032		Re-Slope:	1.000000	
A1 (Gain):	0.000007		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999445		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.768529				
Predicted MQL:	2.561764				

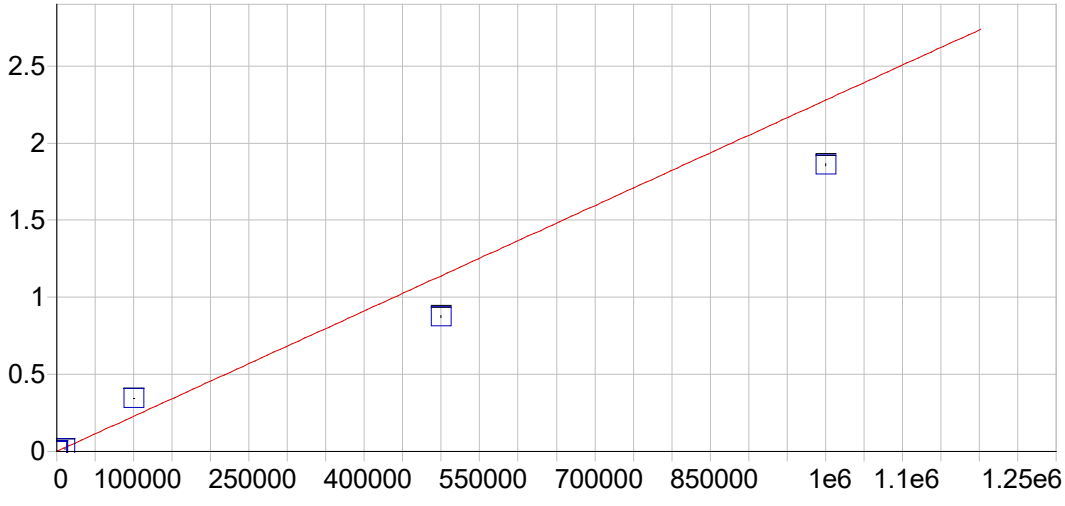
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00330	.003	.000	.00003	.000	1
Ag 1000 Ba	1000.0	1003.3	3.33	.333	.00660	.000	1
CalStd5=10	10.000	6.6693	-3.33	-33.3	.00008	.000	1



Al 167.079 {501}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000013		Re-Slope:	1.000000	
A1 (Gain):	0.000008		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999758		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.614195				
Predicted MQL:	2.047315				

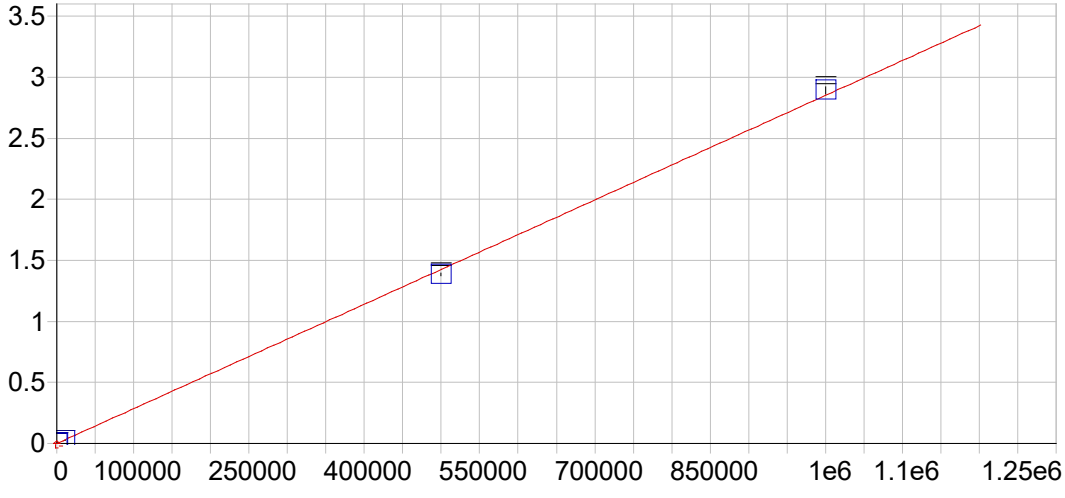
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00231	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	995.04	-4.96	-.496	.00792	.000	1
CalStd5=10	10.000	12.069	2.07	20.7	.00011	.000	1
CalStd8=100	100.00	102.89	2.89	2.89	.00083	.000	1



Al 309.271 {109}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000262		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.948691		Status:	OK.	
Std Error of Est:	0.001825				
Predicted MDL:	17.219889				
Predicted MQL:	57.399631				

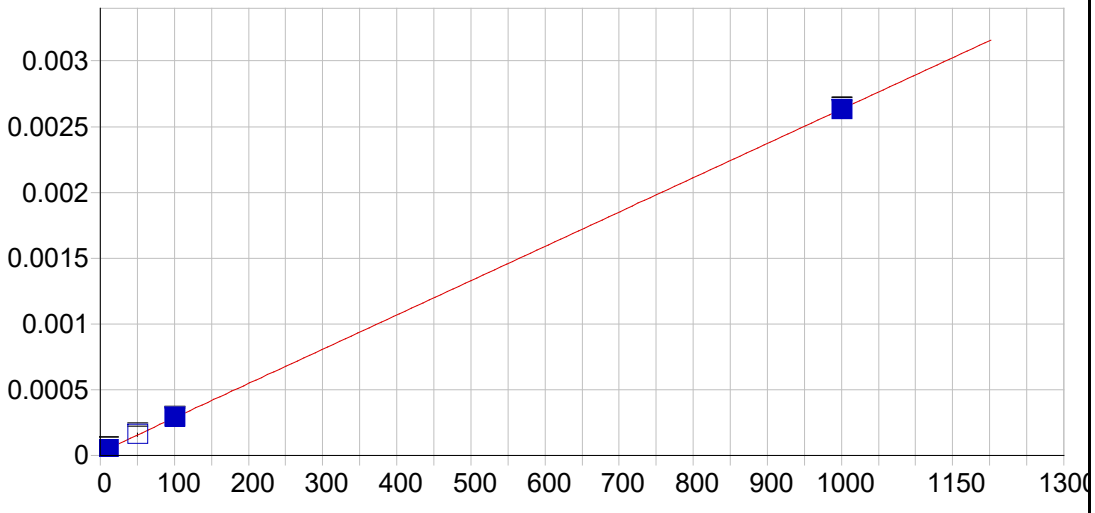
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	130.96	131.	.000	.00056	.000	1
CalStd9=100	1000.0	926.05	-74.0	-7.40	.00237	.000	1
CalStd5=10	10.000	158.46	148.	1480.	.00062	.000	1
CalStd8=100	100.00	217.76	118.	118.	.00076	.000	1
CalStd10=10	10000.	7647.7	-2350.	-23.5	.01768	.000	1
CalStd13=10	100000.	151190.	51200.	51.2	.34462	.001	1
CalStd14=50	500000.	383820.	-116000.	-23.2	.87448	.007	1
CalibStd15=	1000000.	816020.	-184000.	-18.4	1.8589	.008	1



Al 396.152 { 85}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000132		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999785		Status:	OK.	
Std Error of Est:	0.000094				
Predicted MDL:	19.755045				
Predicted MQL:	65.850150				

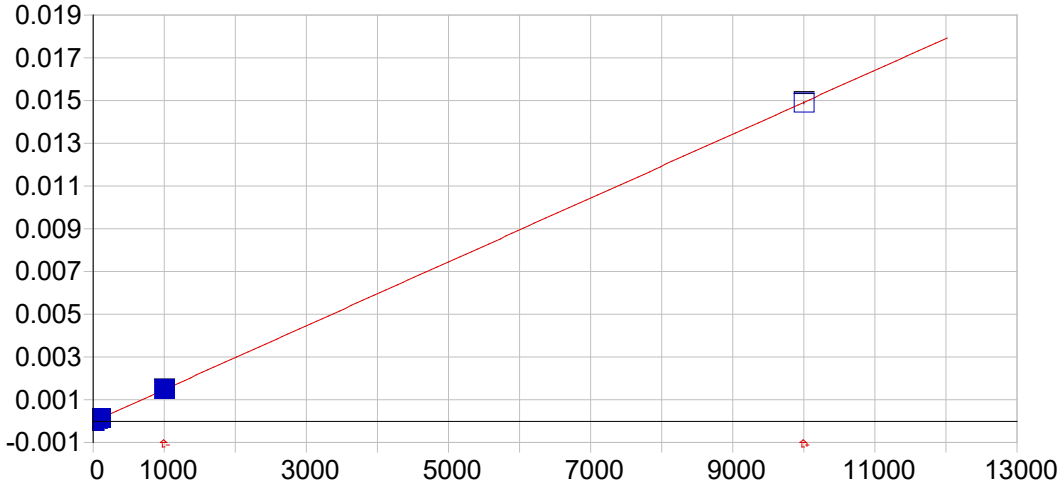
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.10533	.105	.000	.00013	.000	1
CalStd14=50	500000.	485830.	-14200.	-2.83	1.3850	.011	1
CalStd10=10	10000.	9463.0	-537.	-5.37	.02711	.000	1
CalStd9=100	1000.0	961.97	-38.0	-3.80	.00287	.000	1
CalibStd15=	1000000.	1014700.	14700.	1.47	2.8927	.029	1



As 193.759 {474}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000025		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999744		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	4.894186				
Predicted MQL:	16.313952				

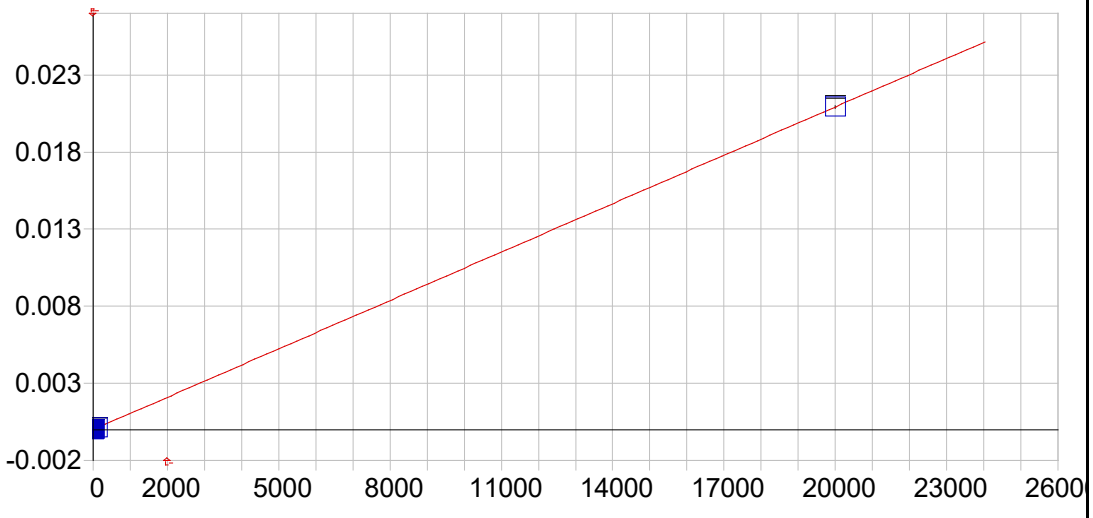
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00186	.002	.000	.00002	.000	1
CalStd9=100	1000.0	999.22	-.783	-.078	.00264	.000	1
CalStd7=50	50.000	51.354	1.35	2.71	.00016	.000	1
CalStd5=10	10.000	7.7013	-2.30	-23.0	.00005	.000	1
CalStd8=100	100.00	101.73	1.73	1.73	.00029	.000	1



As 197.262 {471}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000019		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999879		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	6.981592				
Predicted MQL:	23.271974				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00503	-.005	.000	-.00002	.000	1
CalStd9=100	1000.0	999.16	-.837	-.084	.00147	.000	1
CalStd7=50	50.000	58.418	8.42	16.8	.00007	.000	1
CalStd5=10	10.000	12.632	2.63	26.3	-.00000	.000	1
CalStd8=100	100.00	107.41	7.41	7.41	.00014	.000	1
CalStd10=10	10000.	9982.4	-17.6	-.176	.01489	.000	1

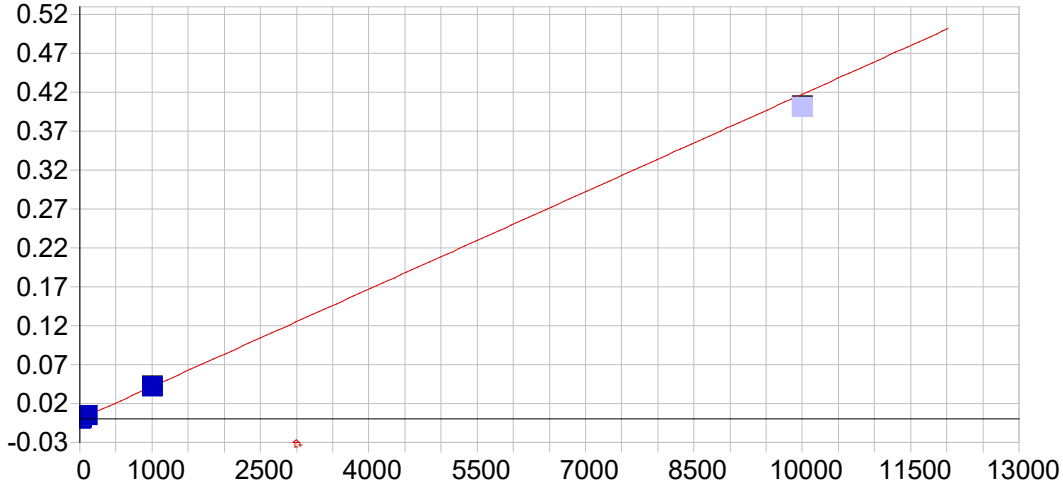


Ba 233.527 {145}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999846	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	8.221867		
Predicted MQL:	27.406222		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00392	-.004	.000	.00000	.000	1
CalStd5=10	10.000	16.828	6.83	68.3	.00002	.000	1
CalStd6=20	20.000	25.308	5.31	26.5	.00003	.000	1
CalStd8=100	100.00	99.004	-.996	-.996	.00011	.000	1
CalStd4=5	5.0000	4.2353	-.765	-15.3	.00001	.000	1
Ag 1000 Ba	20000.	19990.	-10.4	-.052	.02092	.000	1

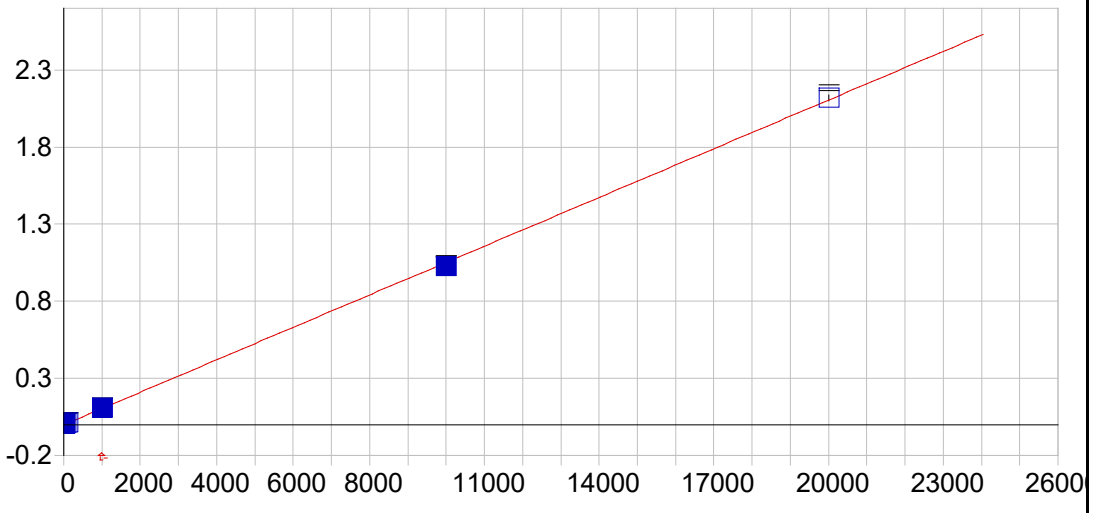


Ba 233.527 {445}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000042	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.273554		
Predicted MQL:	0.911847		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00038	-.000	.000	-.00001	.000	1
CalStd5=10	10.000	10.337	.337	3.37	.00042	.000	1
CalStd6=20	20.000	20.251	.251	1.26	.00084	.000	1
CalStd8=100	100.00	101.70	1.70	1.70	.00424	.000	1
CalStd4=5	5.0000	5.2278	.228	4.56	.00021	.000	1
CalStd9=100	1000.0	997.21	-2.79	-.279	.04164	.000	1
CalStd3=1	1.0000	1.2742	.274	27.4	.00005	.000	1
CalStd10=10	10000.	9592.8	-407.	-4.07	.40059	.002	0

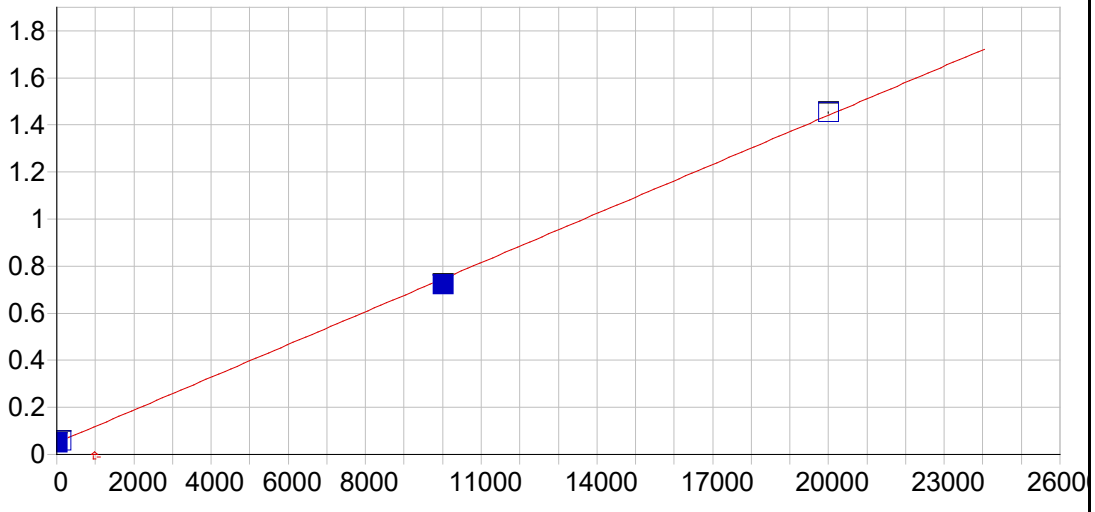


Ba 455.403 { 74}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000845	Re-Slope:	1.000000
A1 (Gain):	0.000105	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999895	Status:	OK.
Std Error of Est:	0.010861		
Predicted MDL:	0.455479		
Predicted MQL:	1.518263		

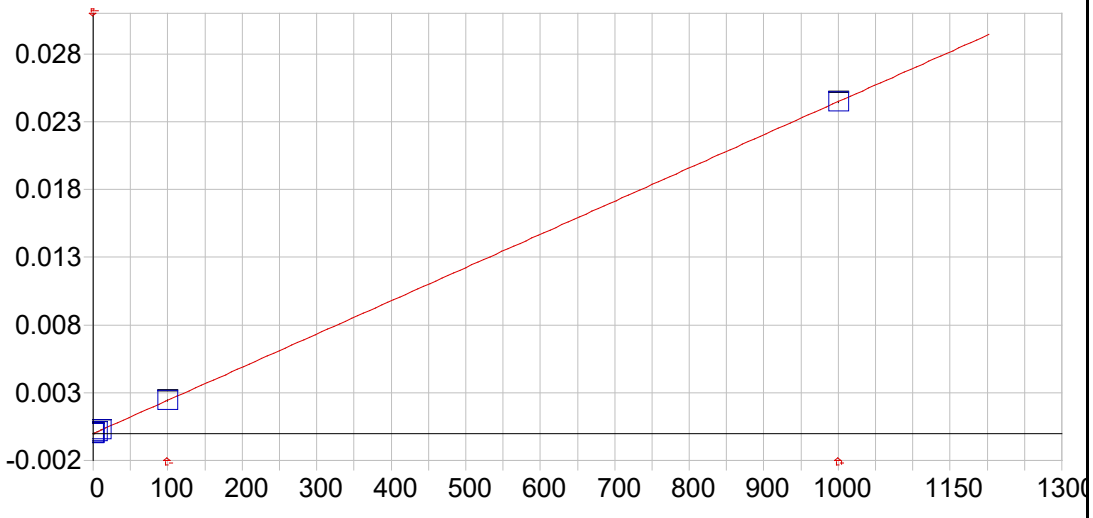
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	16.565	16.6	.000	.00090	.000	1
CalStd7=50	50.000	67.022	17.0	34.0	.00621	.000	1
CalStd5=10	10.000	26.896	16.9	169.	.00199	.000	1
CalStd6=20	20.000	36.546	16.5	82.7	.00300	.000	1
CalStd8=100	100.00	117.04	17.0	17.0	.01148	.000	1
CalStd4=5	5.0000	21.767	16.8	335.	.00145	.000	1
CalStd9=100	1000.0	1012.6	12.6	1.26	.10576	.000	1
CalStd3=1	1.0000	17.382	16.4	1640.	.00098	.000	1
CalStd10=10	10000.	9742.0	-258.	-2.58	1.0248	.004	1
Ag 1000 Ba	20000.	20128.	128.	.641	2.1182	.017	1



Ba 493.409 { 68}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.049725		Re-Slope:	1.000000	
A1 (Gain):	0.000070		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999851		Status:	OK.	
Std Error of Est:	0.000628				
Predicted MDL:	2.116598				
Predicted MQL:	7.055327				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.75617	-.756	.000	.04967	.000	1
CalStd8=100	100.00	100.64	.644	.644	.05673	.000	1
CalStd10=10	10000.	9656.1	-344.	-3.44	.72157	.003	1
Ag 1000 Ba	20000.	20169.	169.	.845	1.4530	.003	1

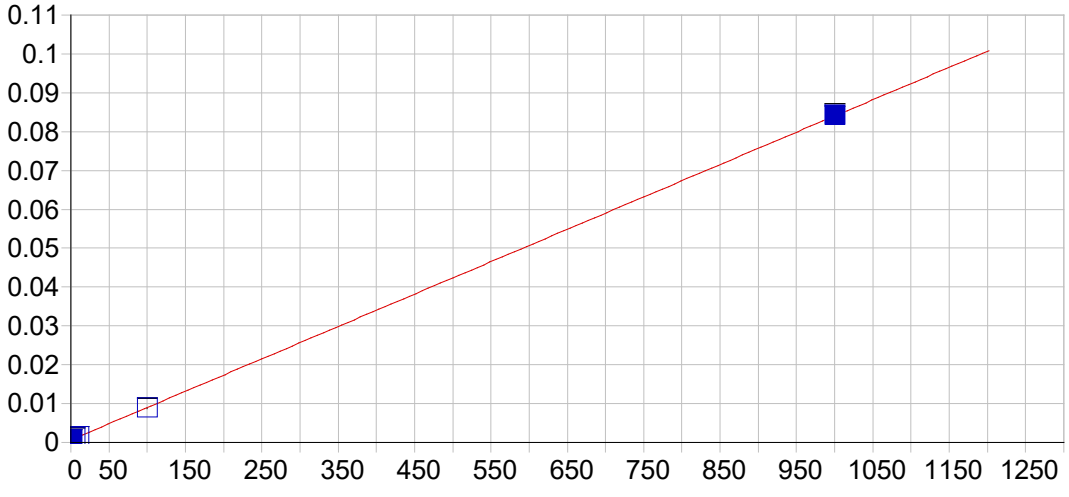


Be 234.861 {144}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999514	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.396312		
Predicted MQL:	1.321039		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00030	-.000	.000	-.00002	.000	1
CalStd5=10	10.000	10.902	.902	9.02	.00025	.000	1
CalStd8=100	100.00	99.789	-.211	-.211	.00243	.000	1
CalStd2=0.5	.50000	.26952	-.230	-46.1	-.00001	.000	1
CalStd4=5	5.0000	5.2048	.205	4.10	.00011	.000	1
CalStd9=100	1000.0	998.39	-1.61	-.161	.02444	.000	1
CalStd3=1	1.0000	1.9416	.942	94.2	.00003	.000	1

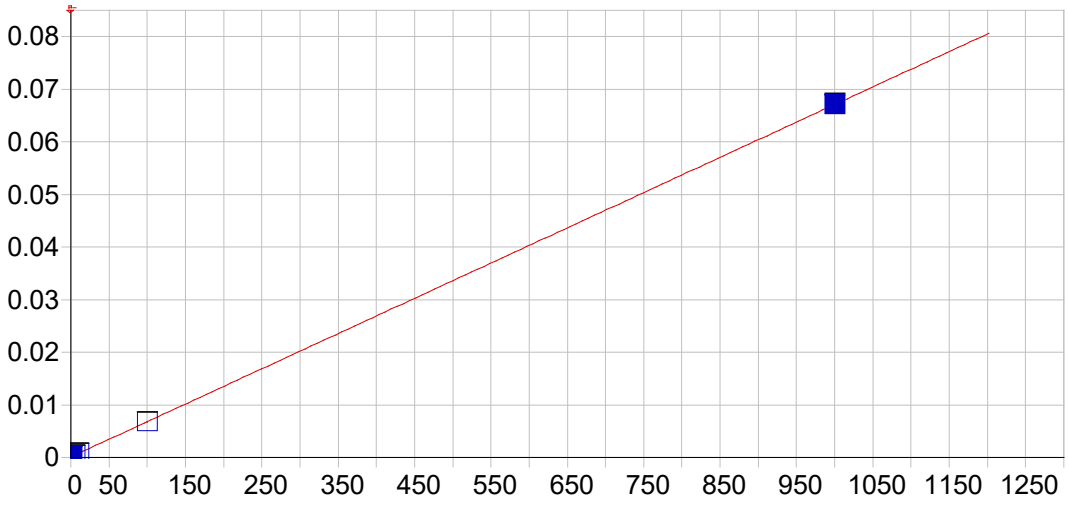


Be 313.042 {108}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000657	Re-Slope:	1.000000
A1 (Gain):	0.000083	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.051124		
Predicted MQL:	0.170415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00030	-.000	.000	.00066	.000	1
CalStd5=10	10.000	9.8351	-.165	-1.65	.00148	.000	1
CalStd8=100	100.00	98.092	-1.91	-1.91	.00884	.000	1
CalStd2=0.5	.50000	.72731	.227	45.5	.00072	.000	1
CalStd4=5	5.0000	5.0643	.064	1.29	.00108	.000	1
CalStd9=100	1000.0	1001.6	1.62	.162	.08417	.000	1
CalStd3=1	1.0000	1.1654	.165	16.5	.00075	.000	1

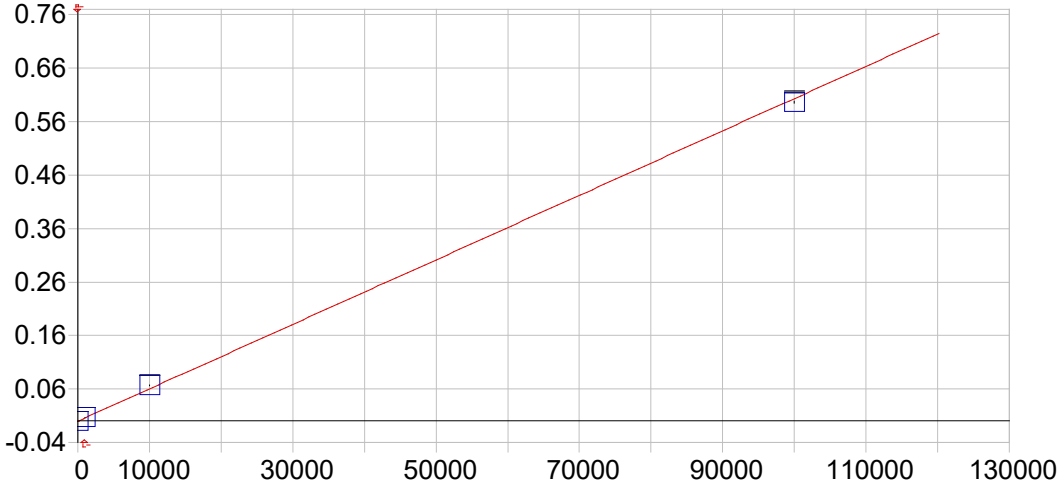


Be 313.107 {108}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000095	Re-Slope:	1.000000
A1 (Gain):	0.000067	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999782	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.458096		
Predicted MQL:	1.526987		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00028	-.000	.000	.00010	.000	1
CalStd5=10	10.000	10.035	.035	.353	.00077	.000	1
CalStd2=0.5	.50000	.94388	.444	88.8	.00016	.000	1
CalStd4=5	5.0000	4.8037	-.196	-3.93	.00042	.000	1
CalStd9=100	1000.0	1000.3	.251	.025	.06711	.000	1
CalStd3=1	1.0000	.71123	-.289	-28.9	.00014	.000	1
CalStd8=100	100.00	99.755	-.245	-.245	.00678	.000	1

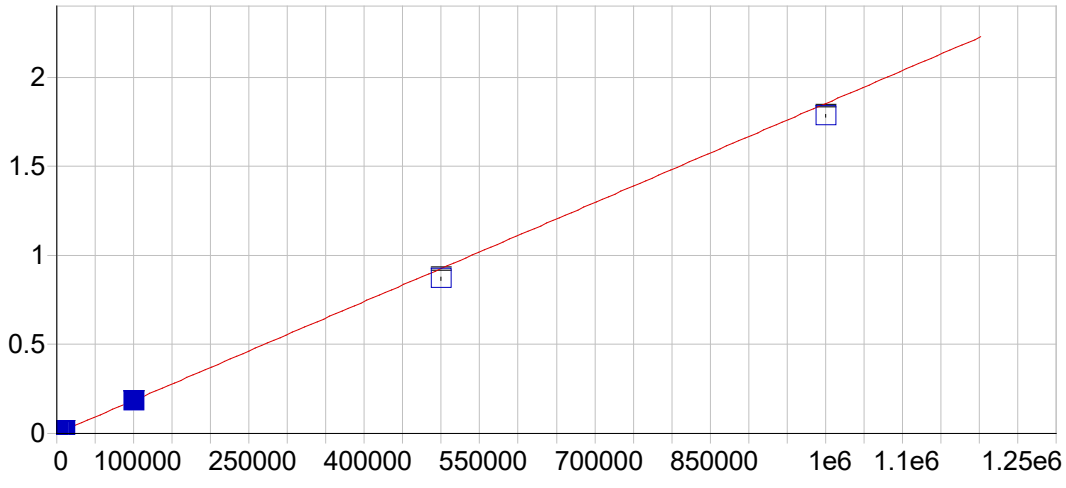


Ca 184.006 {483}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000219	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999361	Status:	OK.
Std Error of Est:	0.000102		
Predicted MDL:	1.714683		
Predicted MQL:	5.715611		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19483	-.195	.000	-.00022	.000	1
CalStd10=10	10000.	11088.	1090.	10.9	.06668	.000	1
CalStd13=10	100000.	98814.	-1190.	-1.19	.59601	.002	1
CalStd9=100	1000.0	1097.9	97.9	9.79	.00641	.000	1

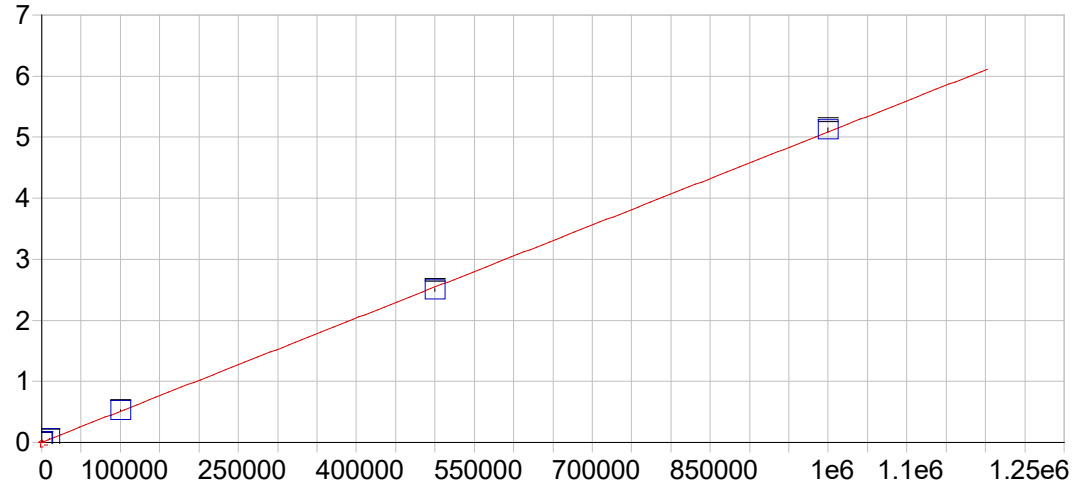


Ca 315.887 {107}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000051	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.000103		
Predicted MDL:	8.460241		
Predicted MQL:	28.200804		

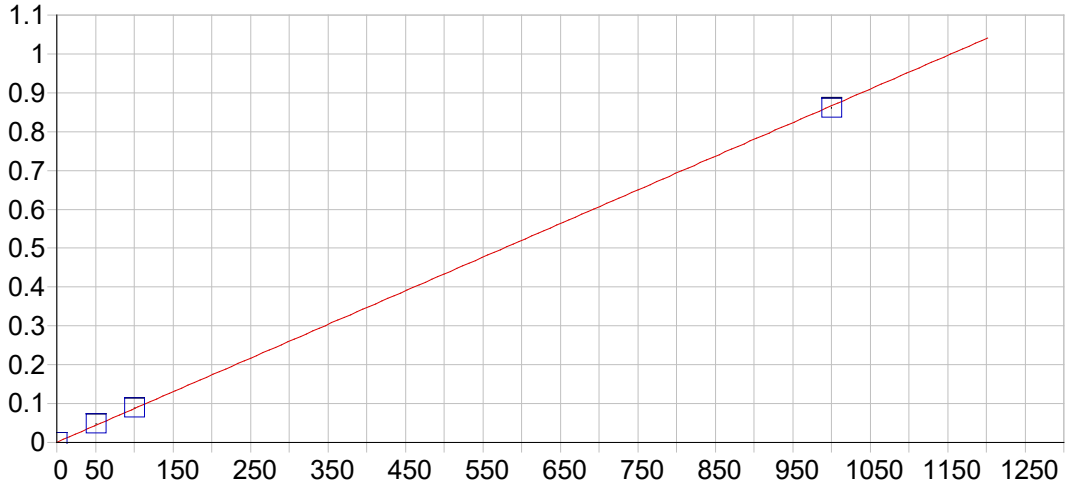
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.7255	-2.73	.000	.00005	.000	1
CalStd10=10	10000.	10323.	323.	3.23	.01917	.000	1
CalStd13=10	100000.	99183.	-817.	-.817	.18378	.001	1
CalStd14=50	500000.	469500.	-30500.	-6.10	.86977	.008	1
CalStd9=100	1000.0	999.91	-.095	-.009	.00190	.000	1
CalibStd15=	1000000.	963080.	-36900.	-3.69	1.7841	.006	1



Ca 317.933 {106}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.002868		Re-Slope:	1.000000	
A1 (Gain):	0.000005		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999885		Status:	OK.	
Std Error of Est:	0.000120				
Predicted MDL:	4.026882				
Predicted MQL:	13.422940				

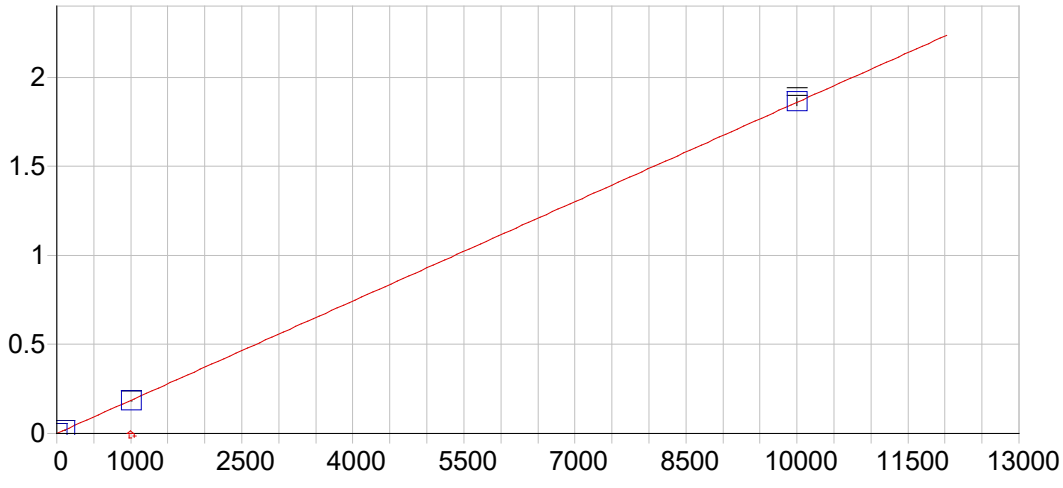
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.13609	-.136	.000	.00287	.000	1
CalStd10=10	10000.	10785.	785.	7.85	.05769	.000	1
CalStd13=10	100000.	103000.	3000.	3.00	.52642	.001	1
CalStd14=50	500000.	490400.	-9600.	-1.92	2.4957	.021	1
CalStd9=100	1000.0	1041.0	41.0	4.10	.00816	.000	1
CalibStd15=	1000000.	1005800.	5770.	.577	5.1154	.031	1



Ca 393.366 { 86}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000512		Re-Slope:	1.000000	
A1 (Gain):	0.000866		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999803		Status:	OK.	
Std Error of Est:	0.000184				
Predicted MDL:	0.065208				
Predicted MQL:	0.217359				

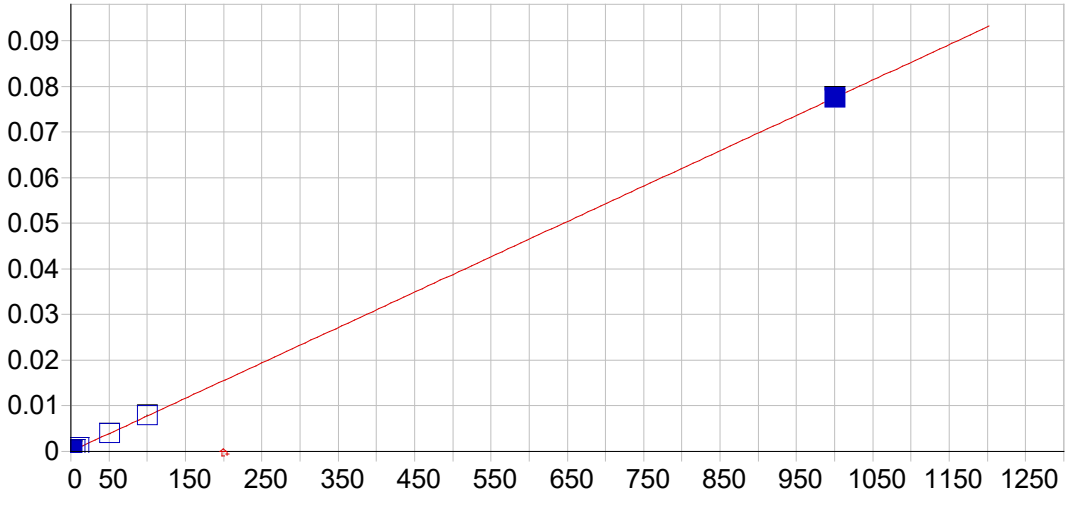
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00496	-.005	.000	.00051	.000	1
CalStd9=100	1000.0	993.85	-6.15	-.615	.86111	.001	1
CalStd8=100	100.00	101.77	1.77	1.77	.08864	.001	1
CalStd7=50	50.000	54.380	4.38	8.76	.04760	.000	1



Ca 396.847 { 85}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000070		Re-Slope:	1.000000	
A1 (Gain):	0.000186		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999971		Status:	OK.	
Std Error of Est:	0.000067				
Predicted MDL:	0.204462				
Predicted MQL:	0.681541				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00232	.002	.000	.00007	.000	1
CalStd10=10	10000.	10024.	24.3	.243	1.8639	.022	1
CalStd8=100	100.00	99.851	-.149	-.149	.01864	.000	1
CalStd9=100	1000.0	975.81	-24.2	-2.42	.18150	.000	1

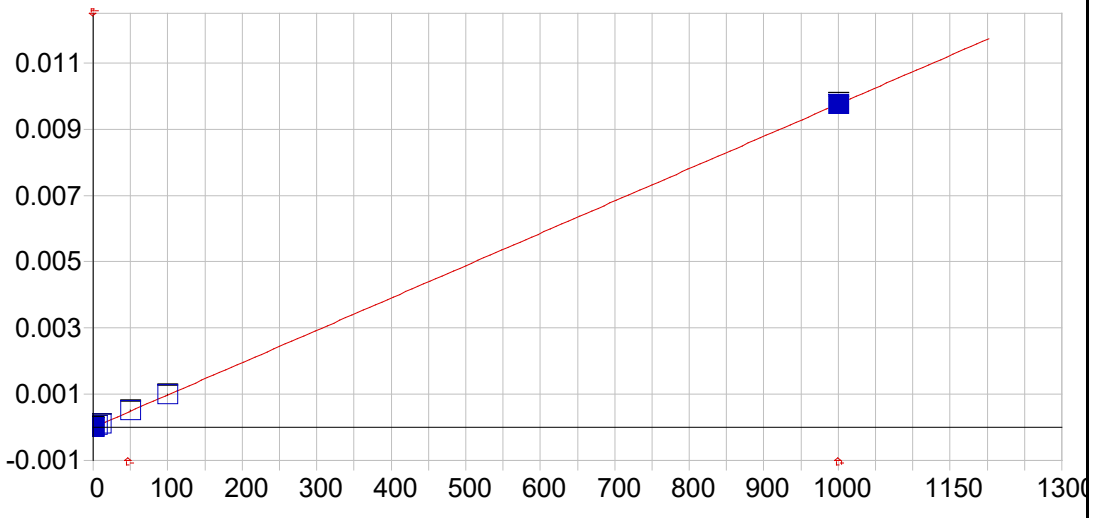


Cd 226.502 {449}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000078	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999944	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.239105		
Predicted MQL:	0.797017		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00023	.000	.000	.00003	.000	1
CalStd3=1	1.0000	.78085	-.219	-21.9	.00009	.000	1
CalStd2=0.5	.50000	.34344	-.157	-31.3	.00005	.000	1
CalStd4=5	5.0000	5.1322	.132	2.64	.00042	.000	1
CalStd5=10	10.000	10.153	.153	1.53	.00081	.000	1
CalStd9=100	1000.0	998.19	-1.81	-.181	.07739	.000	1
CalStd8=100	100.00	101.43	1.43	1.43	.00789	.000	1
CalStd7=50	50.000	50.476	.476	.951	.00394	.000	1

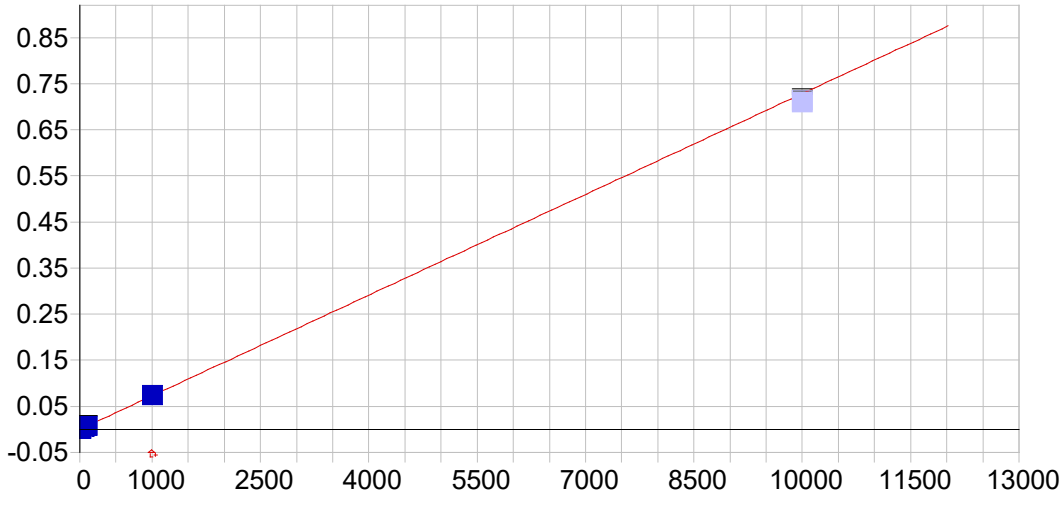


Cd 228.802 {448}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.071079		
Predicted MQL:	3.570265		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00024	.000	.000	.00000	.000	1
CalStd3=1	1.0000	.78561	-.214	-21.4	.00001	.000	1
CalStd2=0.5	.50000	.32204	-.178	-35.6	.00000	.000	1
CalStd4=5	5.0000	5.3235	.323	6.47	.00005	.000	1
CalStd5=10	10.000	10.160	.160	1.60	.00010	.000	1
CalStd9=100	1000.0	998.91	-1.09	-.109	.00975	.000	1
CalStd8=100	100.00	100.35	.345	.345	.00098	.000	1
CalStd7=50	50.000	50.655	.655	1.31	.00049	.000	1

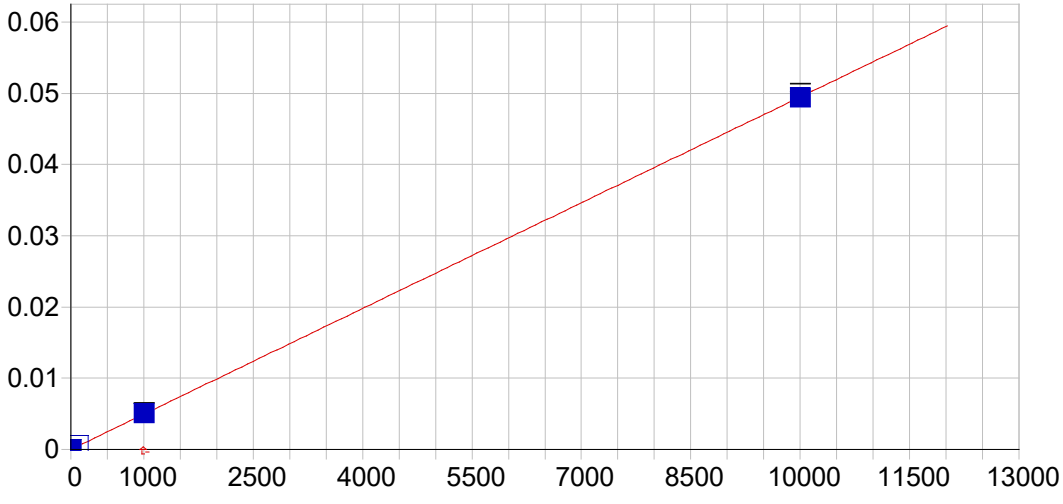


Co 228.616 {447}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000044	Re-Slope:	1.000000
A1 (Gain):	0.000073	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.276664		
Predicted MQL:	0.922213		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	-.000	.000	-.00004	.000	1
CalStd7=50	50.000	50.992	.992	1.98	.00368	.000	1
CalStd5=10	10.000	10.195	.195	1.95	.00070	.000	1
CalStd4=5	5.0000	4.8469	-.153	-3.06	.00031	.000	1
CalStd8=100	100.00	101.62	1.62	1.62	.00740	.000	1
CalStd9=100	1000.0	997.31	-2.69	-.269	.07297	.000	1
CalStd3=1	1.0000	1.0385	.038	3.85	.00003	.000	1
CalStd10=10	10000.	9731.9	-268.	-2.68	.71251	.003	0

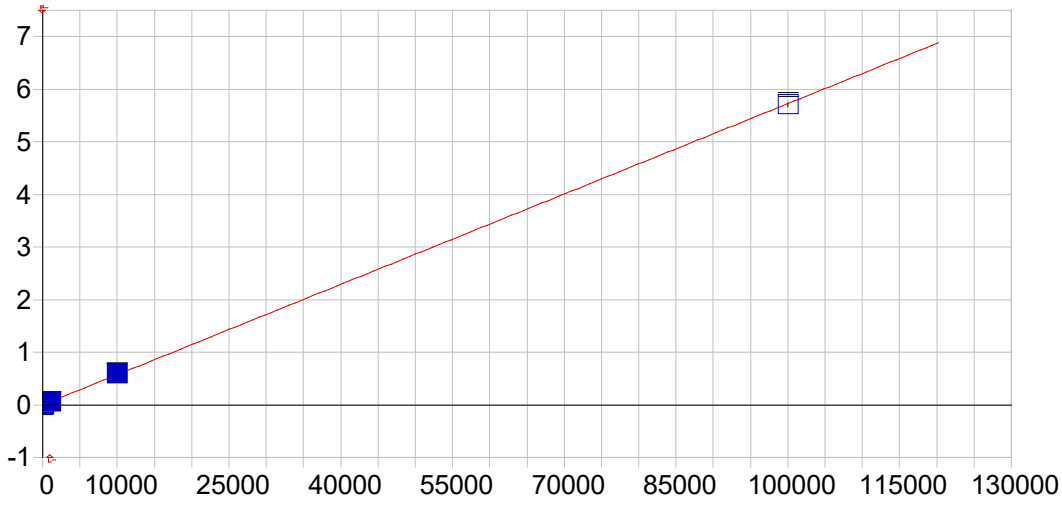


Co 238.892 {141}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999974	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.601684		
Predicted MQL:	2.005613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00549	-.005	.000	.00000	.000	1
CalStd9=100	1000.0	1019.4	19.4	1.94	.00505	.000	1
CalStd10=10	10000.	9976.8	-23.2	-.232	.04937	.001	1
CalStd8=100	100.00	103.78	3.78	3.78	.00052	.000	1

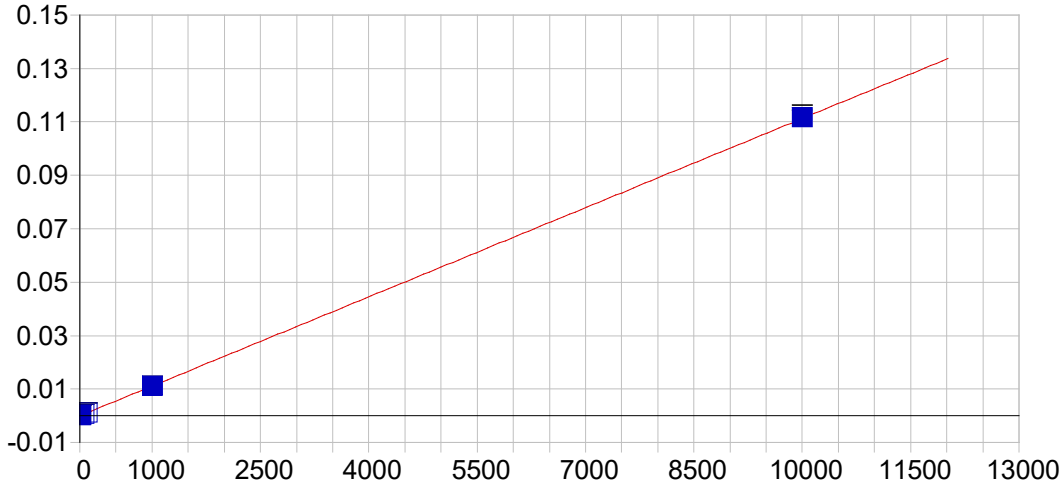


Cr 205.560 {464}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000027	Re-Slope:	1.000000
A1 (Gain):	0.000057	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999919	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.247327		
Predicted MQL:	0.824424		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00061	-.001	.000	-.00003	.000	1
CalStd5=10	10.000	10.830	.830	8.30	.00059	.000	1
CalStd7=50	50.000	53.747	3.75	7.49	.00305	.000	1
CalStd9=100	1000.0	1059.5	59.5	5.95	.06063	.000	1
CalStd8=100	100.00	107.20	7.20	7.20	.00611	.000	1
CalStd4=5	5.0000	5.5496	.550	11.0	.00029	.000	1
CalStd3=1	1.0000	1.1770	.177	17.7	.00004	.000	1
CalStd10=10	10000.	10342.	342.	3.42	.59212	.003	1
CalStd12=10	100000.	99586.	-414.	-.414	5.7016	.036	1

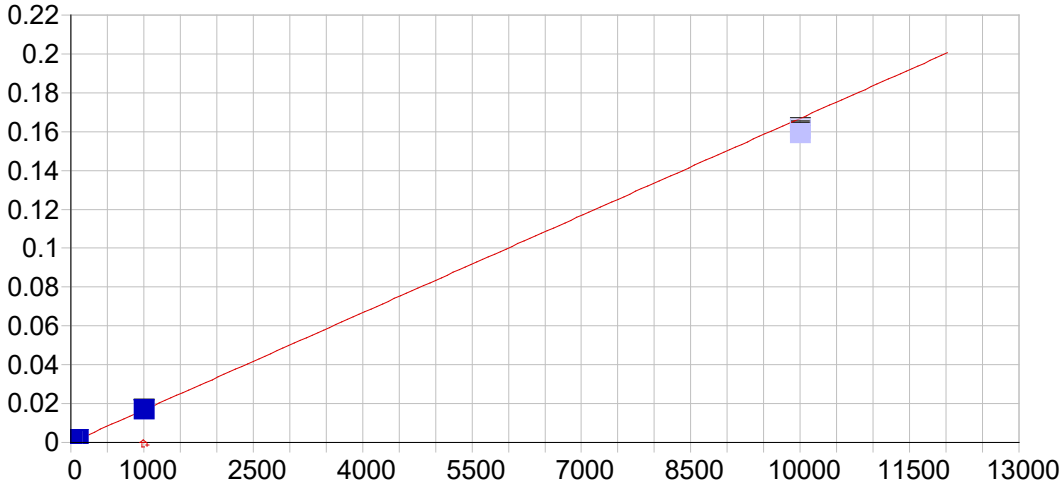


Cr 267.716 {126}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.349249		
Predicted MQL:	1.164164		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00021	-.000	.000	-.00002	.000	1
CalStd5=10	10.000	10.259	.259	2.59	.00010	.000	1
CalStd7=50	50.000	50.401	.401	.801	.00054	.000	1
CalStd9=100	1000.0	981.09	-18.9	-1.89	.01090	.000	1
CalStd8=100	100.00	100.08	.081	.081	.00110	.000	1
CalStd4=5	5.0000	5.1241	.124	2.48	.00004	.000	1
CalStd10=10	10000.	10018.	18.0	.180	.11149	.001	1

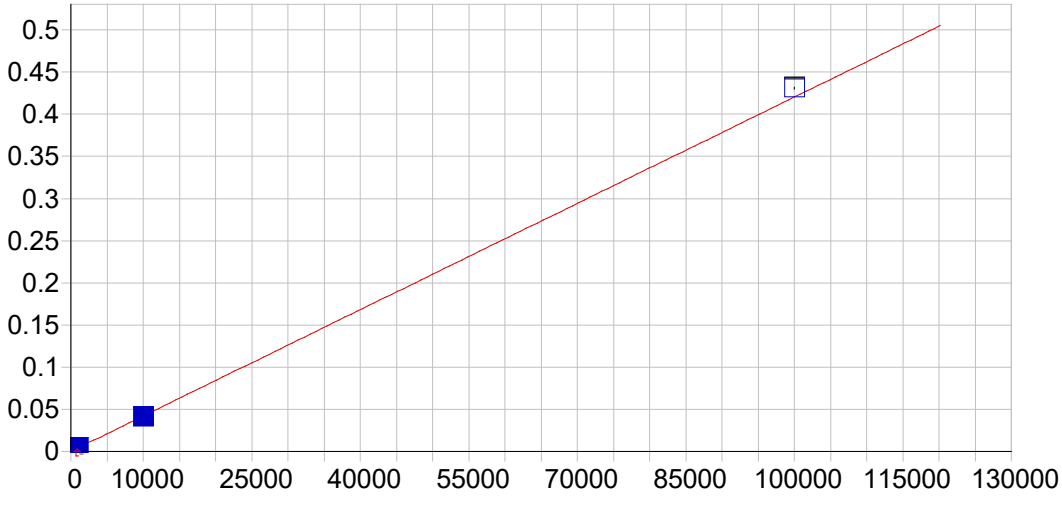


Cu 223.008 {451}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000023	Re-Slope:	1.000000
A1 (Gain):	0.000017	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.165409		
Predicted MQL:	3.884698		

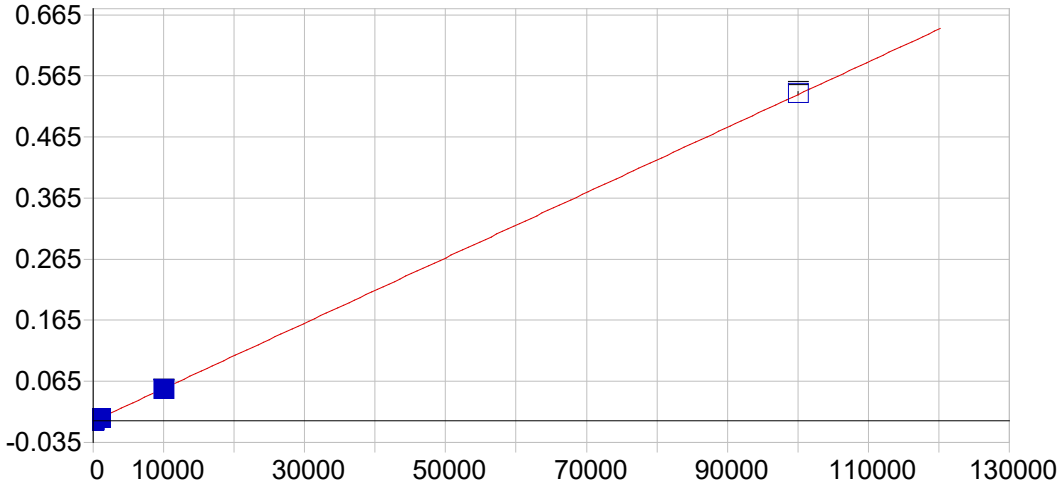
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00075	-.001	.000	.00002	.000	1
CalStd9=100	1000.0	997.34	-2.66	-.266	.01690	.000	1
CalStd8=100	100.00	102.08	2.08	2.08	.00175	.000	1
CalStd5=10	10.000	10.573	.573	5.73	.00020	.000	1
CalStd10=10	10000.	9516.5	-483.	-4.83	.16115	.001	0



Cu 324.754 {104}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000052		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999620		Status:	OK.	
Std Error of Est:	0.000147				
Predicted MDL:	7.730756				
Predicted MQL:	25.769187				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.5696	2.57	.000	.00006	.000	1
CalStd9=100	1000.0	1005.7	5.70	.570	.00428	.000	1
CalStd8=100	100.00	98.952	-1.05	-1.05	.00047	.000	1
CalStd10=10	10000.	9685.1	-315.	-3.15	.04075	.000	1
CalStd12=10	100000.	102540.	2540.	2.54	.43097	.001	1

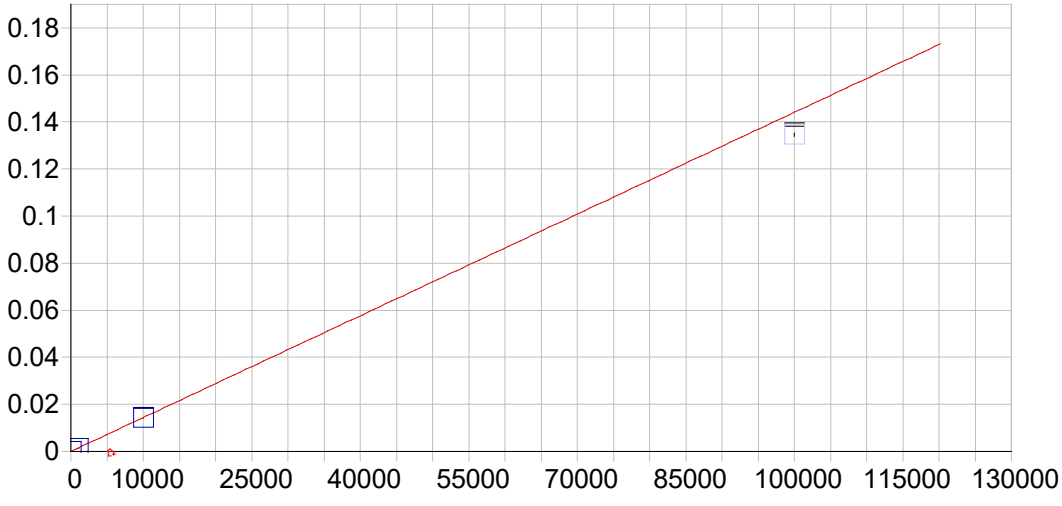


Cu 327.396 {103}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000114	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	6.724382		
Predicted MQL:	22.414606		

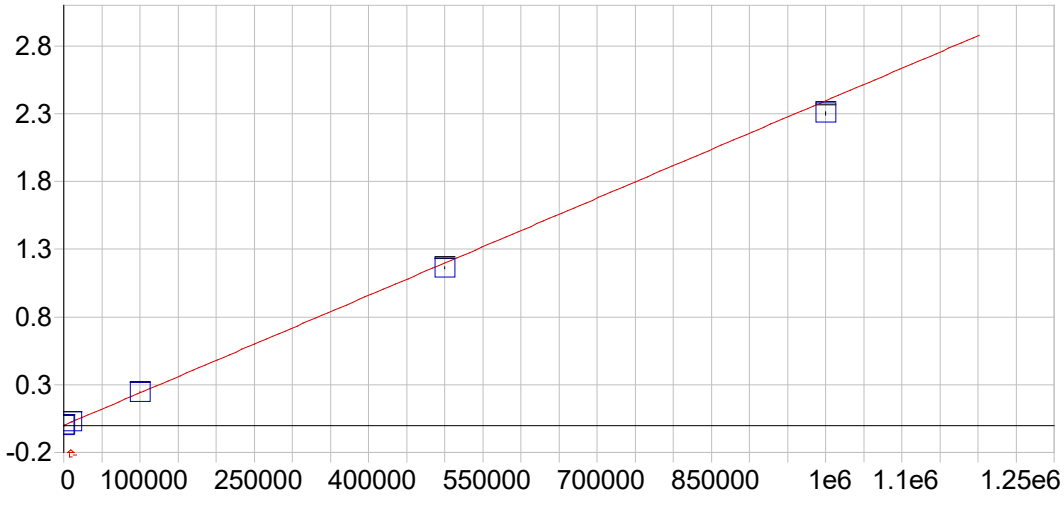
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00407	.004	.000	-.00011	.000	1
CalStd6=20	20.000	15.332	-4.67	-23.3	-.00003	.000	1
CalStd7=50	50.000	47.079	-2.92	-5.84	.00014	.000	1
CalStd8=100	100.00	96.868	-3.13	-3.13	.00040	.000	1
CalStd9=100	1000.0	980.54	-19.5	-1.95	.00513	.000	1
CalStd10=10	10000.	9606.0	-394.	-3.94	.05123	.000	1
CalStd4=5	5.0000	3.4246	-1.58	-31.5	-.00010	.000	1
CalStd5=10	10.000	8.7840	-1.22	-12.2	-.00007	.000	1
CalStd12=10	100000.	100430.	427.	.427	.53664	.003	1



Fe 234.349 {144}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000007		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999949		Status:	OK.	
Std Error of Est:	0.000002				
Predicted MDL:	0.881688				
Predicted MQL:	2.938961				

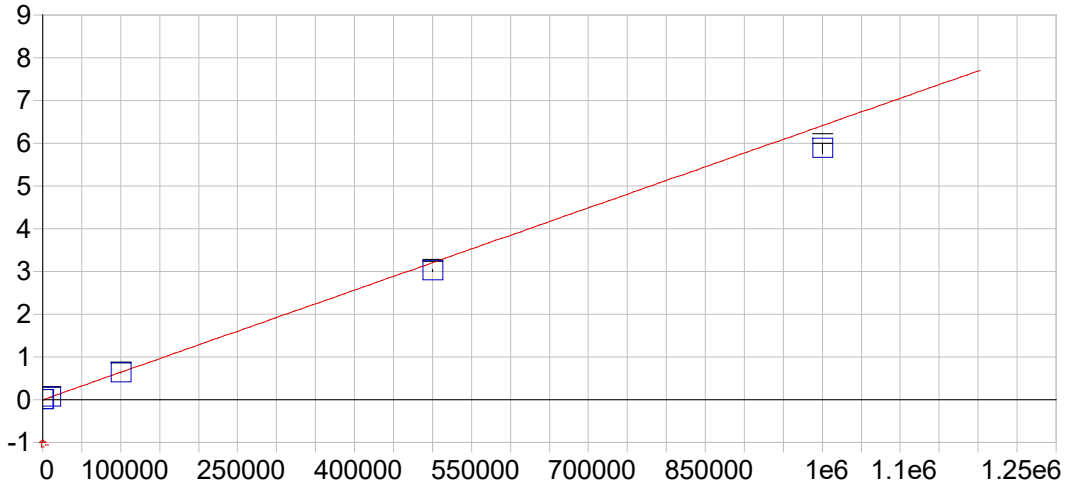
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02144	-.021	.000	.00001	.000	1
CalStd10=10	10000.	9825.0	-175.	-1.75	.01416	.000	1
CalStd13=10	100000.	93357.	-6640.	-6.64	.13450	.001	0
CalStd9=100	1000.0	1005.9	5.86	.586	.00146	.000	1



Fe 239.562 {140}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000062		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999559		Status:	OK.	
Std Error of Est:	0.000185				
Predicted MDL:	6.790417				
Predicted MQL:	22.634722				

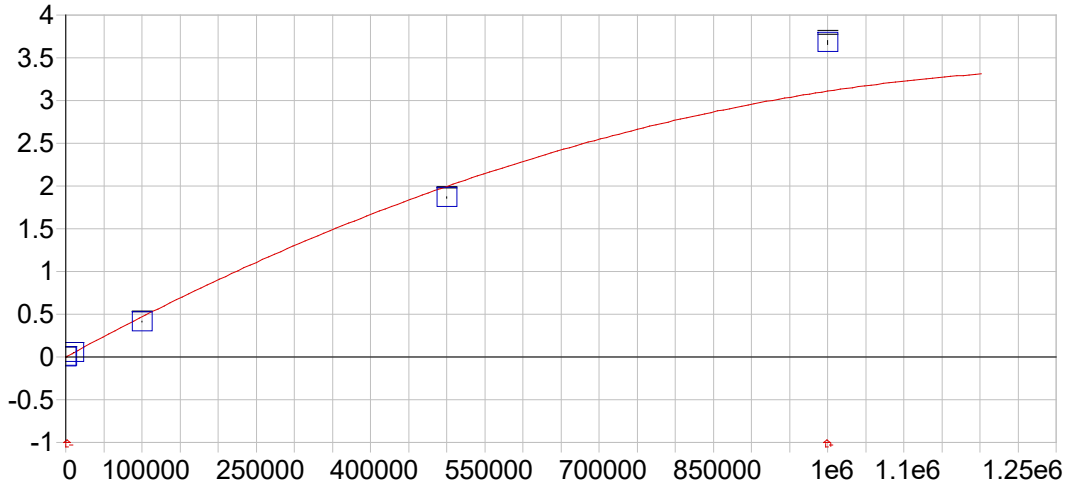
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-21.637	-21.6	.000	.00001	.000	1
CalStd10=10	10000.	10235.	235.	2.35	.02458	.000	1
CalStd13=10	100000.	101940.	1940.	1.94	.24425	.001	1
CalStd14=50	500000.	485150.	-14800.	-2.97	1.1621	.009	1
CalStd9=100	1000.0	1030.5	30.5	3.05	.00253	.000	1
CalibStd15=	1000000.	961770.	-38200.	-3.82	2.3038	.012	1



Fe 259.940 {129}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000045		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999653		Status:	OK.	
Std Error of Est:	0.000144				
Predicted MDL:	3.358380				
Predicted MQL:	11.194600				

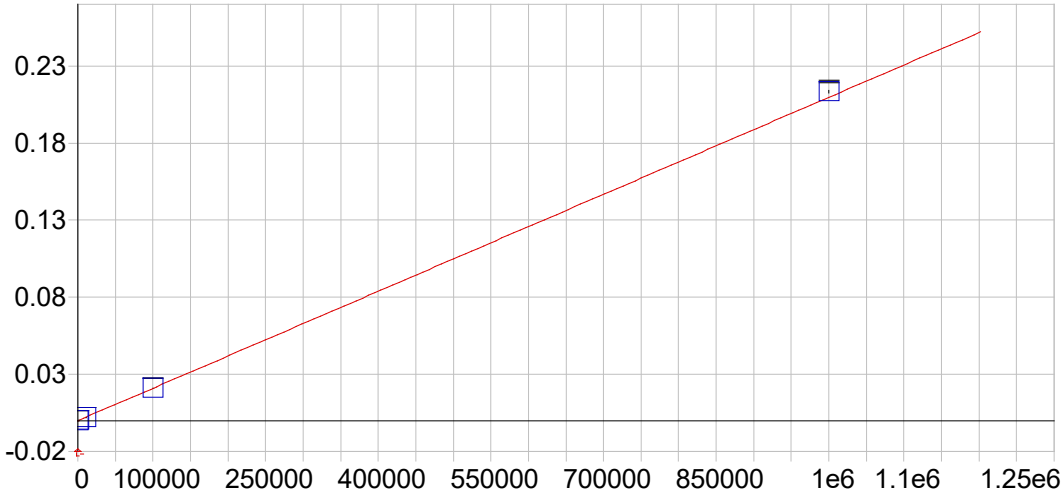
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.5056	-7.51	.000	-.00000	.000	1
CalStd10=10	10000.	10041.	41.3	.413	.06443	.001	1
CalStd13=10	100000.	98639.	-1360.	-1.36	.63252	.002	1
CalStd14=50	500000.	470960.	-29000.	-5.81	3.0198	.026	1
CalStd9=100	1000.0	1017.7	17.7	1.77	.00657	.000	1
CalibStd15=	1000000.	916470.	-83500.	-8.35	5.8765	.108	1



Mg 202.582 {466}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	-0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000005		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.993874		Status:	OK.	
Std Error of Est:	0.000489				
Predicted MDL:	2.854675				
Predicted MQL:	9.515582				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-18.890	-18.9	.000	-.00010	.000	1
CalStd13=10	100000.	87622.	-12400.	-12.4	.41315	.001	1
CalStd10=10	10000.	10076.	76.0	.760	.04888	.000	1
CalStd14=50	500000.	459850.	-40200.	-8.03	1.8670	.006	1
CalStd9=100	1000.0	1122.5	123.	12.3	.00546	.000	1
CalibStd15=	1000000.	.00000	-1000e3	-100.	3.6760	.023	1

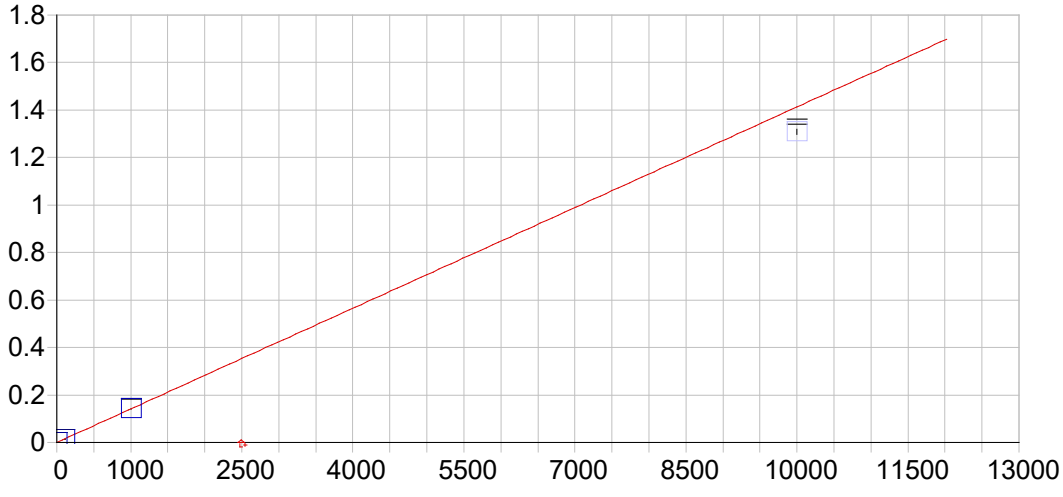


Mg 279.079 {121}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999857	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	43.519396		
Predicted MQL:	145.064654		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	49.153	49.2	.000	.00001	.000	1
CalStd13=10	100000.	99964.	-35.8	-.036	.02095	.000	1
CalStd10=10	10000.	9789.4	-211.	-2.11	.00205	.000	1
CalStd9=100	1000.0	1008.4	8.43	.843	.00021	.000	1
CalibStd15=	1000000.	1017200.	17200.	1.72	.21327	.001	1

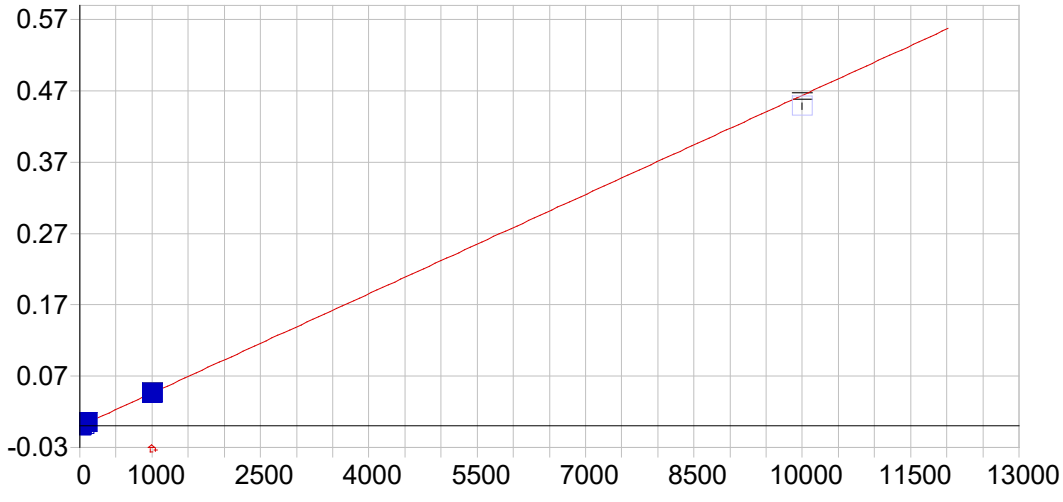


Mg 280.270 {120}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000061	Re-Slope:	1.000000
A1 (Gain):	0.000141	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.015417		
Predicted MQL:	0.051390		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00097	-.001	.000	.00006	.000	1
CalStd9=100	1000.0	998.92	-1.08	-.108	.14120	.001	1
CalStd10=10	10000.	9266.6	-733.	-7.33	1.3094	.011	0
CalStd8=100	100.00	101.08	1.08	1.08	.01434	.000	1

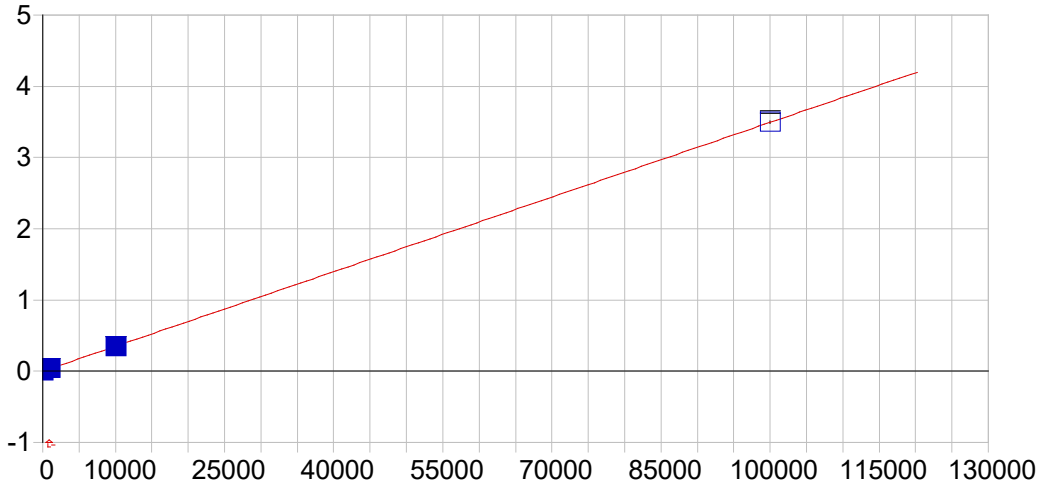


Mn 257.610 {131}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.044882		
Predicted MQL:	0.149607		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00082	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.476	.476	4.76	.00048	.000	1
CalStd7=50	50.000	51.381	1.38	2.76	.00238	.000	1
CalStd6=20	20.000	20.559	.559	2.80	.00095	.000	1
CalStd8=100	100.00	101.77	1.77	1.77	.00472	.000	1
CalStd4=5	5.0000	5.2365	.236	4.73	.00024	.000	1
CalStd9=100	1000.0	995.58	-4.42	-.442	.04618	.000	1
CalStd10=10	10000.	9662.5	-337.	-3.37	.44825	.005	0

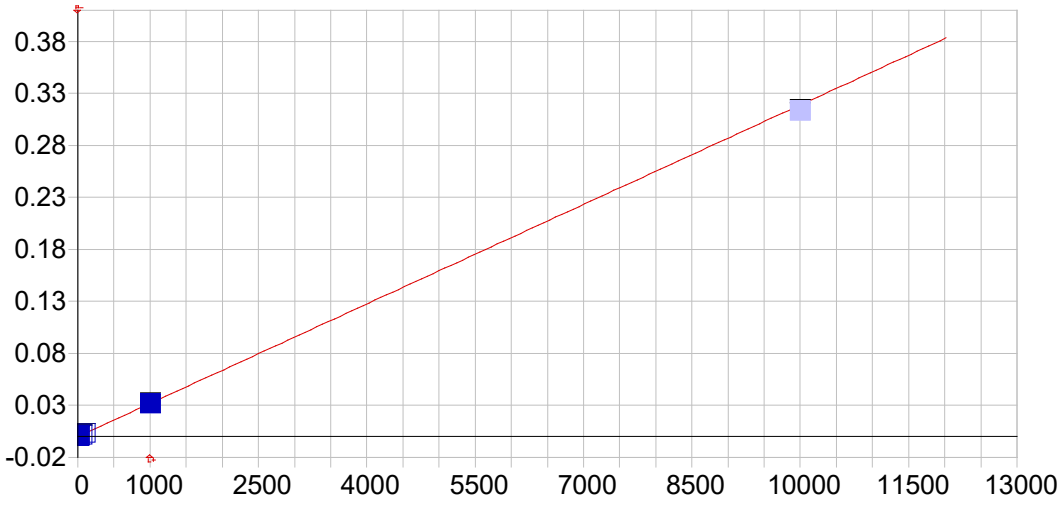


Mn 259.373 {130}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000035	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000068		
Predicted MDL:	0.580970		
Predicted MQL:	1.936567		

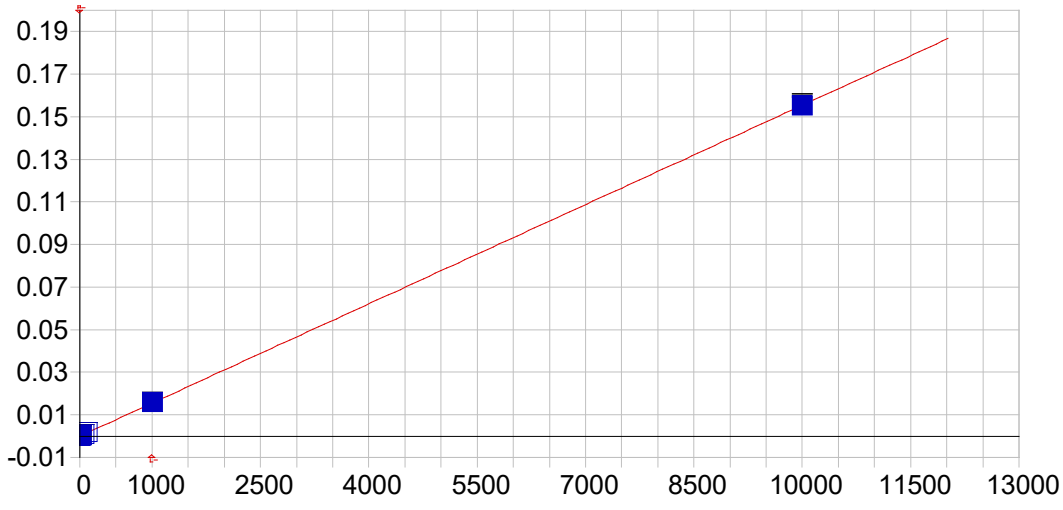
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00534	.005	.000	-.00000	.000	1
CalStd10=10	10000.	9868.8	-131.	-1.31	.34513	.003	1
CalStd9=100	1000.0	1006.5	6.53	.653	.03520	.000	1
CalStd12=10	100000.	100120.	125.	.125	3.4973	.019	1



Mo 202.030 {466}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000013		Re-Slope:	1.000000	
A1 (Gain):	0.000032		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999952		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.409395				
Predicted MQL:	1.364652				

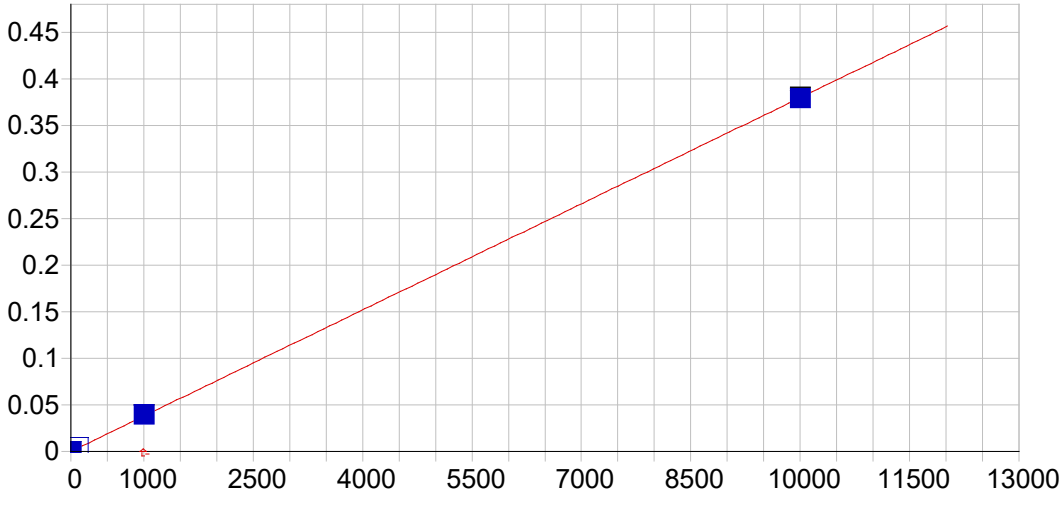
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00085	-.001	.000	.00001	.000	1
CalStd7=50	50.000	50.611	.611	1.22	.00163	.000	1
CalStd6=20	20.000	20.345	.345	1.73	.00066	.000	1
CalStd5=10	10.000	10.802	.802	8.02	.00036	.000	1
CalStd8=100	100.00	101.17	1.17	1.17	.00324	.000	1
CalStd4=5	5.0000	5.2563	.256	5.13	.00018	.000	1
CalStd9=100	1000.0	996.82	-3.18	-.318	.03181	.000	1
CalStd10=10	10000.	9811.4	-189.	-1.89	.31294	.002	0



Mo 204.598 {464}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000004		Re-Slope:	1.000000	
A1 (Gain):	0.000016		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999989		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.861163				
Predicted MQL:	2.870544				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00102	-.001	.000	-.00000	.000	1
CalStd7=50	50.000	50.712	.712	1.42	.00078	.000	1
CalStd6=20	20.000	20.000	.000	.002	.00031	.000	1
CalStd5=10	10.000	10.474	.474	4.74	.00016	.000	1
CalStd8=100	100.00	102.44	2.44	2.44	.00159	.000	1
CalStd4=5	5.0000	5.5490	.549	11.0	.00008	.000	1
CalStd9=100	1000.0	1008.7	8.67	.867	.01567	.000	1
CalStd10=10	10000.	9987.1	-12.9	-.129	.15518	.001	1

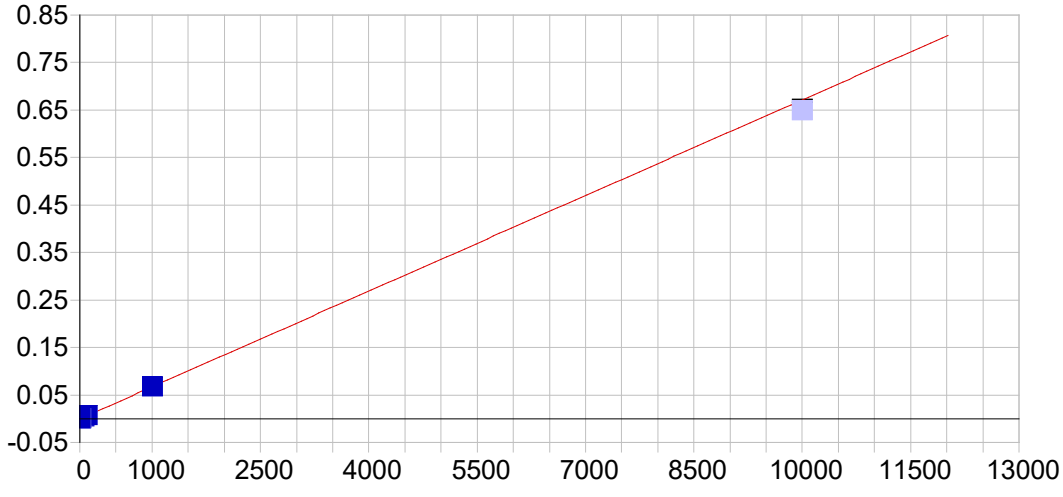


Ni 221.647 {452}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000038	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999954	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.594801		
Predicted MQL:	1.982669		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00625	-.006	.000	.00001	.000	1
CalStd10=10	10000.	9968.4	-31.6	-.316	.37856	.002	1
CalStd8=100	100.00	103.79	3.79	3.79	.00396	.000	1
CalStd9=100	1000.0	1027.8	27.8	2.78	.03904	.000	1

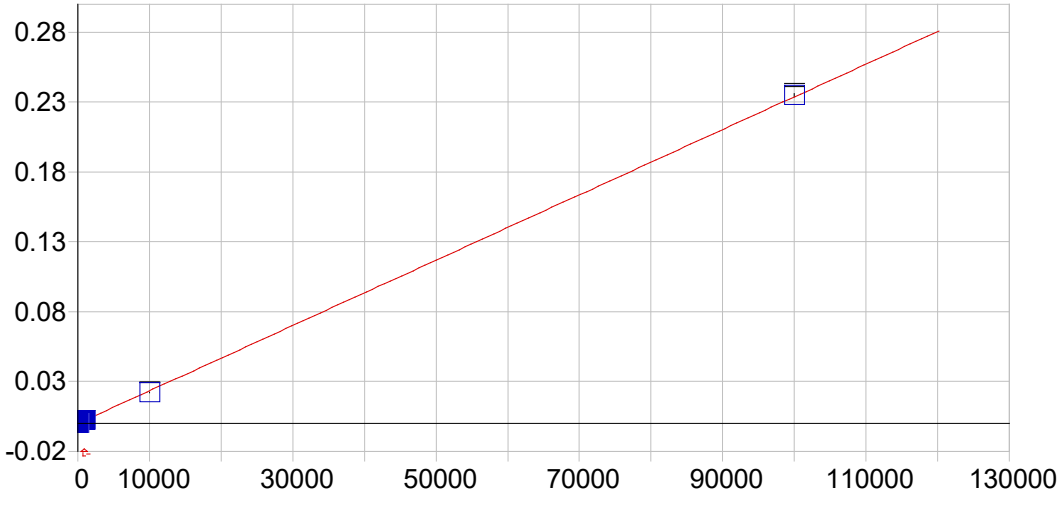


Ni 231.604 {445}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000036	Re-Slope:	1.000000
A1 (Gain):	0.000067	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.380416		
Predicted MQL:	1.268054		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00036	.000	.000	-.00004	.000	1
CalStd7=50	50.000	50.449	.449	.897	.00335	.000	1
CalStd5=10	10.000	9.9029	-.097	-.971	.00063	.000	1
CalStd8=100	100.00	101.28	1.28	1.28	.00676	.000	1
CalStd4=5	5.0000	5.0821	.082	1.64	.00030	.000	1
CalStd9=100	1000.0	998.67	-1.33	-.133	.06694	.000	1
CalStd3=1	1.0000	.61623	-.384	-38.4	.00001	.000	1
CalStd10=10	10000.	9650.5	-349.	-3.49	.64848	.003	0

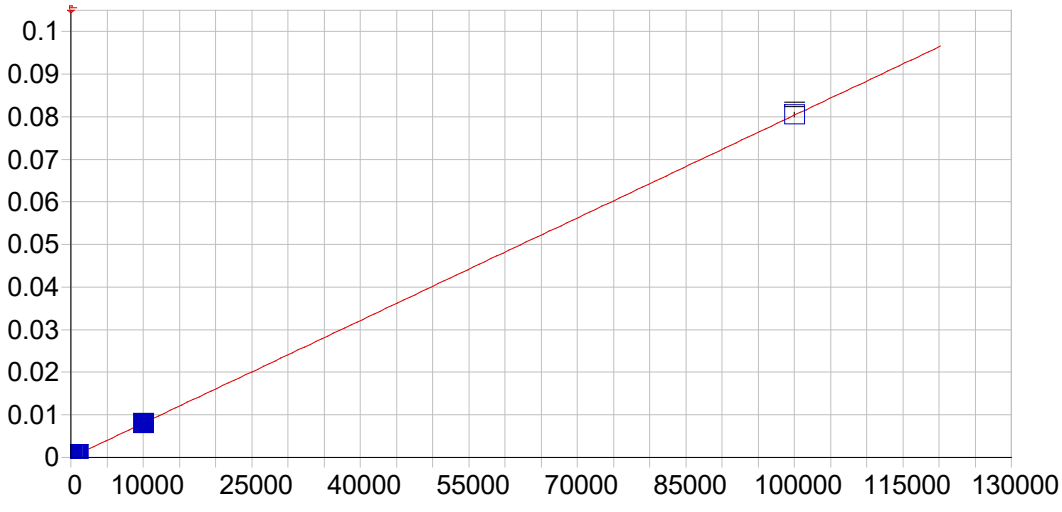


Pb 216.999 {455}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999871	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	8.645143		
Predicted MQL:	28.817142		

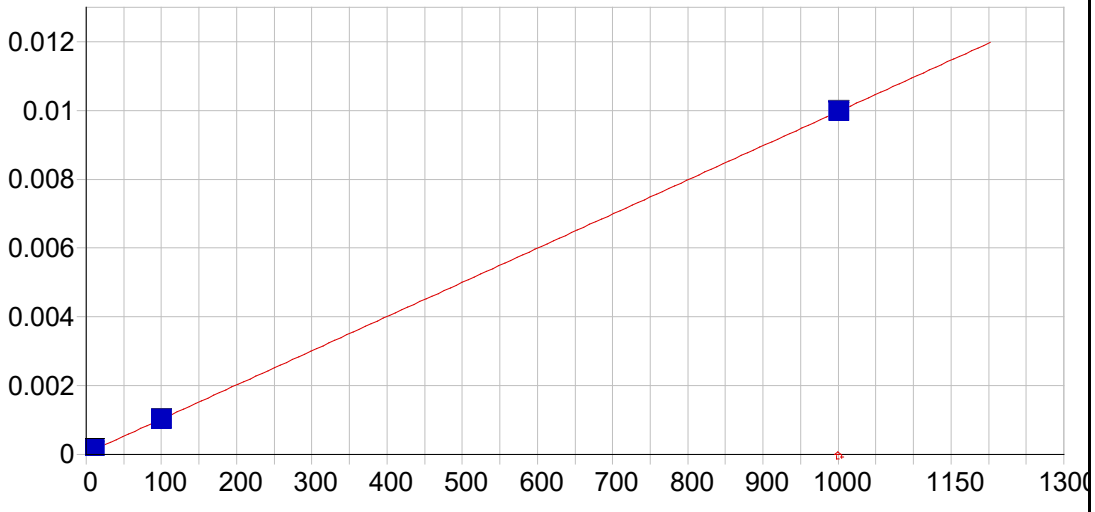
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00336	.003	.000	-.00000	.000	1
CalStd9=100	1000.0	1016.7	16.7	1.67	.00239	.000	1
CalStd10=10	10000.	9500.4	-500.	-5.00	.02221	.000	1
CalStd8=100	100.00	101.60	1.60	1.60	.00024	.000	1
CalStd5=10	10.000	6.7680	-3.23	-32.3	.00001	.000	1
CalStd12=10	100000.	100480.	484.	.484	.23491	.001	1



Pb 220.353 {153}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999978		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	2.083974				
Predicted MQL:	6.946580				

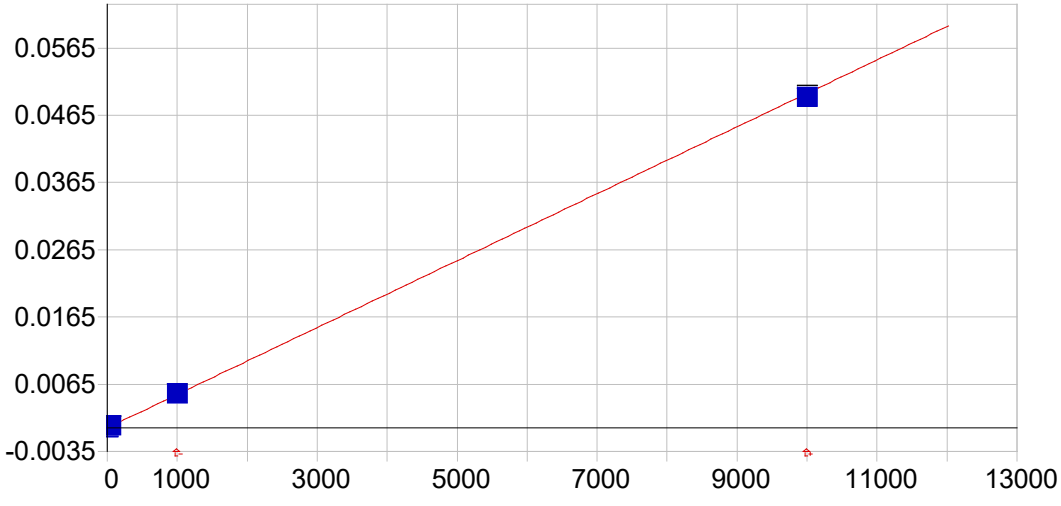
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00342	-.003	.000	.00000	.000	1
CalStd9=100	1000.0	1012.4	12.4	1.24	.00081	.000	1
CalStd10=10	10000.	9794.0	-206.	-2.06	.00787	.000	1
CalStd8=100	100.00	104.05	4.05	4.05	.00009	.000	1
CalStd12=10	100000.	100190.	189.	.189	.08050	.001	1



Pb 220.353 {453}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000033		Re-Slope:	1.000000	
A1 (Gain):	0.000010		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999980		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	2.289979				
Predicted MQL:	7.633263				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00048	.000	.000	.00003	.000	1
CalStd5=10	10.000	9.9700	-.030	-.300	.00013	.000	1
CalStd8=100	100.00	100.16	.163	.163	.00103	.000	1
CalStd4=5	5.0000	4.5278	-.472	-9.44	.00008	.000	1
CalStd9=100	1000.0	1000.3	.340	.034	.00997	.000	1

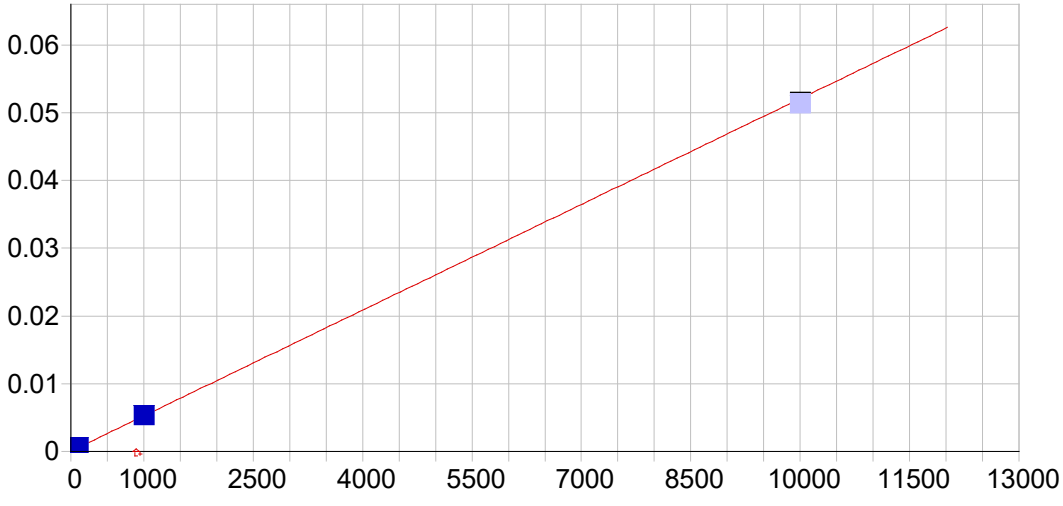


Sb 206.833 {463}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999912	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	2.665159		
Predicted MQL:	8.883863		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.8408	-1.84	.000	-.00001	.000	1
CalStd9=100	1000.0	1012.6	12.6	1.26	.00504	.000	1
CalStd5=10	10.000	9.0451	-.955	-9.55	.00004	.000	1
CalStd7=50	50.000	50.929	.929	1.86	.00025	.000	1
CalStd10=10	10000.	9884.9	-115.	-1.15	.04918	.000	1

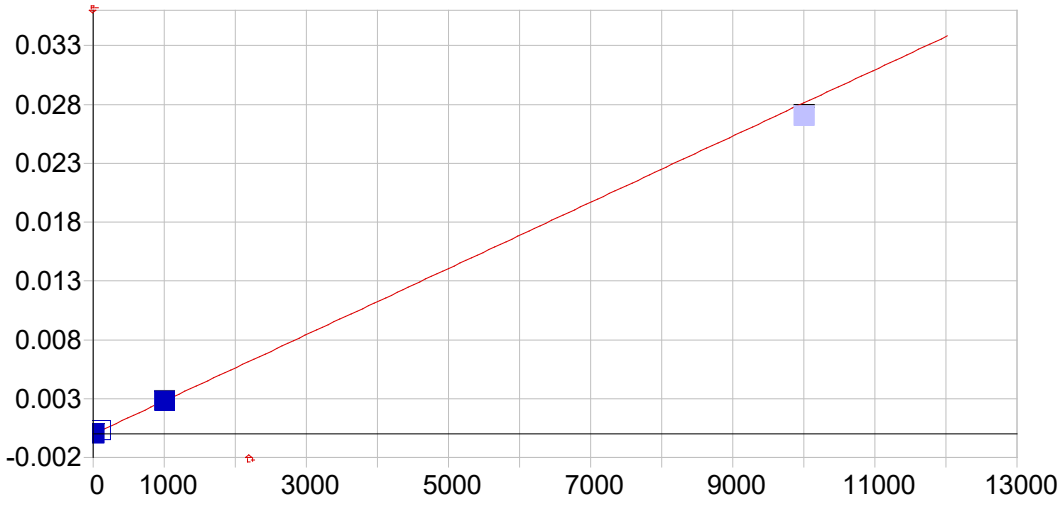


Sb 217.581 {455}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000045	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998125	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.998344		
Predicted MQL:	9.994479		

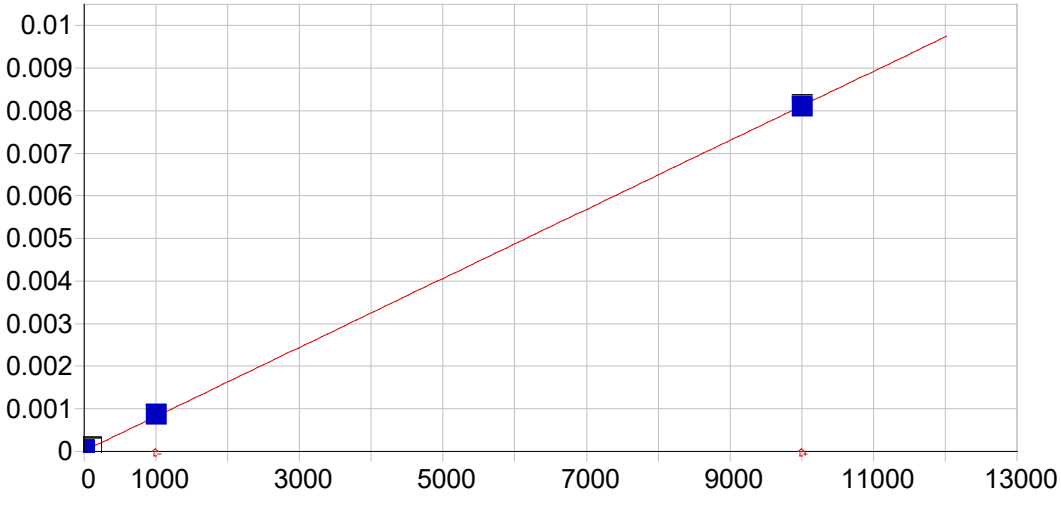
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00555	.006	.000	.00004	.000	1
CalStd9=100	1000.0	1007.5	7.53	.753	.00529	.000	1
CalStd6=20	20.000	18.383	-1.62	-8.08	.00014	.000	1
CalStd5=10	10.000	8.3516	-1.65	-16.5	.00009	.000	1
CalStd8=100	100.00	100.09	.091	.091	.00057	.000	1
CalStd4=5	5.0000	.63998	-4.36	-87.2	.00005	.000	1
CalStd10=10	10000.	9848.2	-152.	-1.52	.05128	.000	0



Se 196.090 {472}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000014		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999897		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	4.864244				
Predicted MQL:	16.214146				

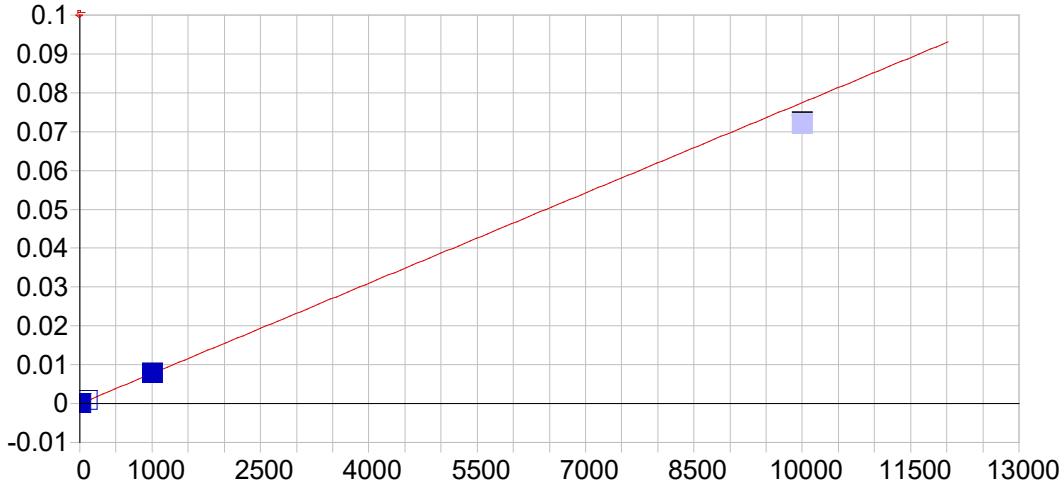
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00114	-.001	.000	-.00001	.000	1
CalStd9=100	1000.0	995.42	-4.58	-.458	.00279	.000	1
CalStd5=10	10.000	10.805	.805	8.05	.00002	.000	1
CalStd8=100	100.00	103.78	3.78	3.78	.00028	.000	1
CalStd10=10	10000.	9606.5	-394.	-3.94	.02702	.000	0



Se 206.279 {463}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000012		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999904		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	20.222843				
Predicted MQL:	67.409477				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00106	-.001	.000	.00001	.000	1
CalStd9=100	1000.0	1043.4	43.4	4.34	.00086	.000	1
CalStd10=10	10000.	9959.4	-40.6	-.406	.00809	.000	1
CalStd8=100	100.00	97.117	-2.88	-2.88	.00009	.000	1

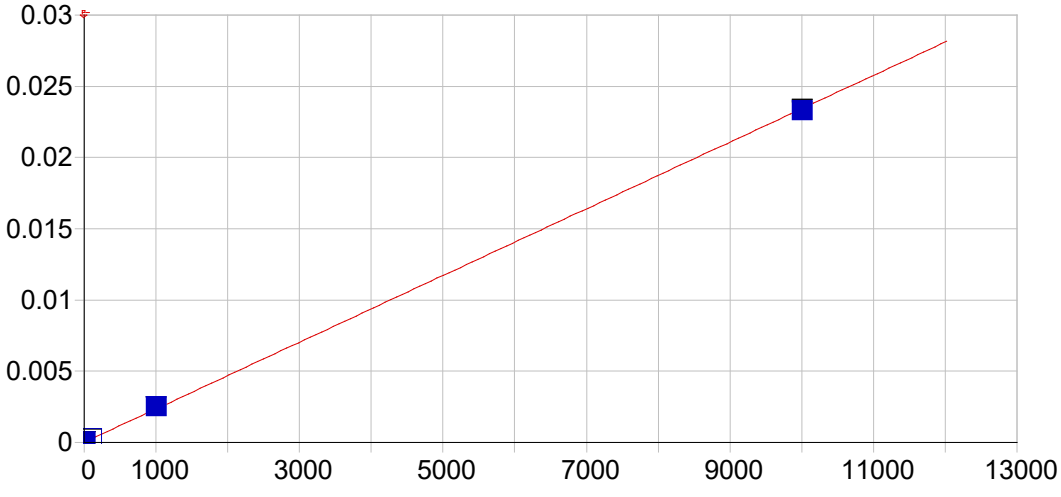


Tl 190.856 {476}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999967	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.815488		
Predicted MQL:	6.051627		

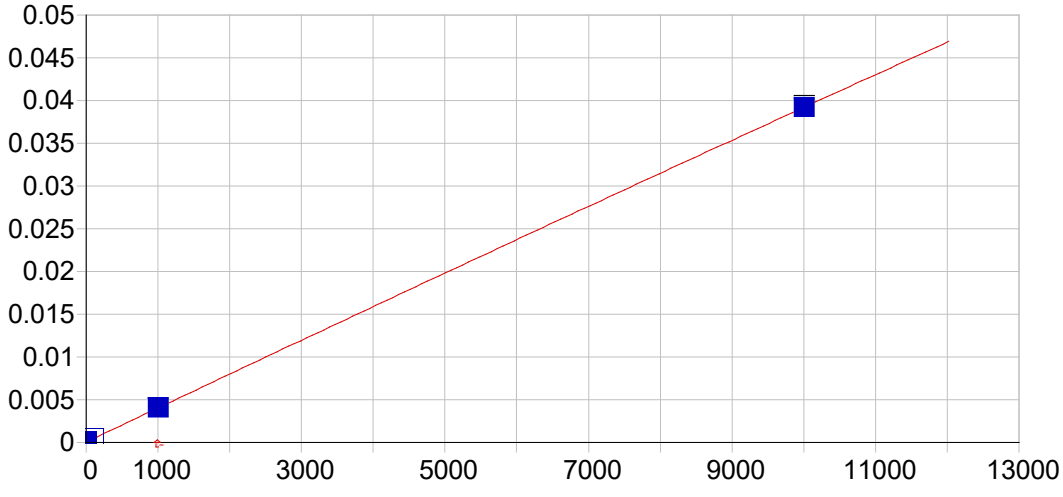
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00022	-.000	.000	-.00001	.000	1
CalStd9=100	1000.0	997.41	-2.59	-.259	.00772	.000	1
CalStd8=100	100.00	102.60	2.60	2.60	.00079	.000	1
CalStd5=10	10.000	9.9899	-.010	-.101	.00007	.000	1
CalStd10=10	10000.	9295.3	-705.	-7.05	.07198	.000	0



Tl 190.856 {477}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000010		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999782		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	3.220942				
Predicted MQL:	10.736474				

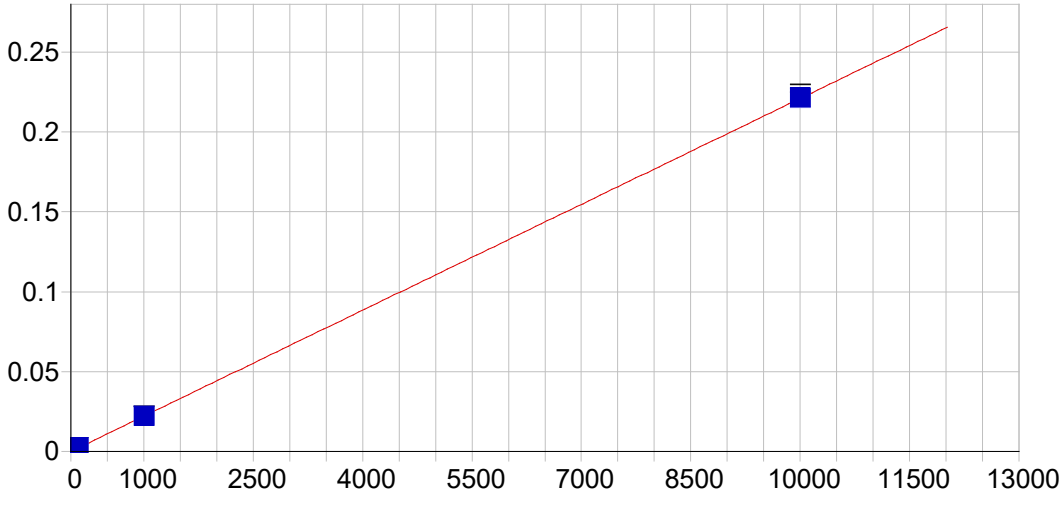
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00170	.002	.000	.00001	.000	1
CalStd9=100	1000.0	1059.8	59.8	5.98	.00249	.000	1
CalStd8=100	100.00	104.26	4.26	4.26	.00025	.000	1
CalStd5=10	10.000	7.3341	-2.67	-26.7	.00003	.000	1
CalStd10=10	10000.	9938.6	-61.4	-.614	.02328	.000	1



V 290.882 {116}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000045		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999981		Status:	OK.	
Std Error of Est:	0.000002				
Predicted MDL:	5.537602				
Predicted MQL:	18.458673				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00543	-.005	.000	.00005	.000	1
CalStd9=100	1000.0	993.27	-6.73	-.673	.00401	.000	1
CalStd10=10	10000.	10001.	.635	.006	.03921	.000	1
CalStd8=100	100.00	106.10	6.10	6.10	.00047	.000	1

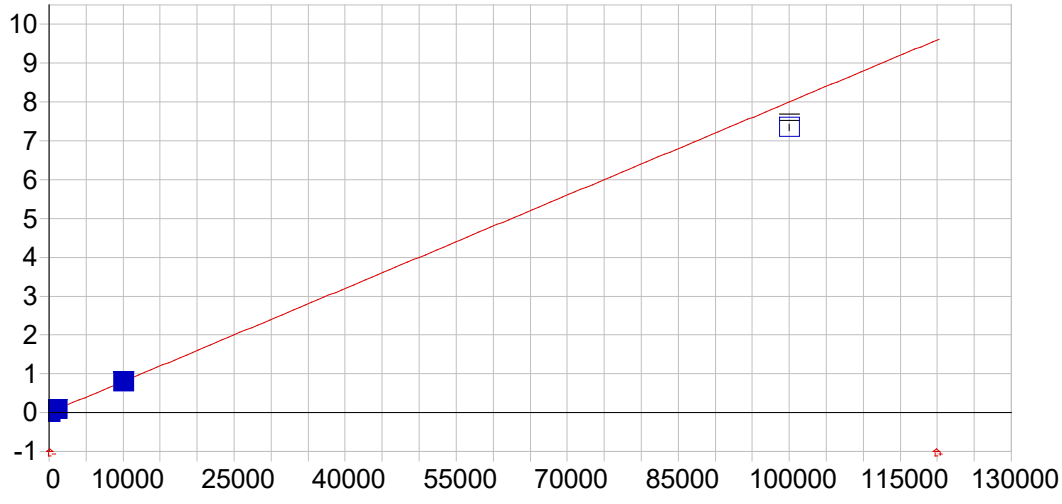


V 292.402 {115}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.339917		
Predicted MQL:	1.133056		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00013	.000	.000	.00002	.000	1
CalStd7=50	50.000	50.084	.084	.168	.00112	.000	1
CalStd9=100	1000.0	988.24	-11.8	-1.18	.02182	.000	1
CalStd6=20	20.000	19.761	-.239	-1.19	.00045	.000	1
CalStd5=10	10.000	10.089	.089	.892	.00024	.000	1
CalStd8=100	100.00	99.880	-.120	-.120	.00222	.000	1
CalStd10=10	10000.	10012.	11.9	.119	.22094	.003	1

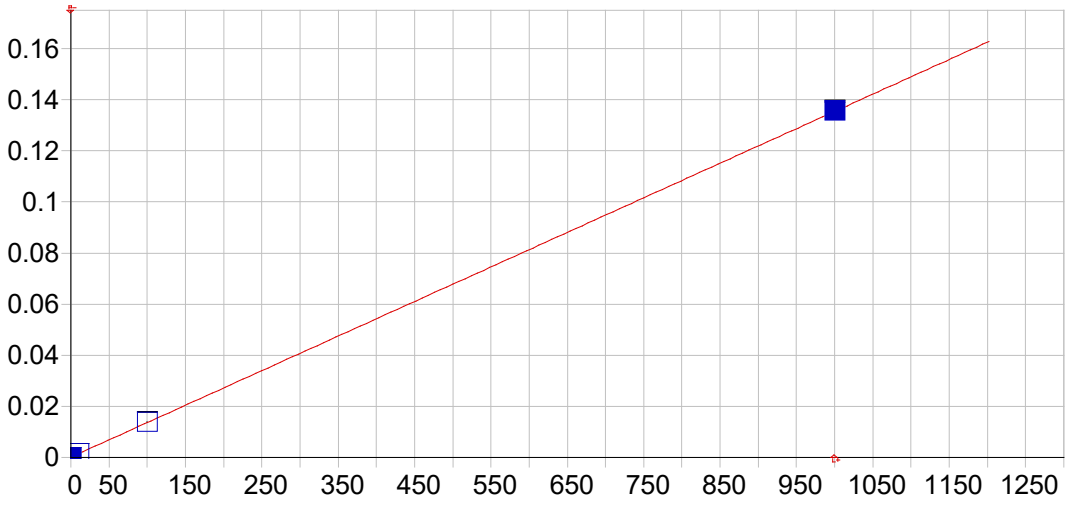


Zn 206.200 {463}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000080	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999834	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	0.189221		
Predicted MQL:	0.630736		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9829.1	-171.	-1.71	.78650	.003	1
Blank	.00000	-.79819	-.798	.000	-.00004	.000	1
CalStd9=100	1000.0	1004.2	4.16	.416	.08037	.000	1
CalStd12=10	100000.	91844.	-8160.	-8.16	7.3488	.084	1
CalStd5=10	10.000	10.079	.079	.786	.00083	.000	1
CalStd8=100	100.00	101.18	1.18	1.18	.00812	.000	1

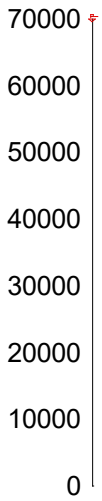


Zn 213.856 {457}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000128	Re-Slope:	1.000000
A1 (Gain):	0.000135	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000130		
Predicted MDL:	0.125295		
Predicted MQL:	0.417649		

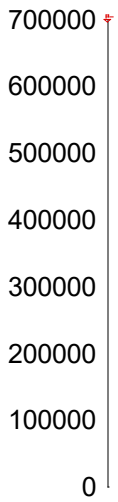
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.83931	-.839	.000	.00001	.000	1
CalStd9=100	1000.0	999.90	-.105	-.010	.13546	.000	1
CalStd5=10	10.000	9.8831	-.117	-1.17	.00147	.000	1
CalStd8=100	100.00	101.06	1.06	1.06	.01380	.000	1



Y 224.306 {450}*

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	61687.	169.	1

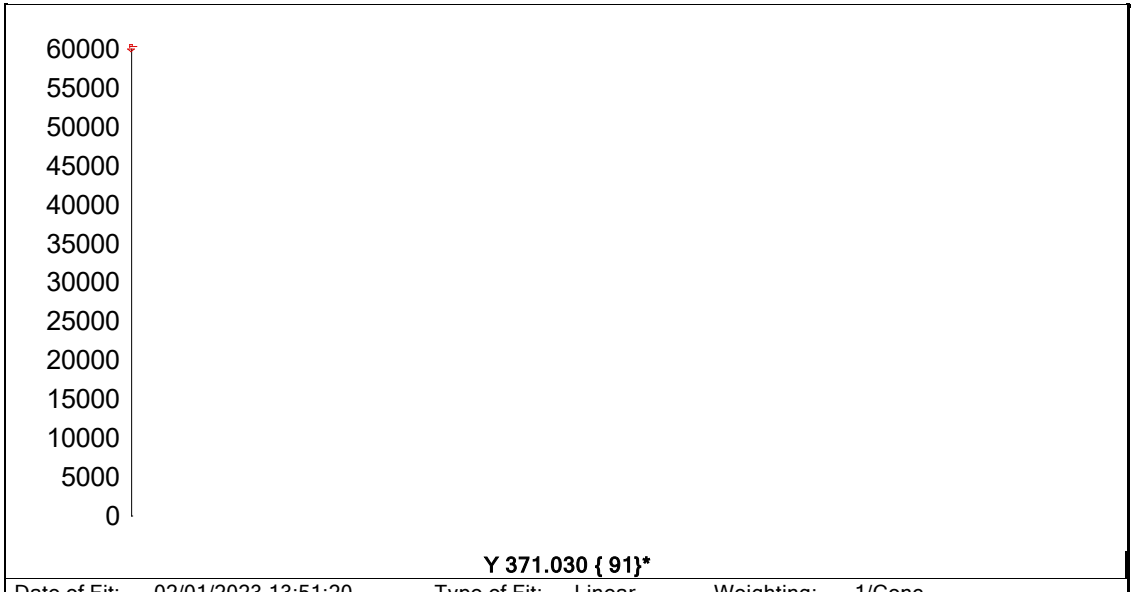


Y 324.228 {104}*

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

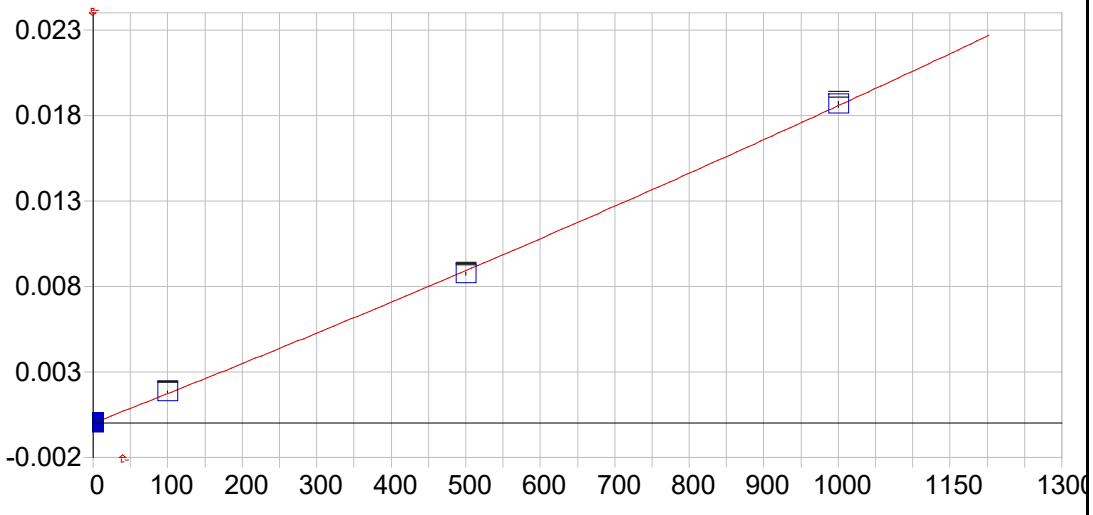
A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	663660.	3550.	1



Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

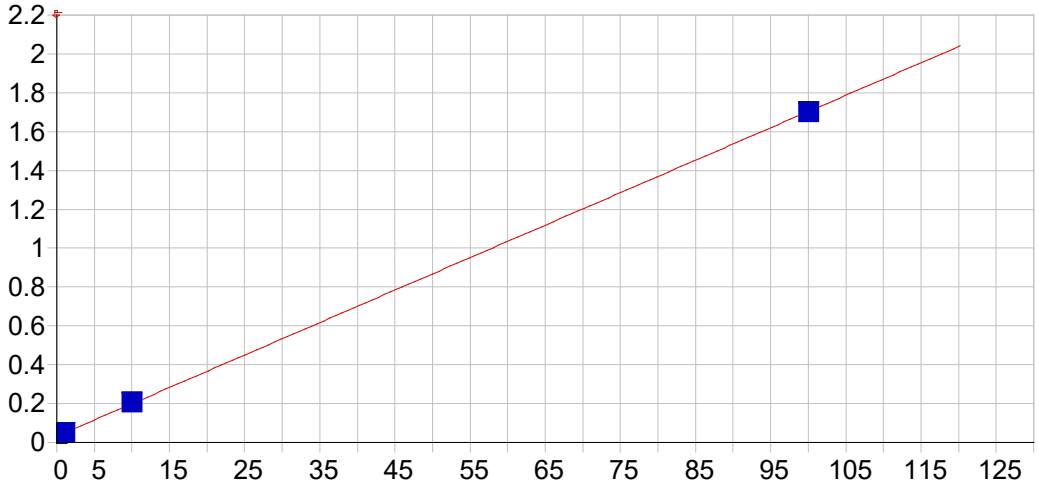
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	52717.	182.	1



Na 330.237 {102}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000015		Re-Slope:	1.000000	
A1 (Gain):	0.000017		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999847		Status:	Warning	Positive Curvature
Std Error of Est:	0.000008				
Predicted MDL:	2.075605				
Predicted MQL:	6.918682				

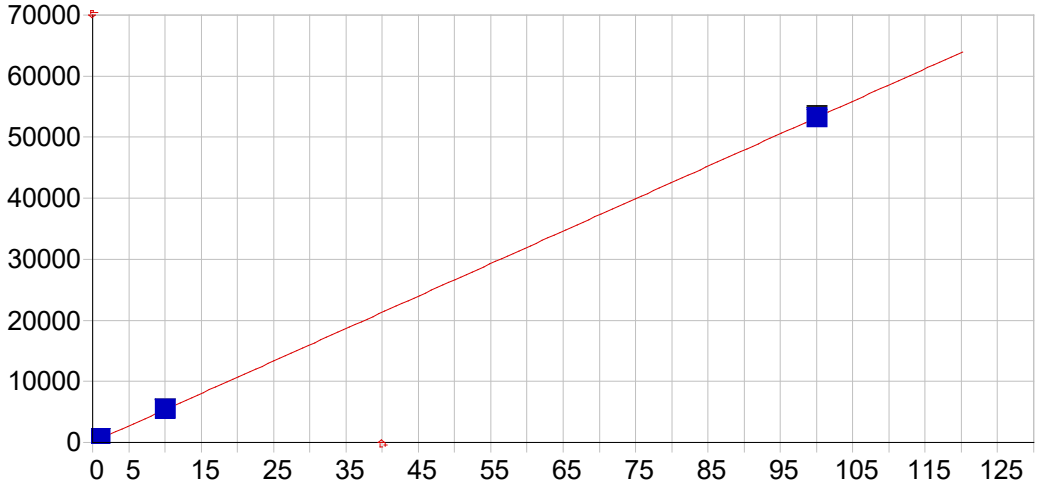
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00411	-.004	.000	.00002	.000	1
CalStd13=10	100.00	105.61	5.61	5.61	.00183	.000	1
CalibStd15=	1000.0	1003.9	3.89	.389	.01865	.000	1
CalStd14=50	500.00	490.54	-9.46	-1.89	.00875	.000	1



Na 588.995 { 57}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.032081		Re-Slope:	1.000000	
A1 (Gain):	0.016714		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999938		Status:	OK.	
Std Error of Est:	0.000087				
Predicted MDL:	0.011511				
Predicted MQL:	0.038370				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	.03208	.000	1
CalStd9=100	1.0000	1.0058	.006	.575	.04889	.000	1
CalStd10=10	10.000	10.352	.352	3.52	.20512	.001	1
CalStd13=10	100.00	99.642	-.358	-.358	1.6976	.005	1

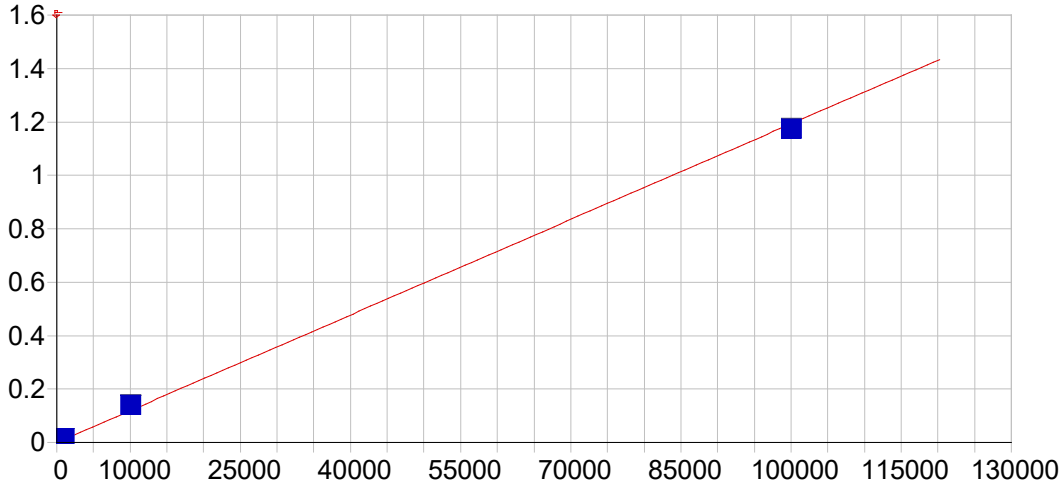


Na 589.592 { 57}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	39.822719	Re-Slope:	1.000000
A1 (Gain):	531.828613	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	1.047523		
Predicted MDL:	0.012160		
Predicted MQL:	0.040533		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	39.801	1.52	1
CalStd9=100	1.0000	1.0336	.034	3.36	589.42	5.01	1
CalStd10=10	10.000	10.082	.082	.823	5400.9	28.5	1
CalStd13=10	100.00	99.884	-.116	-.116	53151.	282.	1

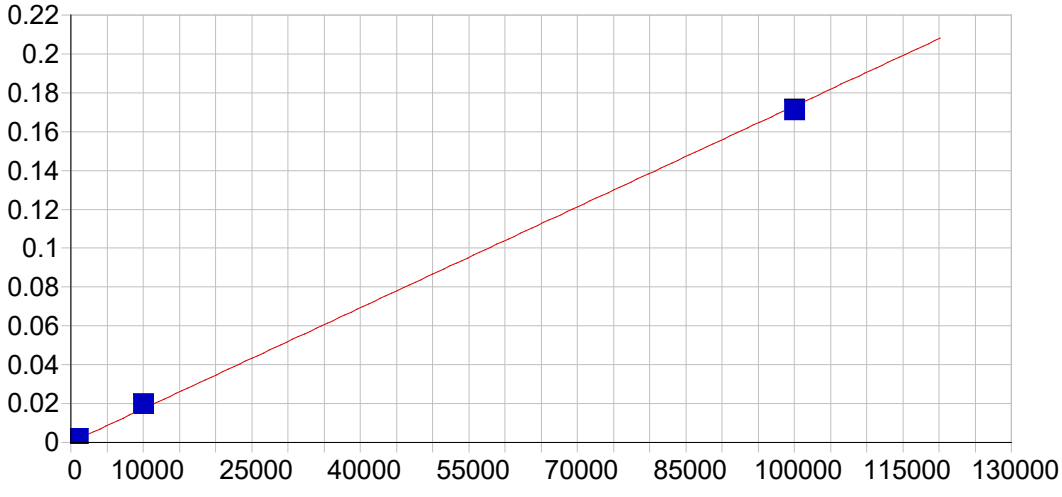


Si 212.412 {458}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000089	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998618	Status:	OK.
Std Error of Est:	0.000296		
Predicted MDL:	1.480071		
Predicted MQL:	4.933568		

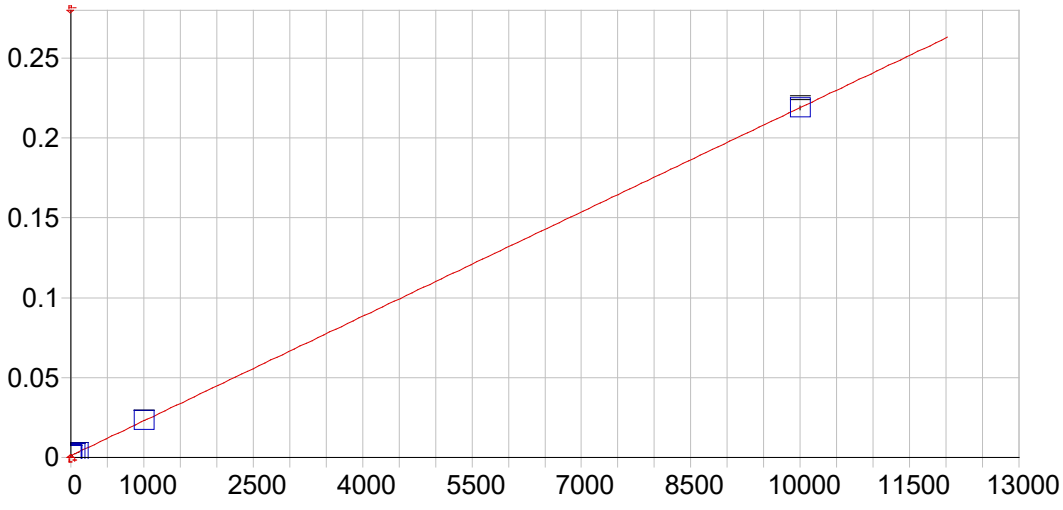
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.25905	-.259	.000	.00009	.000	1
CalStd9=100	1000.0	1113.9	114.	11.4	.01337	.000	1
CalStd10=10	10000.	11625.	1620.	16.2	.13874	.001	1
CalStd13=10	100000.	98261.	-1740.	-1.74	1.1720	.003	1



Si 251.611 {134}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000038		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999082		Status:	OK.	
Std Error of Est:	0.000035				
Predicted MDL:	9.876825				
Predicted MQL:	32.922751				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.17897	-.179	.000	.00004	.000	1
CalStd9=100	1000.0	1058.5	58.5	5.85	.00187	.000	1
CalStd10=10	10000.	11345.	1340.	13.4	.01968	.000	1
CalStd13=10	100000.	98597.	-1400.	-1.40	.17072	.001	1

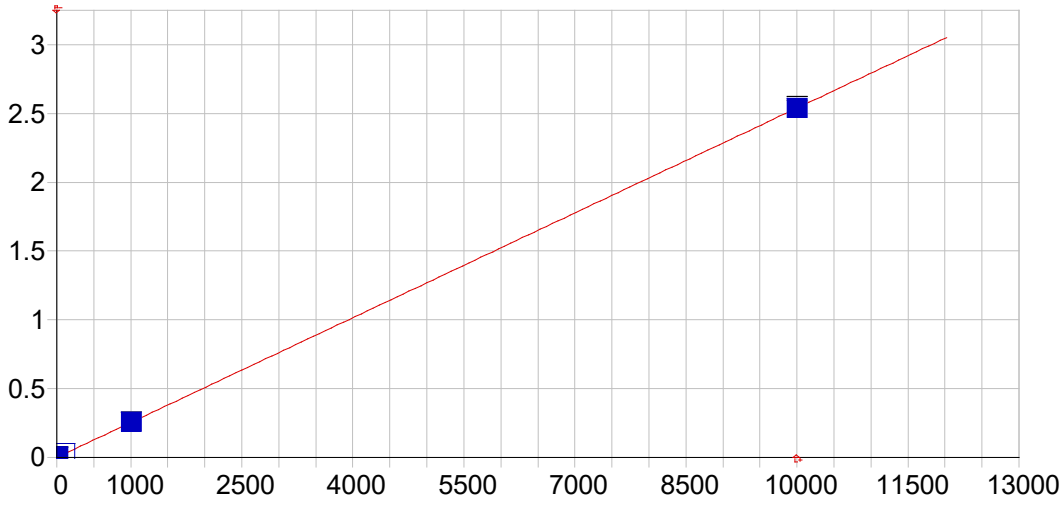


Ti 323.452 {104}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001149	Re-Slope:	1.000000
A1 (Gain):	0.000022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.787073		
Predicted MQL:	5.956911		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00276	-.003	.000	.00115	.000	1
CalStd5=10	10.000	11.457	1.46	14.6	.00140	.000	1
CalStd8=100	100.00	101.26	1.26	1.26	.00336	.000	1
CalStd9=100	1000.0	1008.3	8.29	.829	.02312	.000	1
CalStd10=10	10000.	9985.5	-14.5	-.145	.21877	.001	1
CalStd7=50	50.000	51.705	1.70	3.41	.00228	.000	1
CalStd4=5	5.0000	6.7610	1.76	35.2	.00130	.000	1

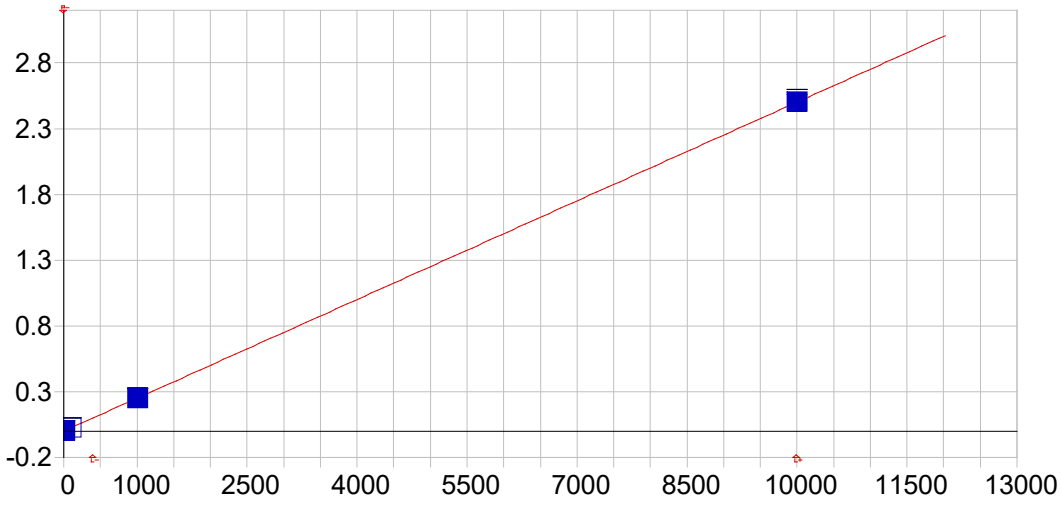


Sr 407.771 { 83}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000230	Re-Slope:	1.000000
A1 (Gain):	0.000254	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.211268		
Predicted MQL:	0.704228		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	.00023	.000	1
CalStd3=1	1.0000	1.0548	.055	5.48	.00050	.000	1
CalStd4=5	5.0000	5.1380	.138	2.76	.00153	.000	1
CalStd5=10	10.000	10.289	.289	2.89	.00284	.000	1
CalStd8=100	100.00	101.70	1.70	1.70	.02605	.000	1
CalStd9=100	1000.0	1008.0	8.02	.802	.25614	.001	1
CalStd10=10	10000.	9989.8	-10.2	-.102	2.5363	.015	1

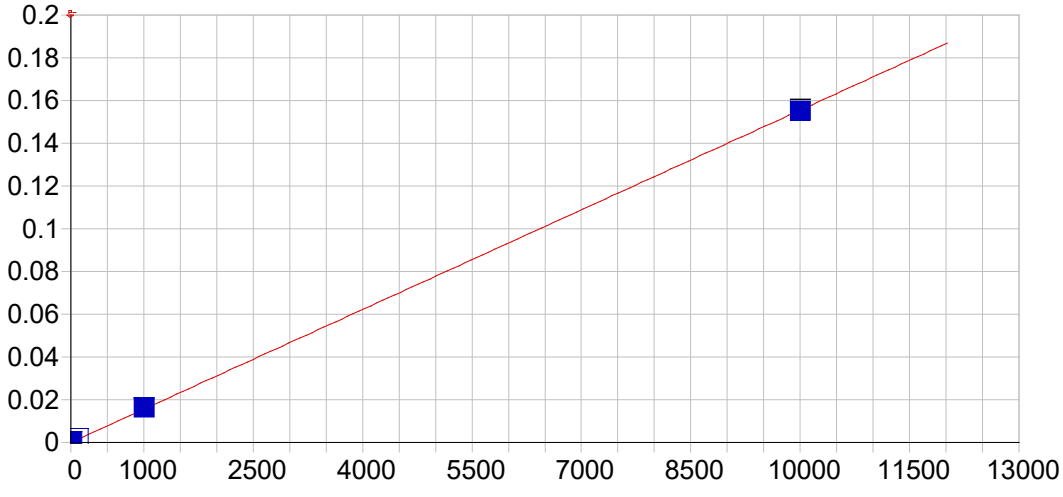


Sr 421.552 { 80}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000065	Re-Slope:	1.000000
A1 (Gain):	0.000250	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.226036		
Predicted MQL:	0.753455		

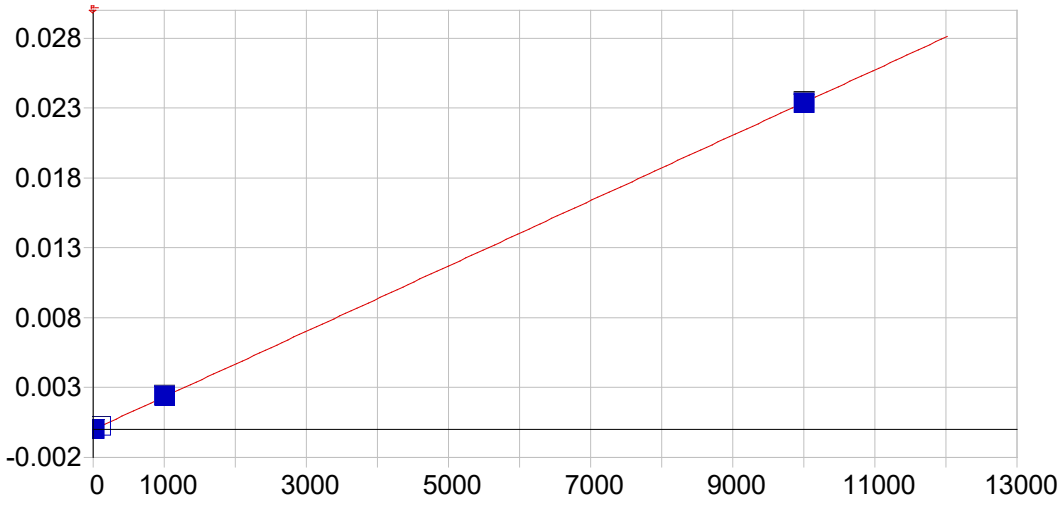
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00018	-.000	.000	-.00006	.000	1
CalStd3=1	1.0000	1.1567	.157	15.7	.00022	.000	1
CalStd4=5	5.0000	5.0578	.058	1.16	.00120	.000	1
CalStd5=10	10.000	10.173	.173	1.73	.00248	.000	1
CalStd8=100	100.00	100.32	.323	.323	.02503	.000	1
CalStd9=100	1000.0	993.89	-6.11	-.611	.24857	.001	1
CalStd10=10	10000.	10005.	5.40	.054	2.5030	.019	1



Sn 189.989 {477}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000021		Re-Slope:	1.000000	
A1 (Gain):	0.000016		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999940		Status:	OK.	
Std Error of Est:	0.000002				
Predicted MDL:	0.745150				
Predicted MQL:	2.483834				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00184	-.002	.000	.00002	.000	1
CalStd10=10	10000.	9965.2	-34.8	-.348	.15497	.001	1
CalStd9=100	1000.0	1028.5	28.5	2.85	.01601	.000	1
CalStd8=100	100.00	105.30	5.30	5.30	.00166	.000	1
CalStd5=10	10.000	11.063	1.06	10.6	.00019	.000	1

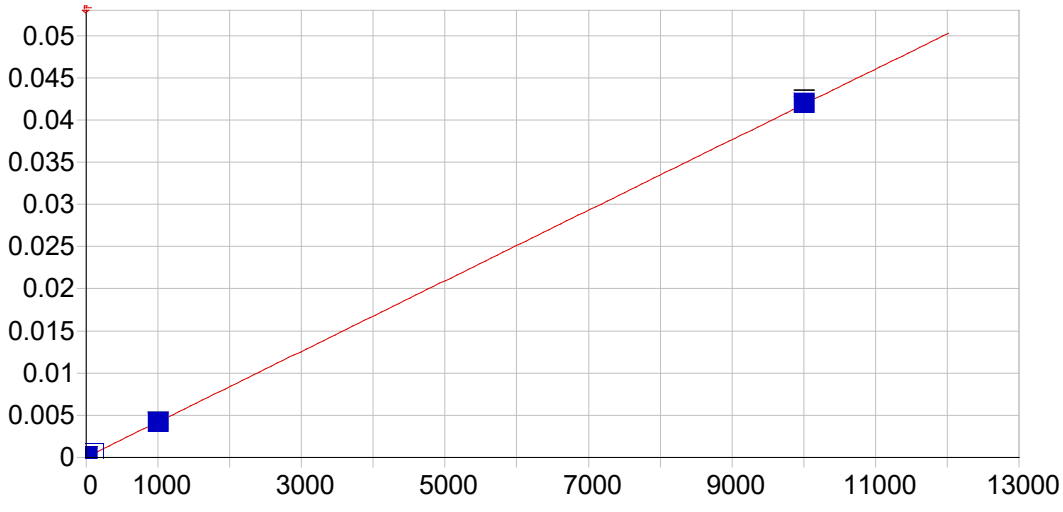


Sn 189.989 {478}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.775909		
Predicted MQL:	9.253030		

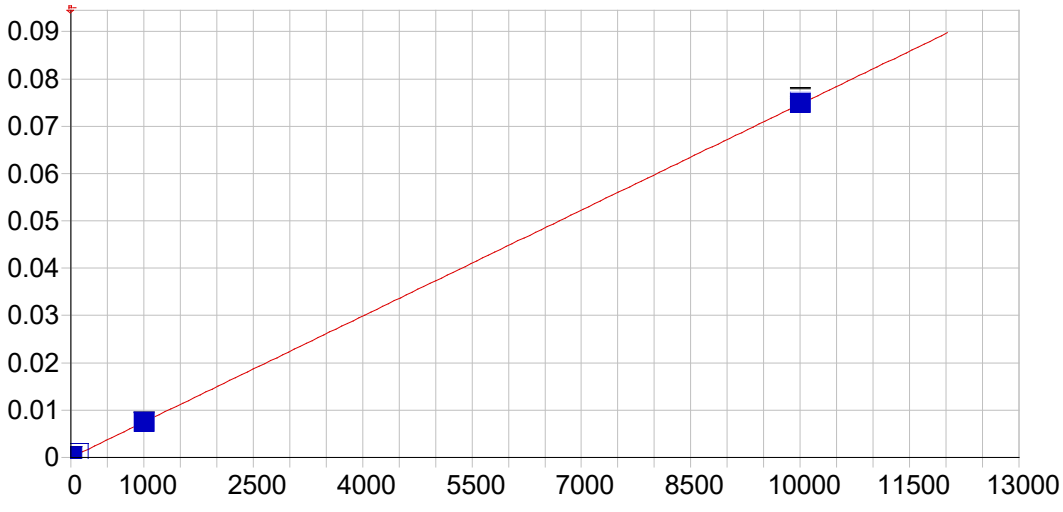
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00034	-.000	.000	.00000	.000	1
CalStd10=10	10000.	9969.0	-31.0	-.310	.02333	.000	1
CalStd9=100	1000.0	1026.5	26.5	2.65	.00240	.000	1
CalStd8=100	100.00	104.95	4.95	4.95	.00025	.000	1
CalStd5=10	10.000	9.6106	-.389	-3.89	.00002	.000	1



B 249.678 {135}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000028		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999977		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.979947				
Predicted MQL:	3.266491				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00014	.000	.000	.00003	.000	1
CalStd8=100	100.00	98.489	-1.51	-1.51	.00044	.000	1
CalStd5=10	10.000	10.202	.202	2.02	.00007	.000	1
CalStd9=100	1000.0	978.98	-21.0	-2.10	.00412	.000	1
CalStd10=10	10000.	10022.	22.3	.223	.04194	.000	1

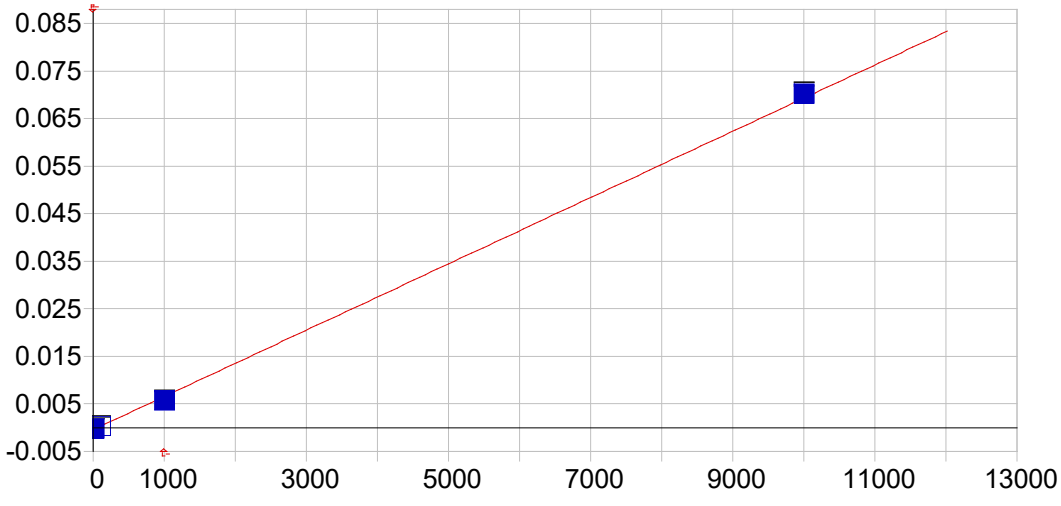


B 249.773 {135}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.443066		
Predicted MQL:	1.476888		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00040	-.000	.000	.00001	.000	1
CalStd8=100	100.00	100.23	.226	.226	.00076	.000	1
CalStd5=10	10.000	10.518	.518	5.18	.00009	.000	1
CalStd9=100	1000.0	984.88	-15.1	-1.51	.00739	.000	1
CalStd10=10	10000.	10014.	14.4	.144	.07505	.001	1

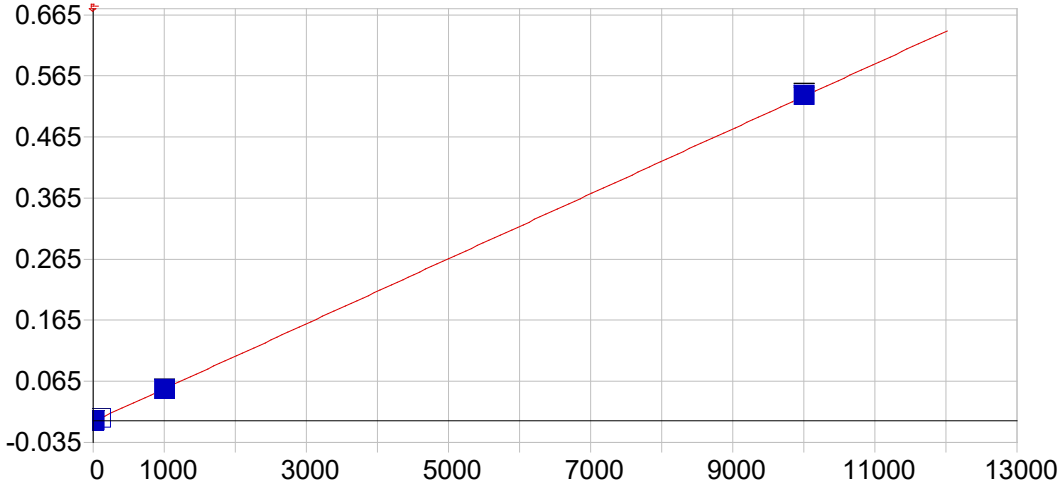


Li 610.353 { 55}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000406	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999064	Status:	OK.
Std Error of Est:	0.000361		
Predicted MDL:	27.994540		
Predicted MQL:	93.315134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	7.7364	7.74	.000	-.00035	.000	1
CalStd5=10	10.000	22.592	12.6	126.	-.00025	.000	1
CalStd8=100	100.00	92.136	-7.86	-7.86	.00024	.000	1
CalStd9=100	1000.0	853.22	-147.	-14.7	.00554	.000	1
CalStd10=10	10000.	10116.	116.	1.16	.07014	.000	1

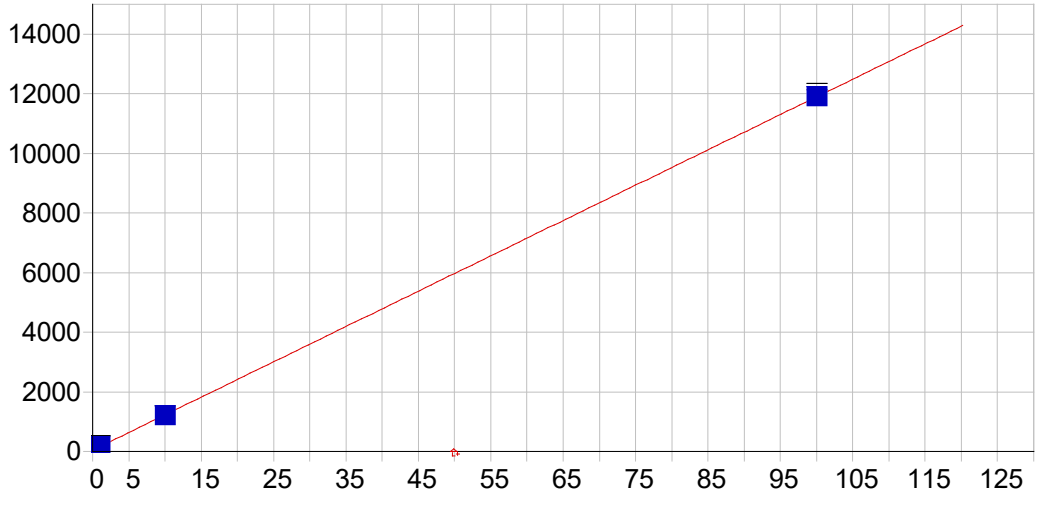


Li 670.776 { 50}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000289	Re-Slope:	1.000000
A1 (Gain):	0.000053	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	2.390535		
Predicted MQL:	7.968449		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00141	-.001	.000	-.00029	.000	1
CalStd5=10	10.000	11.623	1.62	16.2	.00033	.000	1
CalStd8=100	100.00	99.973	-.027	-.027	.00503	.000	1
CalStd9=100	1000.0	976.64	-23.4	-2.34	.05165	.000	1
CalStd10=10	10000.	10022.	21.8	.218	.53265	.003	1

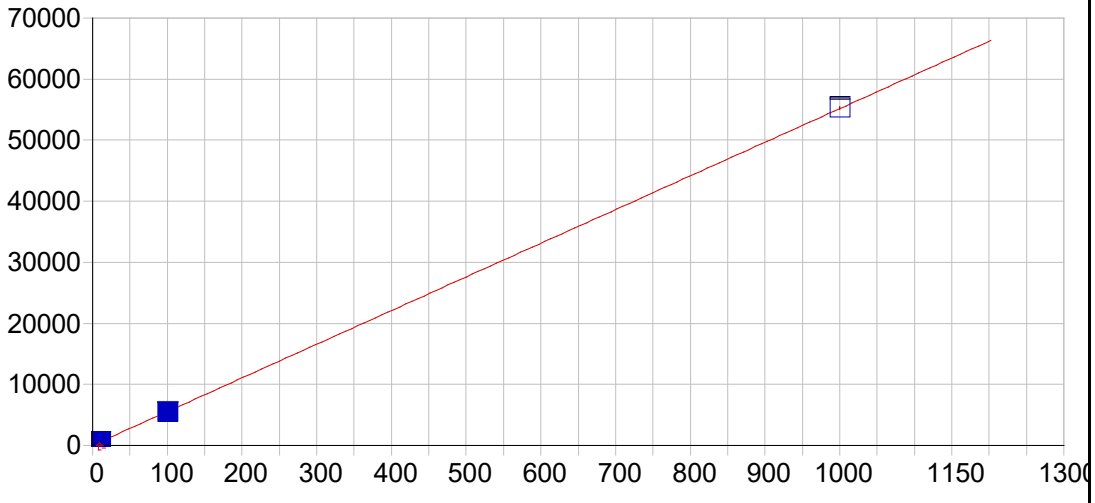


K 766.490 { 44}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	43.715623	Re-Slope:	1.000000
A1 (Gain):	118.543345	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	33.290933		
Predicted MDL:	0.060378		
Predicted MQL:	0.201260		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.15499	.155	.000	62.089	1.95	1
CalStd9=100	1.0000	1.1466	.147	14.7	179.65	5.74	1
CalStd10=10	10.000	9.6665	-.333	-3.33	1189.7	6.16	1
CalStd13=10	100.00	100.03	.032	.032	11903.	99.4	1

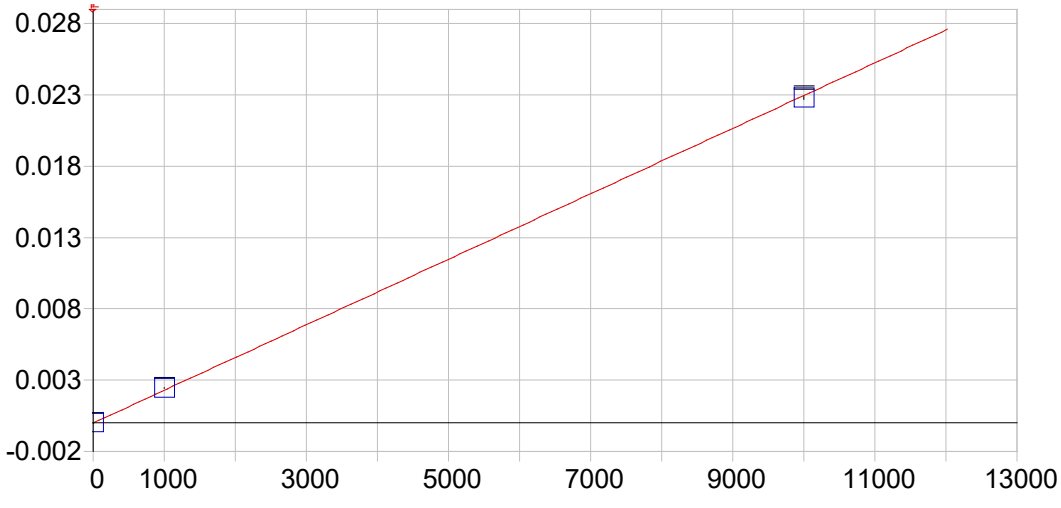


K 769.896 { 44}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	37.452141	Re-Slope:	1.000000
A1 (Gain):	55.133828	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999959	Status:	OK.
Std Error of Est:	0.677367		
Predicted MDL:	0.096015		
Predicted MQL:	0.320049		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00018	-.000	.000	37.442	3.96	1
CalStd10=10	10.000	9.7961	-.204	-2.04	576.61	2.15	1
CalibStd15=	1000.0	1001.8	1.84	.184	55273.	202.	1
CalStd13=10	100.00	98.144	-1.86	-1.86	5439.1	37.9	1
CalStd9=100	1.0000	1.2206	.221	22.1	104.65	5.20	1

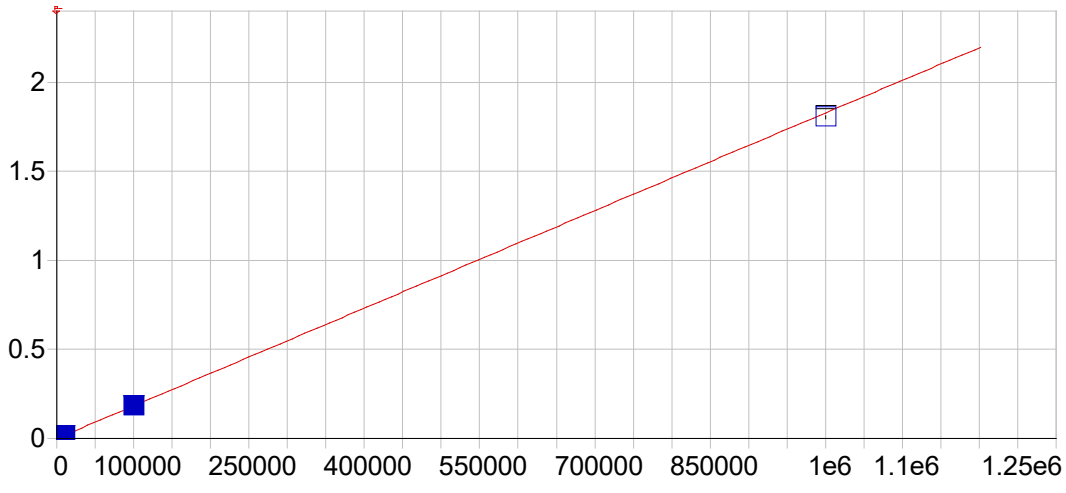


P 177.495 {489}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999753	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	3.031466		
Predicted MQL:	10.104885		

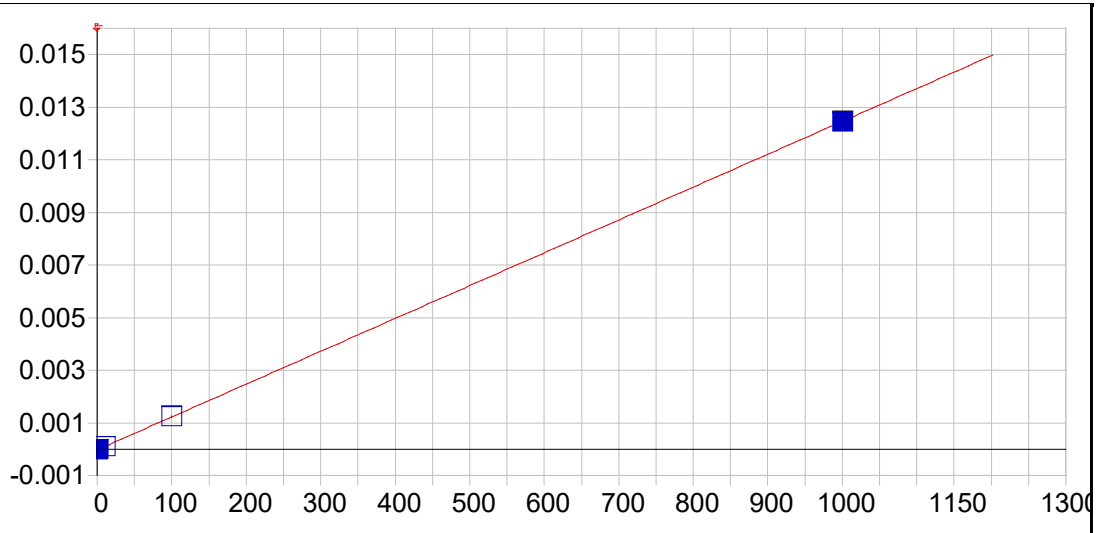
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.06319	-.063	.000	-.00001	.000	1
CalStd10=10	10000.	9929.8	-70.2	-.702	.02280	.000	1
CalStd9=100	1000.0	1070.2	70.2	7.02	.00245	.000	1



S 182.034 {485}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000053		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999980		Status:	OK.	
Std Error of Est:	0.000019				
Predicted MDL:	5.076545				
Predicted MQL:	16.921816				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.17358	-.174	.000	.00005	.000	1
CalStd9=100	1000.0	1134.3	134.	13.4	.00213	.000	1
CalStd10=10	10000.	10456.	456.	4.56	.01921	.000	1
CalibStd15=	1000000.	986820.	-13200.	-1.32	1.8040	.009	1
CalStd13=10	100000.	99214.	-786.	-.786	.18144	.000	1

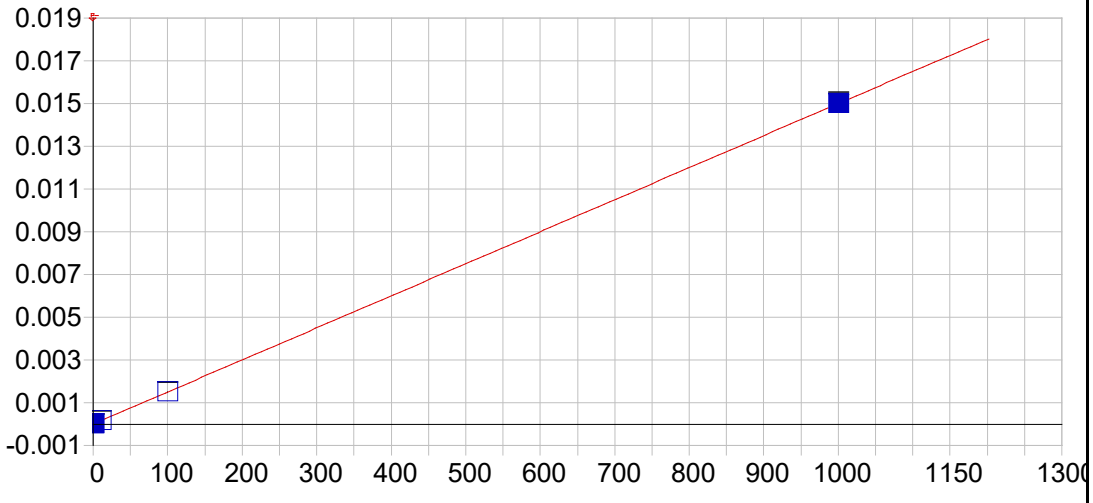


Hg 184.950 {482}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000027	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.779853		
Predicted MQL:	2.599511		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00004	.000	.000	-.00003	.000	1
CalStd9=100	1000.0	998.66	-1.34	-.134	.01244	.000	1
CalStd3=1	1.0000	.96733	-.033	-3.27	-.00001	.000	1
CalStd5=10	10.000	9.7694	-.231	-2.31	.00010	.000	1
CalStd8=100	100.00	101.60	1.60	1.60	.00124	.000	1

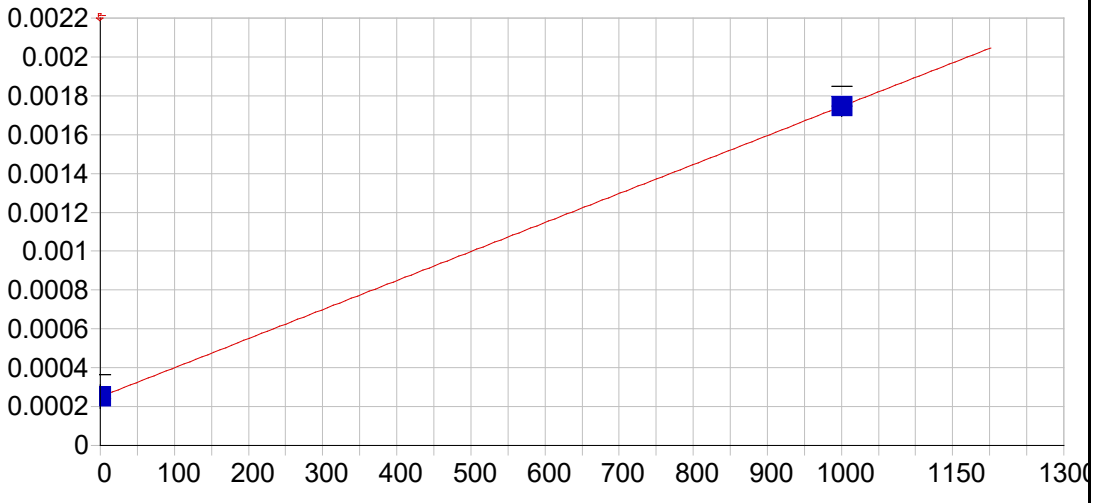


Hg 194.227 {473}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999595	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.756213		
Predicted MQL:	2.520710		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00095	.001	.000	.00000	.000	1
CalStd9=100	1000.0	1000.6	.640	.064	.01501	.000	1
CalStd3=1	1.0000	.05205	-.948	-94.8	.00000	.000	1
CalStd5=10	10.000	9.9866	-.013	-.134	.00015	.000	1
CalStd8=100	100.00	100.32	.322	.322	.00151	.000	1



Ce 404.076 { 83}

Date of Fit:	02/01/2023 13:51:20	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000251		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	1.000000		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	36.042444				
Predicted MQL:	120.141480				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00025	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00175	.000	1

Sample Name: Blank Acquired: 01/31/2023 12:37:15 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.050**	**.000**	**.000**	**.000**	**.000**	**.000**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	16.4	17.3	16.9	37.0	8.35	121.	.155	30.5	26.8	42.5	86.9	5650.	41.5

Elem	Co2388	Cr2677	Cu2230	Cu3247	Cu3273	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	73.8	10.9	49.3	21.2	36.2	8.28	162.	355.	97.8	3.48	25.2	1380.	155.

Elem	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	349.	14.4	325.	64.6	78.8	26.3	105.	94.8	124.	21.1	21.9	41.2	55.9

Elem	Na3302	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**39.8**	**62.1**	**37.4**
Stddev	.000	1.5	2.0	4.0
%RSD	117.	3.81	3.15	10.6

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**61687.**	**663660.**	**52717.**
Stddev	169.	3546.	182.
%RSD	.27438	.53431	.34566

Sample Name: CalStd2=0.5 Acquired: 01/31/2023 12:44:39 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be3131	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	12.9	38.0	161.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60881.**	**661820.**	**52155.**
Stddev	165.	6839.	114.
%RSD	.27122	1.0334	.21953

Sample Name: CalStd3=1 Acquired: 01/31/2023 12:52:03 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Be3131	Cd2265	Cd2288	Co2286	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	20.8	22.3	10.9	116.	26.2	732.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60596.**	**666680.**	**51651.**
Stddev	94.	3359.	185.
%RSD	.15444	.50381	.35745

Sample Name: CalStd4=5 Acquired: 01/31/2023 12:59:28 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be3131	Cd2265	Cd2288	Co2286	Cr2677	Cu3273	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	156.	5.46	2.35	6.39	5.07	4.52	3.19	16.1	1.11	4.02	12.8	1.39	20.5

Elem	Sb2175
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	14.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60570.**	**660970.**	**51701.**
Stddev	135.	4455.	192.
%RSD	.22238	.67402	.37143

Sample Name: CalStd5=10 Acquired: 01/31/2023 13:06:53 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3131	Cd2265	Cd2288	Co2286	Cr2677	Cu2230	Cu3273	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	12.2	7.09	45.0	5490.	1.63	4.70	2.46	5.47	1.63	2.74	4.88	30.7	.771

Elem	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.58	6.77	3.15	144.	24.5	16.7	8.00	42.0	1.39	4.52	1.03	1.22

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60779.**	**663770.**	**51789.**
Stddev	141.	4503.	235.
%RSD	.23203	.67845	.45426

Sample Name: CalStd6=20 Acquired: 01/31/2023 13:14:16 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Cu3273	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**-.000**	**.001**	**.001**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	2.31	92.8	.619	1.78	5.27	8.05	1.49

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**61013.**	**662580.**	**51839.**
Stddev	217.	4356.	186.
%RSD	.35602	.65743	.35794

Sample Name: CalStd7=50 Acquired: 01/31/2023 13:21:38 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2677	Cu3273	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.004**	**.000**	**.004**	**.001**	**.000**	**.002**	**.002**	**.001**	**.003**	**.000**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	8.02	21.4	.851	3.62	.543	.340	25.6	.412	1.45	1.91	1.38	2.42	.465

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60561.**	**656160.**	**51580.**
Stddev	197.	3920.	160.
%RSD	.32578	.59739	.31093

Sample Name: CalStd8=100 Acquired: 01/31/2023 13:28:51 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Co2388	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.001**	**.000**	**.000**	**.004**	**.057**	**.007**	**.019**	**.008**	**.001**	**.007**	**.001**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.790	.806	2.34	5.10	.147	.116	.889	.299	.629	1.52	.398	.579	.586

Elem	Cu2230	Cu3247	Cu3273	Mg2802	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.000**	**.000**	**.014**	**.005**	**.003**	**.002**	**.007**	**.000**	**.001**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.879	2.89	4.67	.669	.641	.648	.851	.333	2.07	1.05	2.24	1.86	14.1

Elem	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**.002**	**.008**	**.014**
Stddev	.000	.000	.000	.000	.000
%RSD	1.73	1.41	.799	.355	.475

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60667.**	**657930.**	**51777.**
Stddev	127.	5688.	165.
%RSD	.21000	.86452	.31782

Sample Name: CalStd9=1000 Acquired: 01/31/2023 13:35:57 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286	Co2388	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.008**	**.003**	**.003**	**.001**	**.042**	**.067**	**.002**	**.182**	**.077**	**.010**	**.073**	**.005**	**.011**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.274	2.07	.414	.553	.311	.311	1.22	.093	.457	.611	.201	.633	.793

Elem	Cu2230	Cu3247	Cu3273	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.017**	**.004**	**.005**	**.001**	**.003**	**.007**	**.000**	**.141**	**.046**	**.035**	**.032**	**.016**	**.067**
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000
%RSD	.318	.748	.553	.657	.834	.262	2.85	.490	.418	.182	.399	.318	.287

Elem	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Na5895	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.010**	**.005**	**.005**	**.003**	**.001**	**.008**	**.004**	**.022**	**.080**	**.135**	**589.**	**180.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	5.	6.
%RSD	.574	.307	.484	.409	.658	1.67	.183	.983	.370	.228	.259	.850	3.20

Elem	K_7698
Units	Cts/S
Avg	**105.**
Stddev	5.
%RSD	4.97

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60976.**	**665120.**	**52341.**
Stddev	184.	3212.	150.
%RSD	.30128	.48298	.28587

Sample Name: CalStd10=10000 Acquired: 01/31/2023 13:42:27 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2677	Cu2230	Cu3247	Cu3273	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.027**	**.015**	**.401**	**.722**	**.019**	**1.86**	**.713**	**.049**	**.111**	**.161**	**.041**	**.051**	**.014**
Stddev	.000	.000	.002	.003	.000	.02	.003	.001	.001	.001	.000	.000	.000
%RSD	1.62	.302	.422	.418	.673	1.18	.485	1.14	.855	.464	.348	.670	1.17

Elem	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.025**	**.064**	**.002**	**1.31**	**.448**	**.345**	**.313**	**.155**	**.648**	**.022**	**.049**	**.051**	**.027**
Stddev	.000	.001	.000	.01	.005	.003	.002	.001	.003	.000	.000	.000	.000
%RSD	.730	.873	.477	.830	1.01	.738	.494	.459	.503	.651	.462	.459	.426

Elem	Se2062	Tl1908	V_2908	V_2924	Zn2062	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.008**	**.072**	**.039**	**.221**	**.786**	**5400.**	**1190.**	**577.**
Stddev	.000	.000	.000	.003	.003	28.	6.	2.
%RSD	.588	.499	.536	1.14	.413	.527	.518	.372

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**59574.**	**635930.**	**51452.**
Stddev	244.	7789.	258.
%RSD	.40985	1.2247	.50144

Sample Name: CalStd12=100K Acquired: 01/31/2023 13:49:16 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cu3247	Cu3273	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.431**	**.537**	**3.50**	**.235**	**7.35**
Stddev	.001	.003	.02	.001	.08
%RSD	.300	.518	.540	.511	1.15

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**59300.**	**647320.**	**52023.**
Stddev	151.	4827.	235.
%RSD	.25494	.74562	.45246

Sample Name: CalStd13=100000 Acquired: 01/31/2023 13:57:13 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790	Na3302	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.184**	**.135**	**.244**	**.633**	**.021**	**.002**	**53200.**	**11900.**	**5440.**
Stddev	.001	.001	.001	.002	.000	.000	282.	99.	38.
%RSD	.299	.528	.378	.324	.436	1.77	.531	.835	.697

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58068.**	**624150.**	**51660.**
Stddev	126.	4725.	211.
%RSD	.21685	.75696	.40916

Sample Name: CalStd14=500000 Acquired: 01/31/2023 14:04:41 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.38**	**.870**	**1.16**	**3.02**	**.009**
Stddev	.01	.008	.01	.03	.000
%RSD	.790	.977	.743	.855	1.03

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**53131.**	**49222.**
Stddev	136.	214.
%RSD	.25581	.43495

Sample Name: CalibStd15=1000k Acquired: 01/31/2023 14:12:26 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790	Na3302	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.89**	**1.78**	**2.30**	**5.88**	**.213**	**.019**	**55300.**
Stddev	.03	.01	.01	.11	.001	.000	202.
%RSD	.991	.354	.517	1.84	.412	.822	.365

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**49577.**	**47797.**
Stddev	160.	203.
%RSD	.32370	.42405

Sample Name: Ag 1000 Ba 20000 Acquired: 01/31/2023 14:20:32 Type: Cal
Method: DOD Calibration Updated 060614(v5474) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba4934
Units	Cts/S
Avg	**1.45**
Stddev	.00
%RSD	.210

Int. Std.	Y_3242
Units	Cts/S
Avg	**664480.**
Stddev	4145.
%RSD	.62376

Int. Std.	Y_3710
Units	Cts/S
Avg	**52512.**
Stddev	98.
%RSD	.18714

Sample Name: icv Acquired: 01/31/2023 14:42:30 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Ba4934	Be3131	Ca3158	Cd2265	Cd2288	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.7**	**11100.**	**2080.**	**2090.**	**1980.**	**1940.**	**49.1**	**9930.**	**51.3**	**48.1**	**503.**	**201.**
Stddev	1.2	46.	15.	7.	9.	15.	.4	52.	.4	1.1	3.	2.
%RSD	2.51	.412	.710	.335	.470	.757	.909	.518	.783	2.22	.523	1.12
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Cu2230	Cu3273	Fe2343	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**240.**	**231.**	**4970.**	**5100.**	**9840.**	**492.**	**546.**	**501.**	**488.**	**509.**	**2000.**	**2040.**
Stddev	1.	7.	44.	17.	96.	5.	3.	3.	5.	3.	5.	33.
%RSD	.612	3.10	.879	.326	.976	.983	.589	.511	1.00	.576	.256	1.64
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**1880.**	**502.**	**528.**	**522.**	**102.**	**95.8**
Stddev	8.	4.	3.	3.	2.	.4
%RSD	.452	.889	.584	.548	1.97	.439
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: icv Acquired: 01/31/2023 14:42:30 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58041.**	**637660.**	**51449.**
Stddev	184.	4617.	184.
%RSD	.31652	.72399	.35733

Sample Name: ICVLL Acquired: 01/31/2023 14:49:31 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **53.7**	**1330.**	**1230.**	**67.9**	**34.0**	**12.9**	**1650.**	**17.2**	**33.6**	**32.1**	**33.9**	**32.2**	**1030.**
Stddev	.2	4.	26.	2.8	.3	.3	5.	.2	.2	.2	.7	11.5	9.
%RSD	.436	.325	2.13	4.12	.902	2.48	.277	1.44	.582	.575	1.93	35.8	.842
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	30.0												
Range	30.0%												

Elem	Fe2599	Mg2790	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**1020.**	**1690.**	**1640.**	**32.7**	**35.1**	**32.5**	**29.5**	**65.1**	**70.5**	**62.5**	**33.2**	**31.9**	**6.40**
Stddev	10.	20.	28.	.2	.5	.3	3.0	1.7	4.2	2.3	.3	.1	.01
%RSD	.979	1.19	1.73	.556	1.54	1.03	10.2	2.66	6.00	3.64	1.01	.351	.199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664
Units	mg/L
Avg	**3.50**
Stddev	.05
%RSD	1.52
Check ?	Chk Pass
Value	
Range	

Sample Name: ICVLL Acquired: 01/31/2023 14:49:31 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**59544.**	**652520.**	**51660.**
Stddev	136.	3378.	174.
%RSD	.22854	.51762	.33660

Sample Name: icb Acquired: 01/31/2023 14:56:51 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.53**	**.334**	**2.62**	**-.082**	**.016**	**.077**	**-.241**	**-.058**	**.002**	**-.217**	**.256**	**-4.33**	**1.44**
Stddev	.72	.391	3.84	.313	.516	.752	.082	.190	.222	.068	.838	2.50	.67
%RSD	47.3	117.	147.	381.	3270.	976.	33.9	326.	10300.	31.4	327.	57.7	46.8
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**-.007**	**-.002**	**.082**	**-.090**	**-.296**	**-1.90**	**1.58**	**-.683**	**-.047**	**-.882**	**-.006**	**.208**
Stddev	.021	.013	.451	.171	2.00	3.45	1.82	1.59	.283	.197	.011	.010
%RSD	280.	636.	553.	190.	676.	182.	115.	233.	596.	22.3	171.	4.99
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60116.**	**661000.**	**52361.**
Stddev	123.	4520.	127.
%RSD	.20503	.68380	.24246

Sample Name: MRL/LLOQ Acquired: 01/31/2023 15:11:35 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **15.9**	**449.**	**20.5**	**11.2**	**3.91**	**539.**	**529.**	**5.58**	**11.1**	**10.5**	**12.5**	**8.73**	**347.**
Stddev	.6	3.	2.0	.1	.28	6.	1.	.10	.2	.5	.7	2.34	4.
%RSD	3.89	.707	9.78	1.04	7.14	1.18	.128	1.79	1.86	4.34	5.33	26.8	1.18
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.0												
Range	30.0%												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**539.**	**10.9**	**11.9**	**10.6**	**10.6**	**21.1**	**24.1**	**20.7**	**10.9**	**10.1**	**2.07**	**1.27**
Stddev	6.	.1	.2	.3	2.2	1.8	3.4	2.7	.4	.1	.01	.06
%RSD	1.18	1.27	1.27	2.55	20.6	8.55	14.3	12.9	4.02	.966	.513	4.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58925.**	**647540.**	**51237.**
Stddev	183.	6929.	152.
%RSD	.31134	1.0700	.29619

Sample Name: ICSA Acquired: 01/31/2023 15:18:53 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.706**	**528000.**	**-.123**	**-1.20**	**.041**	**518000.**	**-.185**	**.081**	**-.318**	**.005**	**-.229**
Stddev	3.12	5120.	3.76	.40	.275	5120.	.448	.043	.365	1.19	3.55
%RSD	443.	.970	3060.	33.6	666.	.989	242.	52.8	115.	25600.	1550.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**537000.**	**497000.**	**541000.**	**1.07**	**-.025**	**.096**	**-.000**	**-3.25**	**10.4**	**-.625**	**11300.**
Stddev	6420.	4660.	5780.	.04	.450	.395	4.86	2.01	4.0	2.25	118.
%RSD	1.20	.937	1.07	3.59	1800.	410.	1840000.	61.9	38.5	361.	1.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	mg/L	mg/L
Avg	**10900.**	**3.16**	**.196**	**.189**
Stddev	211.	.78	.009	.055
%RSD	1.92	24.5	4.51	29.2
Check ?	None	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: ICSA Acquired: 01/31/2023 15:18:53 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53130.**	**590410.**	**49487.**
Stddev	74.	9788.	170.
%RSD	.13935	1.6579	.34431

Sample Name: ICSAB Acquired: 01/31/2023 15:26:15 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2288	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**519.**	**523000.**	**567.**	**543.**	**567.**	**512000.**	**573.**	**516.**	**530.**	**527.**	**554.**
Stddev	3.	2800.	5.	2.	4.	3020.	5.	3.	6.	2.	14.
%RSD	.603	.535	.846	.330	.666	.590	.805	.608	1.16	.316	2.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**532000.**	**492000.**	**534000.**	**535.**	**559.**	**507.**	**487.**	**536.**	**521.**	**598.**	**552.**
Stddev	4260.	3720.	3090.	5.	4.	3.	5.	3.	4.	3.	5.
%RSD	.800	.757	.579	.876	.766	.508	1.06	.467	.823	.574	.919
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	mg/L	mg/L
Avg	**522.**	**562.**	**114.**	**109.**
Stddev	4.	4.	3.	.
%RSD	.723	.731	2.30	.109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ICSAB Acquired: 01/31/2023 15:26:15 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53074.**	**580410.**	**49364.**
Stddev	243.	5599.	160.
%RSD	.45766	.96458	.32466

Sample Name: ICVLL ag Acquired: 01/31/2023 15:40:28 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**12.2**	**1.87**	**-2.02**	**.167**	**-.177**	**-3.40**	**1.87**	**-.104**	**-.133**	**.369**	**1.75**	**-2.74**	**23.5**
Stddev	.3	.22	3.13	.208	.307	10.1	.20	.264	.329	.190	.80	2.43	3.7
%RSD	2.83	11.8	155.	125.	173.	297.	10.5	253.	248.	51.4	45.9	88.6	15.6

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**.840**	**.103**	**.156**	**-.200**	**.646**	**-2.51**	**1.18**	**-.190**	**.005**	**-.580**	**-.006**	**.200**
Stddev	.017	.022	.432	.521	1.49	.55	3.41	1.43	.174	.103	.009	.048
%RSD	2.02	21.4	278.	260.	231.	22.0	289.	757.	3450.	17.8	157.	24.2

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**59129.**	**656420.**	**51063.**
Stddev	128.	3776.	115.
%RSD	.21592	.57526	.22555

Sample Name: lcsw128482 Acquired: 01/31/2023 16:39:29 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**21.8**	**833.**	**898.**	**821.**	**21.0**	**198000.**	**21.5**	**211.**	**86.1**	**118.**	**105.**
Stddev	.4	7.	3.	3.	.5	835.	.2	.	.7	1.	5.
%RSD	1.88	.866	.307	.327	2.39	.421	.838	.230	.756	.442	4.40

Elem	Fe2343	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**416.**	**101000.**	**208.**	**2280.**	**208.**	**202.**	**217.**	**854.**	**780.**	**213.**	**223.**
Stddev	2.	18.	1.	7.	1.	3.	4.	5.	4.	1.	1.
%RSD	.361	.018	.651	.299	.527	1.67	1.78	.611	.479	.246	.467

Elem	Zn2138	Na3302	K_7698
Units	ug/L	mg/L	mg/L
Avg	**229.**	**106.**	**95.3**
Stddev	1.	1.	.5
%RSD	.336	.944	.557

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**55054.**	**609360.**	**49622.**
Stddev	96.	3944.	38.
%RSD	.17377	.64725	.07641

Sample Name: mbw128482 Acquired: 01/31/2023 16:46:49 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.87**	**4.33**	**1.67**	**.504**	**-.385**	**5.15**	**5.20**	**-.336**	**-.351**	**.106**	**2.07**	**-3.53**	**4.07**
Stddev	.23	.62	3.89	.113	.245	3.48	.65	.173	.191	.246	1.11	3.81	.55
%RSD	12.5	14.3	233.	22.5	63.7	67.5	12.5	51.5	54.5	233.	53.6	108.	13.5

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**1.25**	**.008**	**1.31**	**-.140**	**-1.59**	**-2.36**	**.212**	**-.327**	**-.058**	**-.455**	**.039**	**.286**
Stddev	.46	.037	.37	.336	1.60	2.69	4.39	1.93	.158	.153	.014	.025
%RSD	36.8	470.	28.3	239.	101.	114.	2080.	589.	274.	33.7	36.9	8.70

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**59172.**	**649630.**	**51009.**
Stddev	168.	4713.	71.
%RSD	.28439	.72550	.13852

Sample Name: ccv1 Acquired: 01/31/2023 16:54:13 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3131	Ca3158	Cd2288	Co2388	Cr2677	Cu3247	Cu3273	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**507.**	**4920.**	**5280.**	**5150.**	**529.**	**5080.**	**499.**	**5270.**	**5180.**	**5220.**	**4950.**	**5230.**	**5100.**
Stddev	2.	48.	15.	32.	4.	19.	2.	22.	30.	43.	22.	32.	31.
%RSD	.439	.966	.276	.624	.726	.372	.330	.424	.586	.821	.438	.612	.605
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Se2062	Tl1908	V_2908	V_2924	Zn2062	Na3302	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**5120.**	**5040.**	**5270.**	**5100.**	**5030.**	**5210.**	**5280.**	**4900.**	**5120.**	**5280.**	**5240.**	**50.8**	**49.5**
Stddev	53.	30.	9.	13.	4.	10.	16.	12.	33.	22.	12.	2.3	.2
%RSD	1.04	.586	.163	.248	.083	.184	.295	.251	.643	.417	.224	4.56	.401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**57446.**	**617740.**	**50405.**
Stddev	235.	2421.	115.
%RSD	.40858	.39183	.22778

Sample Name: ccv2 Acquired: 01/31/2023 17:00:34 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**53.8**	**548.**	**542.**	**544.**	**52.8**	**542.**	**525.**	**53.6**	**49.9**	**548.**	**534.**	**547.**	**528.**
Stddev	.5	4.	2.	3.	.1	13.	.	.2	.7	3.	2.	1.	3.
%RSD	.945	.678	.315	.552	.241	2.44	.052	.289	1.41	.577	.382	.202	.580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**551.**	**538.**	**537.**	**546.**	**545.**	**545.**	**548.**	**544.**	**549.**	**536.**	**549.**	**548.**	**5.20**
Stddev	2.	2.	2.	2.	3.	4.	2.	6.	4.	2.	3.	3.	.01
%RSD	.351	.341	.311	.396	.604	.766	.404	1.03	.769	.383	.477	.580	.177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664
Units	mg/L
Avg	**5.28**
Stddev	.07
%RSD	1.36
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv2 Acquired: 01/31/2023 17:00:34 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**59734.**	**652870.**	**50382.**
Stddev	172.	1794.	111.
%RSD	.28776	.27481	.22002

Sample Name: ccb Acquired: 01/31/2023 17:07:20 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.51**	**.310**	**2.74**	**.023**	**.014**	**-3.60**	**.315**	**.036**	**-.096**	**-.068**	**.048**	**1.41**	**.627**
Stddev	.22	.436	1.79	.245	.144	5.67	.230	.190	.122	.079	1.22	3.95	1.59
%RSD	14.7	141.	65.4	1050.	991.	158.	73.0	525.	127.	117.	2520.	280.	253.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**.298**	**.004**	**.907**	**-.230**	**-.426**	**-2.06**	**-1.79**	**1.42**	**.048**	**-.761**	**-.007**	**.209**
Stddev	.011	.019	.291	.391	3.05	2.39	3.75	1.90	.327	.176	.007	.035
%RSD	3.83	530.	32.0	170.	716.	116.	209.	134.	676.	23.2	113.	16.6
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60432.**	**658350.**	**50926.**
Stddev	82.	2116.	209.
%RSD	.13632	.32137	.41015

Sample Name: 1284325 Acquired: 01/31/2023 17:14:44 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.00**	**17400.**	**8.76**	**198.**	**.715**	**138000.**	**-.541**	**12.3**	**26.1**	**34.4**	**32.0**
Stddev	.49	78.	4.64	1.	.433	294.	.155	.2	.2	.9	2.0
%RSD	48.5	.447	53.0	.732	60.6	.213	28.7	1.95	.620	2.48	6.35

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**23900.**	**23100.**	**80200.**	**826.**	**2.94**	**21.7**	**29.5**	**.061**	**1.35**	**8.85**	**27.5**
Stddev	58.	91.	277.	9.	.34	.3	2.0	3.06	4.26	1.59	.3
%RSD	.243	.393	.346	1.08	11.7	1.39	6.70	5020.	314.	18.0	1.09

Elem	Zn2138	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**82.2**	**20.4**	**6.06**
Stddev	.4	.0	.08
%RSD	.519	.186	1.36

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58339.**	**635360.**	**51729.**
Stddev	224.	6407.	123.
%RSD	.38323	1.0083	.23861

Sample Name: I1284325 Acquired: 01/31/2023 17:22:05 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.705**	**5120.**	**.183**	**37.1**	**.047**	**40700.**	**-.497**	**2.23**	**6.71**	**5.46**	**11.7**	**5380.**
Stddev	.990	250.	3.94	3.5	.266	2110.	.238	.34	.40	.60	5.2	376.
%RSD	140.	4.89	2150.	9.53	564.	5.19	47.9	15.2	5.94	11.0	44.1	6.99

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**6980.**	**23800.**	**199.**	**.551**	**4.41**	**7.42**	**.823**	**2.71**	**2.77**	**6.51**	**16.5**	**5.56**
Stddev	329.	1280.	13.	.757	.32	.74	3.19	2.39	1.45	.64	1.3	.26
%RSD	4.71	5.39	6.75	137.	7.13	9.99	388.	88.4	52.2	9.87	8.11	4.60

Elem	K_7664
Units	mg/L
Avg	**1.70**
Stddev	.07
%RSD	4.00

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58195.**	**635330.**	**48530.**
Stddev	528.	8139.	180.
%RSD	.90794	1.2811	.37017

Sample Name: dup1284325 Acquired: 01/31/2023 17:29:40 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.878**	**16700.**	**6.98**	**195.**	**1.07**	**140000.**	**-.712**	**12.5**	**26.3**	**33.1**	**33.5**
Stddev	.538	58.	1.66	1.	.27	575.	.268	.3	.4	.7	7.5
%RSD	61.3	.349	23.8	.557	25.2	.410	37.7	2.08	1.39	2.18	22.4

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**23400.**	**22900.**	**81900.**	**825.**	**2.25**	**21.5**	**30.1**	**.220**	**1.34**	**7.59**	**26.4**
Stddev	175.	113.	533.	1.	.25	.4	2.7	2.28	5.52	1.38	.1
%RSD	.745	.494	.651	.175	10.9	1.69	9.12	1040.	412.	18.2	.563

Elem	Zn2138	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**81.8**	**19.3**	**5.27**
Stddev	.3	.3	.13
%RSD	.311	1.47	2.50

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58543.**	**628700.**	**48109.**
Stddev	98.	654.	843.
%RSD	.16701	.10403	1.7529

Sample Name: msw1284325 Acquired: 01/31/2023 17:37:01 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Ba4934	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**20.1**	**24800.**	**796.**	**949.**	**1050.**	**22.0**	**333000.**	**18.1**	**202.**	**107.**	**139.**
Stddev	.6	118.	5.	4.	10.	.4	1710.	.0	.	1.	1.
%RSD	2.78	.475	.577	.379	.937	1.68	.513	.239	.215	.601	.504

Elem	Cu3273	Fe2395	Fe2599	Mg2790	Mn2593	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**135.**	**24900.**	**25000.**	**181000.**	**894.**	**2010.**	**208.**	**208.**	**140.**	**728.**	**601.**
Stddev	4.	132.	164.	1280.	4.	5.	1.	1.	6.	4.	5.
%RSD	3.16	.530	.655	.709	.447	.264	.564	.719	4.04	.520	.875

Elem	V_2924	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**230.**	**286.**	**298.**	**126.**	**97.4**
Stddev	1.	1.	1.	2.	1.4
%RSD	.491	.372	.307	1.97	1.44

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**56119.**	**606730.**	**47971.**
Stddev	145.	1324.	724.
%RSD	.25857	.21829	1.5097

Sample Name: msdw1284325 Acquired: 01/31/2023 17:43:57 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Ba4934	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**21.3**	**24800.**	**873.**	**1000.**	**1100.**	**22.9**	**338000.**	**20.0**	**218.**	**115.**	**147.**
Stddev	.4	96.	7.	3.	9.	.7	1290.	.2	.	1.	2.
%RSD	1.73	.387	.807	.318	.780	2.95	.382	1.20	.212	.767	1.10

Elem	Cu3273	Fe2395	Fe2599	Mg2790	Mn2593	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**137.**	**24400.**	**24500.**	**183000.**	**875.**	**2150.**	**224.**	**224.**	**156.**	**807.**	**736.**
Stddev	3.	71.	109.	1140.	7.	6.	1.	3.	5.	7.	2.
%RSD	1.93	.290	.443	.624	.770	.279	.310	1.19	3.49	.925	.256

Elem	V_2924	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**249.**	**303.**	**313.**	**132.**	**103.**
Stddev	2.	2.	1.	3.	1.
%RSD	.767	.499	.309	1.93	.840

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**55749.**	**600060.**	**48131.**
Stddev	126.	4887.	514.
%RSD	.22552	.81447	1.0682

Sample Name: pdsw1284325 Acquired: 01/31/2023 17:50:53 Type: Unk
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3131	Ca3158	Cd2265	Cd2288	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**88.2**	**20800.**	**3860.**	**4150.**	**99.7**	**521000.**	**85.9**	**87.9**	**879.**	**395.**	**467.**
Stddev	1.7	146.	20.	63.	1.5	7850.	.4	2.3	1.	5.	1.
%RSD	1.91	.702	.518	1.53	1.50	1.51	.502	2.66	.080	1.39	.240

Elem	Cu3273	Fe2395	Fe2599	Mg2790	Mn2593	Mo2045	Ni2316	Pb2203	Sb2068	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**506.**	**24500.**	**24200.**	**277000.**	**1480.**	**2320.**	**872.**	**871.**	**936.**	**3690.**	**3090.**
Stddev	7.	230.	64.	4670.	10.	8.	2.	3.	2.	29.	12.
%RSD	1.30	.938	.262	1.69	.693	.352	.277	.292	.181	.793	.401

Elem	V_2924	Zn2062	Na3302	K_7698
Units	ug/L	ug/L	mg/L	mg/L
Avg	**957.**	**982.**	**232.**	**193.**
Stddev	16.	2.	5.	1.
%RSD	1.65	.176	2.34	.771

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**54211.**	**583170.**	**47313.**
Stddev	55.	2760.	402.
%RSD	.10236	.47335	.85057

Sample Name: ccv1 Acquired: 01/31/2023 18:26:41 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3131	Ca3158	Cd2288	Co2388	Cr2677	Cu3247	Cu3273	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**503.**	**4940.**	**5260.**	**5100.**	**517.**	**5100.**	**477.**	**5200.**	**5220.**	**5100.**	**5040.**	**5150.**	**5290.**
Stddev	3.	30.	33.	32.	4.	41.	3.	31.	24.	26.	30.	27.	35.
%RSD	.508	.613	.623	.627	.688	.799	.597	.604	.458	.518	.585	.524	.665
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Se2062	Tl1908	V_2908	V_2924	Zn2062	Na3302	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**5130.**	**5160.**	**5250.**	**5040.**	**4860.**	**5190.**	**5240.**	**4810.**	**5210.**	**5240.**	**5210.**	**50.0**	**49.7**
Stddev	64.	43.	32.	31.	39.	32.	32.	29.	46.	31.	35.	1.8	.3
%RSD	1.24	.829	.616	.609	.795	.612	.604	.598	.874	.592	.665	3.51	.532
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**49.4**
Stddev	.3
%RSD	.686
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 01/31/2023 18:26:41 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**58139.**	**618260.**	**49607.**
Stddev	224.	2124.	308.
%RSD	.38510	.34348	.62121

Sample Name: ccv2 Acquired: 01/31/2023 18:33:03 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**53.8**	**540.**	**544.**	**543.**	**53.6**	**551.**	**530.**	**52.2**	**544.**	**532.**	**547.**	**522.**	**552.**
Stddev	.6	1.	5.	2.	.7	3.	3.	.3	1.	4.	1.	5.	5.
%RSD	1.12	.232	.966	.312	1.36	.526	.540	.595	.220	.699	.204	.864	.884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**544.**	**546.**	**539.**	**538.**	**546.**	**542.**	**541.**	**538.**	**539.**	**550.**	**546.**	**5.25**	**5.34**
Stddev	4.	4.	1.	1.	1.	3.	1.	2.	4.	1.	1.	.02	.06
%RSD	.804	.816	.222	.128	.101	.611	.130	.441	.774	.263	.140	.397	1.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**60460.**	**648290.**	**50153.**
Stddev	147.	6291.	75.
%RSD	.24330	.97039	.14899

Sample Name: ccb Acquired: 01/31/2023 18:39:52 Type: QC
Method: DOD Calibration Updated 060614(v5474) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

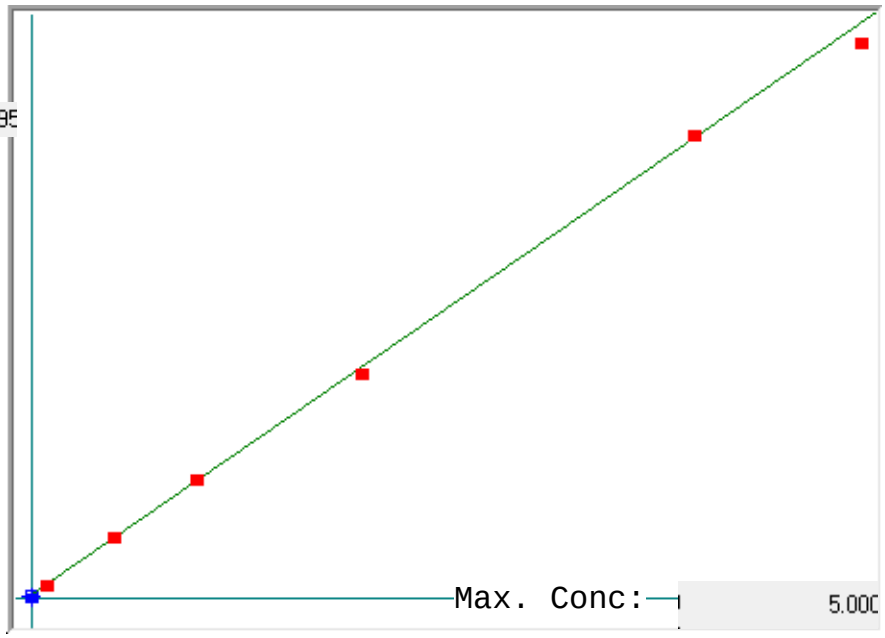
Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.913**	**-.331**	**.758**	**.004**	**-.029**	**-7.56**	**.962**	**-.228**	**.048**	**.226**	**.976**	**1.37**	**.490**
Stddev	.386	.249	2.76	.226	.391	5.04	.192	.179	.377	.218	.321	2.64	.679
%RSD	42.3	75.4	363.	5620.	1370.	66.6	20.0	78.3	793.	96.6	32.8	192.	139.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**.642**	**.037**	**1.25**	**.009**	**-.106**	**.103**	**3.80**	**1.01**	**.148**	**-.706**	**-.009**	**.249**
Stddev	.030	.010	.44	.317	1.12	1.54	1.84	1.17	.323	.031	.013	.054
%RSD	4.70	27.0	35.1	3450.	1060.	1500.	48.5	116.	218.	4.42	144.	21.5
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**61299.**	**657940.**	**50304.**
Stddev	191.	2008.	162.
%RSD	.31160	.30519	.32291

Hg LIQUIDS

Wt. Linear



A= 0.0000e+000

B= 1.7173e-004

C= -2.7265e-002

Rho= 0.9995666

Accept= Accepted

Accepted Date=

02/02/23 10:12

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	-0.000	-0.000	157	5.679	149	161	156	164	
0.1	0.100	0.104	0.004	762	3.4 %	730	748	774	798	
0.5	0.500	0.524	0.024	3208	4.0 %	3029	3154	3281	3369	
1.0	1.000	1.018	0.018	6088	3.9 %	5775	5972	6200	6407	
2.0	2.000	1.951	-0.049	11521	3.1 %	11036	11363	11698	11988	
4.0	4.000	4.027	0.027	23607	3.4 %	22454	23332	24085	24559	
5.0	5.000	4.832	-0.168	28295	3.2 %	27030	27922	28730	29498	

020223W

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 02 Feb 2023 09:35:25

Sample ID	Date	Element	Units	Extended ID	Mean
CALIBRATION BLANK	02 Feb 2023 09:50:15	Hg			158
0.1	02 Feb 2023 09:53:24	Hg			763
0.5	02 Feb 2023 09:56:36	Hg			3208
1.0	02 Feb 2023 09:59:48	Hg			6089
2.0	02 Feb 2023 10:02:59	Hg			11521
4.0	02 Feb 2023 10:06:09	Hg			23608
5.0	02 Feb 2023 10:09:20	Hg			28295
ICV	02 Feb 2023 10:12:30	Hg			102.0% 3.061
ICB	02 Feb 2023 10:18:49	Hg			0.002
LCSW	02 Feb 2023 10:21:58	Hg			1.902
MBW	02 Feb 2023 10:28:16	Hg			0.002
1281965	02 Feb 2023 10:31:26	Hg			0.078
1283582	02 Feb 2023 10:34:35	Hg		5	0.135
1283774	02 Feb 2023 10:37:45	Hg			-0.009
1284325	02 Feb 2023 10:40:54	Hg			-0.020
DUP1283774	02 Feb 2023 10:44:04	Hg			-0.009
1285221	02 Feb 2023 10:47:14	Hg			-0.002
1285222	02 Feb 2023 10:50:24	Hg			-0.004
CCV	02 Feb 2023 10:53:34	Hg			95.7% 2.871
CCB	02 Feb 2023 10:59:53	Hg			0.001
MSW1283774	02 Feb 2023 11:03:02	Hg			0.920
MSDW1283774	02 Feb 2023 11:06:13	Hg			0.915
MSW1285221	02 Feb 2023 11:09:24	Hg			1.956
MSDW1285221	02 Feb 2023 11:12:34	Hg			1.986
MSW1283582	02 Feb 2023 11:15:44	Hg		5	0.409
MSDW1283582	02 Feb 2023 11:18:53	Hg		5	0.487
MBW128499	02 Feb 2023 11:25:12	Hg			-0.001
1283177	02 Feb 2023 11:28:21	Hg			-0.000
1284025	02 Feb 2023 11:31:31	Hg			-0.002
CCV	02 Feb 2023 11:34:41	Hg			(L)89.8% 2.693
CCV	02 Feb 2023 11:37:50	Hg			104.5% 3.134
CCB	02 Feb 2023 11:44:08	Hg			-0.006
DUP1284025	02 Feb 2023 11:47:18	Hg			0.001
1284027	02 Feb 2023 11:50:28	Hg			0.007
1284029	02 Feb 2023 11:53:39	Hg			0.010
1284031	02 Feb 2023 11:56:50	Hg			0.009
1284339	02 Feb 2023 12:00:01	Hg			0.011
1284325	02 Feb 2023 12:03:11	Hg			-0.032
MSW1284025	02 Feb 2023 12:06:21	Hg			2.169
MSDW1284025	02 Feb 2023 12:09:31	Hg			2.262
CCV	02 Feb 2023 12:12:40	Hg			103.2% 3.095
CCB	02 Feb 2023 12:18:59	Hg			-0.004

020223W

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 02 Feb 2023 09:35:25

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CALIBRATION BLANK - 1	02 Feb 2023 09:50:15	Hg			149	-
CALIBRATION BLANK - 2	02 Feb 2023 09:50:15	Hg			161	-
CALIBRATION BLANK - 3	02 Feb 2023 09:50:15	Hg			156	-
CALIBRATION BLANK - 4	02 Feb 2023 09:50:15	Hg			164	-
0.1 - 1	02 Feb 2023 09:53:24	Hg			730	-
0.1 - 2	02 Feb 2023 09:53:24	Hg			748	-
0.1 - 3	02 Feb 2023 09:53:24	Hg			774	-
0.1 - 4	02 Feb 2023 09:53:24	Hg			798	-
0.5 - 1	02 Feb 2023 09:56:36	Hg			3029	-
0.5 - 2	02 Feb 2023 09:56:36	Hg			3154	-
0.5 - 3	02 Feb 2023 09:56:36	Hg			3281	-
0.5 - 4	02 Feb 2023 09:56:36	Hg			3369	-
1.0 - 1	02 Feb 2023 09:59:48	Hg			5775	-
1.0 - 2	02 Feb 2023 09:59:48	Hg			5972	-
1.0 - 3	02 Feb 2023 09:59:48	Hg			6200	-
1.0 - 4	02 Feb 2023 09:59:48	Hg			6407	-
2.0 - 1	02 Feb 2023 10:02:59	Hg			11036	-
2.0 - 2	02 Feb 2023 10:02:59	Hg			11363	-
2.0 - 3	02 Feb 2023 10:02:59	Hg			11698	-
2.0 - 4	02 Feb 2023 10:02:59	Hg			11988	-
4.0 - 1	02 Feb 2023 10:06:09	Hg			22454	-
4.0 - 2	02 Feb 2023 10:06:09	Hg			23332	-
4.0 - 3	02 Feb 2023 10:06:09	Hg			24085	-
4.0 - 4	02 Feb 2023 10:06:09	Hg			24559	-
5.0 - 1	02 Feb 2023 10:09:20	Hg			27030	-
5.0 - 2	02 Feb 2023 10:09:20	Hg			27922	-
5.0 - 3	02 Feb 2023 10:09:20	Hg			28730	-
5.0 - 4	02 Feb 2023 10:09:20	Hg			29498	-
ICV - 1	02 Feb 2023 10:12:30	Hg			17099	97.0% 2.909
ICV - 2	02 Feb 2023 10:12:30	Hg			17700	100.4% 3.012
ICV - 3	02 Feb 2023 10:12:30	Hg			18316	103.9% 3.118
ICV - 4	02 Feb 2023 10:12:30	Hg			18826	106.9% 3.206
ICB - 1	02 Feb 2023 10:18:49	Hg			169	0.002
ICB - 2	02 Feb 2023 10:18:49	Hg			161	0.000
ICB - 3	02 Feb 2023 10:18:49	Hg			170	0.002
ICB - 4	02 Feb 2023 10:18:49	Hg			179	0.003
LCSW - 1	02 Feb 2023 10:21:58	Hg			10676	1.806
LCSW - 2	02 Feb 2023 10:21:58	Hg			11094	1.878
LCSW - 3	02 Feb 2023 10:21:58	Hg			11450	1.939
LCSW - 4	02 Feb 2023 10:21:58	Hg			11721	1.986
MBW - 1	02 Feb 2023 10:28:16	Hg			160	0.000
MBW - 2	02 Feb 2023 10:28:16	Hg			162	0.001
MBW - 3	02 Feb 2023 10:28:16	Hg			173	0.002
MBW - 4	02 Feb 2023 10:28:16	Hg			178	0.003
1281965 - 1	02 Feb 2023 10:31:26	Hg			591	0.074
1281965 - 2	02 Feb 2023 10:31:26	Hg			606	0.077
1281965 - 3	02 Feb 2023 10:31:26	Hg			620	0.079
1281965 - 4	02 Feb 2023 10:31:26	Hg			632	0.081
1283582 - 1	02 Feb 2023 10:34:35	Hg		5	918	0.130
1283582 - 2	02 Feb 2023 10:34:35	Hg		5	945	0.135
1283582 - 3	02 Feb 2023 10:34:35	Hg		5	953	0.136
1283582 - 4	02 Feb 2023 10:34:35	Hg		5	974	0.140
1283774 - 1	02 Feb 2023 10:37:45	Hg			107	-0.009
1283774 - 2	02 Feb 2023 10:37:45	Hg			104	-0.009
1283774 - 3	02 Feb 2023 10:37:45	Hg			110	-0.008
1283774 - 4	02 Feb 2023 10:37:45	Hg			103	-0.010
1284325 - 1	02 Feb 2023 10:40:54	Hg			35	-0.021
1284325 - 2	02 Feb 2023 10:40:54	Hg			46	-0.019
1284325 - 3	02 Feb 2023 10:40:54	Hg			44	-0.020
1284325 - 4	02 Feb 2023 10:40:54	Hg			40	-0.020
DUP1283774 - 1	02 Feb 2023 10:44:04	Hg			102	-0.010
DUP1283774 - 2	02 Feb 2023 10:44:04	Hg			106	-0.009
DUP1283774 - 3	02 Feb 2023 10:44:04	Hg			112	-0.008
DUP1283774 - 4	02 Feb 2023 10:44:04	Hg			110	-0.008
1285221 - 1	02 Feb 2023 10:47:14	Hg			145	-0.002
1285221 - 2	02 Feb 2023 10:47:14	Hg			152	-0.001
1285221 - 3	02 Feb 2023 10:47:14	Hg			149	-0.002
1285221 - 4	02 Feb 2023 10:47:14	Hg			149	-0.002
1285222 - 1	02 Feb 2023 10:50:24	Hg			132	-0.005
1285222 - 2	02 Feb 2023 10:50:24	Hg			136	-0.004
1285222 - 3	02 Feb 2023 10:50:24	Hg			131	-0.005
1285222 - 4	02 Feb 2023 10:50:24	Hg			142	-0.003
CCV - 1	02 Feb 2023 10:53:34	Hg			16035	90.9% 2.726
CCV - 2	02 Feb 2023 10:53:34	Hg			16649	94.4% 2.832
CCV - 3	02 Feb 2023 10:53:34	Hg			17211	97.6% 2.928
CCV - 4	02 Feb 2023 10:53:34	Hg			17622	100.0% 2.999
CCB - 1	02 Feb 2023 10:59:53	Hg			157	-0.000
CCB - 2	02 Feb 2023 10:59:53	Hg			164	0.001
CCB - 3	02 Feb 2023 10:59:53	Hg			171	0.002

020223W

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 02 Feb 2023 09:35:25

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CCB - 4	02 Feb 2023 10:59:53	Hg			174	0.003
MSW1283774 - 1	02 Feb 2023 11:03:02	Hg			5475	0.913
MSW1283774 - 2	02 Feb 2023 11:03:02	Hg			5526	0.922
MSW1283774 - 3	02 Feb 2023 11:03:02	Hg			5532	0.923
MSW1283774 - 4	02 Feb 2023 11:03:02	Hg			5533	0.923
MSDW1283774 - 1	02 Feb 2023 11:06:13	Hg			5409	0.902
MSDW1283774 - 2	02 Feb 2023 11:06:13	Hg			5515	0.920
MSDW1283774 - 3	02 Feb 2023 11:06:13	Hg			5529	0.922
MSDW1283774 - 4	02 Feb 2023 11:06:13	Hg			5495	0.916
MSW1285221 - 1	02 Feb 2023 11:09:24	Hg			10983	1.859
MSW1285221 - 2	02 Feb 2023 11:09:24	Hg			11393	1.929
MSW1285221 - 3	02 Feb 2023 11:09:24	Hg			11746	1.990
MSW1285221 - 4	02 Feb 2023 11:09:24	Hg			12085	2.048
MSDW1285221 - 1	02 Feb 2023 11:12:34	Hg			11261	1.907
MSDW1285221 - 2	02 Feb 2023 11:12:34	Hg			11660	1.975
MSDW1285221 - 3	02 Feb 2023 11:12:34	Hg			11894	2.015
MSDW1285221 - 4	02 Feb 2023 11:12:34	Hg			12088	2.049
MSW1283582 - 1	02 Feb 2023 11:15:44	Hg		5	2432	0.390
MSW1283582 - 2	02 Feb 2023 11:15:44	Hg		5	2505	0.403
MSW1283582 - 3	02 Feb 2023 11:15:44	Hg		5	2563	0.413
MSW1283582 - 4	02 Feb 2023 11:15:44	Hg		5	2660	0.430
MSDW1283582 - 1	02 Feb 2023 11:18:53	Hg		5	2779	0.450
MSDW1283582 - 2	02 Feb 2023 11:18:53	Hg		5	2921	0.474
MSDW1283582 - 3	02 Feb 2023 11:18:53	Hg		5	3073	0.500
MSDW1283582 - 4	02 Feb 2023 11:18:53	Hg		5	3194	0.521
MBW128499 - 1	02 Feb 2023 11:25:12	Hg			143	-0.003
MBW128499 - 2	02 Feb 2023 11:25:12	Hg			149	-0.002
MBW128499 - 3	02 Feb 2023 11:25:12	Hg			153	-0.001
MBW128499 - 4	02 Feb 2023 11:25:12	Hg			168	0.002
1283177 - 1	02 Feb 2023 11:28:21	Hg			155	-0.001
1283177 - 2	02 Feb 2023 11:28:21	Hg			157	-0.000
1283177 - 3	02 Feb 2023 11:28:21	Hg			157	-0.000
1283177 - 4	02 Feb 2023 11:28:21	Hg			163	0.001
1284025 - 1	02 Feb 2023 11:31:31	Hg			144	-0.003
1284025 - 2	02 Feb 2023 11:31:31	Hg			138	-0.004
1284025 - 3	02 Feb 2023 11:31:31	Hg			153	-0.001
1284025 - 4	02 Feb 2023 11:31:31	Hg			149	-0.002
CCV - 1	02 Feb 2023 11:34:41	Hg			14991	(L)84.9% 2.547
CCV - 2	02 Feb 2023 11:34:41	Hg			15558	(L)88.1% 2.644
CCV - 3	02 Feb 2023 11:34:41	Hg			16181	91.7% 2.751
CCV - 4	02 Feb 2023 11:34:41	Hg			16626	94.3% 2.828
CCV - 1	02 Feb 2023 11:37:50	Hg			17451	99.0% 2.970
CCV - 2	02 Feb 2023 11:37:50	Hg			18163	103.1% 3.092
CCV - 3	02 Feb 2023 11:37:50	Hg			18820	106.8% 3.205
CCV - 4	02 Feb 2023 11:37:50	Hg			19210	109.1% 3.272
CCB - 1	02 Feb 2023 11:44:08	Hg			118	-0.007
CCB - 2	02 Feb 2023 11:44:08	Hg			117	-0.007
CCB - 3	02 Feb 2023 11:44:08	Hg			130	-0.005
CCB - 4	02 Feb 2023 11:44:08	Hg			128	-0.005
DUP1284025 - 1	02 Feb 2023 11:47:18	Hg			156	-0.000
DUP1284025 - 2	02 Feb 2023 11:47:18	Hg			163	0.001
DUP1284025 - 3	02 Feb 2023 11:47:18	Hg			170	0.002
DUP1284025 - 4	02 Feb 2023 11:47:18	Hg			164	0.001
1284027 - 1	02 Feb 2023 11:50:28	Hg			187	0.005
1284027 - 2	02 Feb 2023 11:50:28	Hg			187	0.005
1284027 - 3	02 Feb 2023 11:50:28	Hg			206	0.008
1284027 - 4	02 Feb 2023 11:50:28	Hg			207	0.008
1284029 - 1	02 Feb 2023 11:53:39	Hg			204	0.008
1284029 - 2	02 Feb 2023 11:53:39	Hg			215	0.010
1284029 - 3	02 Feb 2023 11:53:39	Hg			221	0.011
1284029 - 4	02 Feb 2023 11:53:39	Hg			231	0.012
1284031 - 1	02 Feb 2023 11:56:50	Hg			206	0.008
1284031 - 2	02 Feb 2023 11:56:50	Hg			205	0.008
1284031 - 3	02 Feb 2023 11:56:50	Hg			217	0.010
1284031 - 4	02 Feb 2023 11:56:50	Hg			225	0.011
1284339 - 1	02 Feb 2023 12:00:01	Hg			218	0.010
1284339 - 2	02 Feb 2023 12:00:01	Hg			236	0.013
1284339 - 3	02 Feb 2023 12:00:01	Hg			218	0.010
1284339 - 4	02 Feb 2023 12:00:01	Hg			230	0.012
1284325 - 1	02 Feb 2023 12:03:11	Hg			-24	-0.031
1284325 - 2	02 Feb 2023 12:03:11	Hg			-26	-0.032
1284325 - 3	02 Feb 2023 12:03:11	Hg			-28	-0.032
1284325 - 4	02 Feb 2023 12:03:11	Hg			-23	-0.031
MSW1284025 - 1	02 Feb 2023 12:06:21	Hg			12393	2.101
MSW1284025 - 2	02 Feb 2023 12:06:21	Hg			12668	2.148
MSW1284025 - 3	02 Feb 2023 12:06:21	Hg			12914	2.190
MSW1284025 - 4	02 Feb 2023 12:06:21	Hg			13191	2.238
MSDW1284025 - 1	02 Feb 2023 12:09:31	Hg			12746	2.162
MSDW1284025 - 2	02 Feb 2023 12:09:31	Hg			13176	2.235

020223W

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 02 Feb 2023 09:35:25

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
MSDW1284025 - 3	02 Feb 2023 12:09:31	Hg			13539	2.298
MSDW1284025 - 4	02 Feb 2023 12:09:31	Hg			13857	2.352
CCV - 1	02 Feb 2023 12:12:40	Hg			17510	99.3% 2.980
CCV - 2	02 Feb 2023 12:12:40	Hg			17901	101.6% 3.047
CCV - 3	02 Feb 2023 12:12:40	Hg			18363	104.2% 3.126
CCV - 4	02 Feb 2023 12:12:40	Hg			18961	107.6% 3.229
CCB - 1	02 Feb 2023 12:18:59	Hg			129	-0.005
CCB - 2	02 Feb 2023 12:18:59	Hg			138	-0.004
CCB - 3	02 Feb 2023 12:18:59	Hg			139	-0.003
CCB - 4	02 Feb 2023 12:18:59	Hg			144	-0.003

METALS
LOGBOOK
DOCUMENTS

MICP WATER QSM K&Na Analytical Run
268911 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1286169								ICP NA TOTAL QSM 5.0				
					L	1284325							
	1286170								ICP K TOTAL QSM 5.0				
					L	1284325							
	1286171								ICP NA TOTAL QSM 5.0				
					PDSW	1284325							
	1286172								ICP K TOTAL QSM 5.0				
					PDSW	1284325							
	1285696								MICP WATER QSM K&Na				
					ICV					0			
	1285697								MICP WATER QSM K&Na				
					ICVLL					0			
	1285698								MICP WATER QSM K&Na				
					ICB					0			
	1285699								MICP WATER QSM K&Na				
					ICSA					0			
	1285700								MICP WATER QSM K&Na				
					ICSAB					0			
	1285701								MICP WATER QSM K&Na				
					ICVLL					0			
	1285702								MICP WATER QSM K&Na				
					CCV1					0			
	1285703								MICP WATER QSM K&Na				
					CCV2					0			
	1285704								MICP WATER QSM K&Na				
					CCB					0			
175116	1284325		1/27/2023	15:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP K TOTAL QSM 5.0		GW	4	
		49IDW								128482			
175116	1284325		1/27/2023	15:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP NA TOTAL QSM 5.0		GW	4	
		49IDW								128482			
	1284367		1/27/2023	15:50					ICP K TOTAL QSM 5.0				
		49IDW			DUP	1284325				128482			
	1284367		1/27/2023	15:50					ICP NA TOTAL QSM 5.0				
		49IDW			DUP	1284325				128482			
	1284368		1/27/2023	15:50					ICP K TOTAL QSM 5.0				
		49IDW			MSW	1284325				128482			
	1284368		1/27/2023	15:50					ICP NA TOTAL QSM 5.0				
		49IDW			MSW	1284325				128482			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpZEAD.tmp

MICP WATER QSM K&Na Analytical Run
268911 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284369		1/27/2023	15:50					ICP K TOTAL QSM 5.0				
		49IDW			MSDW	1284368				128482			
	1284369		1/27/2023	15:50					ICP NA TOTAL QSM 5.0				
		49IDW			MSDW	1284368				128482			
	1285707								MICP WATER QSM K&Na				
					CCV1					0			
	1285708								MICP WATER QSM K&Na				
					CCV2					0			
	1285709								MICP WATER QSM K&Na				
					CCB					0			

24 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpZEAD.tmp

MICP WATER QSM Analytical Run
268912 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285710								MICP WATER QSM				
					ICV					0			
	1285711								MICP WATER QSM				
					ICVLL					0			
	1285712								MICP WATER QSM				
					ICB					0			
	1285713								MICP WATER QSM				
					ICSA					0			
	1285714								MICP WATER QSM				
					ICSAB					0			
	1285715								MICP WATER QSM				
					ICVLL					0			
	1284371								ICP K TOTAL QSM 5.0				
					LCSW					128482			
	1284371								ICP NA TOTAL QSM 5.0				
					LCSW					128482			
	1284371								ICP TOTAL QSM 5.0				
					LCSW					128482			
	1284370								ICP K TOTAL QSM 5.0				
					MBW					128482			
	1284370								ICP NA TOTAL QSM 5.0				
					MBW					128482			
	1284370								ICP TOTAL QSM 5.0				
					MBW					128482			
	1285716								MICP WATER QSM				
					CCV1					0			
	1285717								MICP WATER QSM				
					CCV2					0			
	1285718								MICP WATER QSM				
					CCB					0			
175116	1284325		1/27/2023	15:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP TOTAL QSM 5.0		GW	4	
		49IDW								128482			
	1285719								ICP TOTAL QSM 5.0				
					L	1284325				0			
	1284367		1/27/2023	15:50					ICP TOTAL QSM 5.0				
		49IDW			DUP	1284325				128482			
	1284368		1/27/2023	15:50					ICP TOTAL QSM 5.0				
		49IDW			MSW	1284325				128482			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp208.tmp

MICP WATER QSM Analytical Run
268912 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284369		1/27/2023 15:50				ICP TOTAL QSM 5.0				
		49IDW		MSDW 1284368				128482			
	1285720						ICP TOTAL QSM 5.0				
				PDSW 1284325				0			
	1285721						MICP WATER QSM				
				CCV1				0			
	1285722						MICP WATER QSM				
				CCV2				0			
	1285723						MICP WATER QSM				
				CCB				0			

24 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp209.tmp

MERCURY QSM 5.0 Analytical Run
268967 on 2/2/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285973								MERCURY QSM 5.0				
					ICV					0			
	1285974								MERCURY QSM 5.0				
					ICB					0			
	1284468								MERCURY TOTAL QSM 5.0				
					LCSW					128485			
	1284467								MERCURY TOTAL QSM 5.0				
					MBW					128485			
175069	1283774		1/25/2023	14:25			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	MERCURY TOTAL QSM 5.0		GW	4	
		54 IDW								128485			
175116	1284325		1/27/2023	15:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	MERCURY TOTAL QSM 5.0		GW	4	
		49IDW								128485			
	1284469		1/27/2023	15:50					MERCURY TOTAL QSM 5.0				
		49IDW			DUP	1283774				128485			
	1285975								MERCURY QSM 5.0				
					CCV					0			
	1285976								MERCURY QSM 5.0				
					CCB					0			
	1284470		1/27/2023	15:50					MERCURY TOTAL QSM 5.0				
		49IDW			MSW	1283774				128485			
	1284471		1/27/2023	15:50					MERCURY TOTAL QSM 5.0				
		49IDW			MSDW	1284470				128485			
	1285977								MERCURY QSM 5.0				
					CCV					0			
	1285978								MERCURY QSM 5.0				
					CCV					0			
	1285979								MERCURY QSM 5.0				
					CCB					0			

14 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp3663.tmp Page 1 of 1

PrepWrkSht2
on 2/3/2023

Prep Batch: **128482**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1284370	MBW	0	ICP K TOTAL QSM 5.0			LIQUID				
	1284370	MBW	0	ICP NA TOTAL QSM 5.0			LIQUID				
	1284370	MBW	0	ICP TOTAL QSM 5.0			LIQUID				
	1284371	LCSW	0	ICP K TOTAL QSM 5.0			LIQUID				
	1284371	LCSW	0	ICP NA TOTAL QSM 5.0			LIQUID				
	1284371	LCSW	0	ICP TOTAL QSM 5.0			LIQUID				
175116	1284325			ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	1/27/23	15:50	2/9/23	4
	1284325			ICP NA TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	1/27/23	15:50	2/9/23	4
	1284325			ICP K TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	1/27/23	15:50	2/9/23	4
	1284367	DUP	1284325	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284367	DUP	1284325	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284367	DUP	1284325	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284368	MSW	1284325	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284368	MSW	1284325	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284368	MSW	1284325	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284369	MSDW	1284368	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284369	MSDW	1284368	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		

PrepWrkSht2
on 2/3/2023

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1284369	MSDW	1284368	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23 15:50		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp5245.tmp

PrepWrkSht2
on 2/13/2023

Prep Batch: **128485**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1284467	MBW		MERCURY TOTAL QSM 5.0			LIQUID				
	1284468	LCSW		MERCURY TOTAL QSM 5.0			LIQUID				
175069	1283774			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	1/25/23	14:25	2/7/23	4
175116	1284325			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	1/27/23	15:50	2/9/23	4
	1284469	DUP	1283774	MERCURY TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284470	MSW	1283774	MERCURY TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		
	1284471	MSDW	1284470	MERCURY TOTAL QSM 5.0		49IDW	GROUND WATER	1/27/23	15:50		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp307B.tmp

Metals Digestion Bench Sheet

Program: QSM
*Matrix: GW

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA As & Se Liquids

Prep Batch #:	128482
Prep Method:	200.2
Analyst:	NAH
Date:	01/30/2023
Start Time:	10:30

Prep Analyst: BMM
Balance ID:

End Date: 01/30/2023
End Time: 23:13

Reagent:	Ref. #
Nitric Acid:	AB.716
Hydrochloric Acid:	AB.717
Hydrogen Peroxide:	

Digestion Tube Lot #: 3743
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC,corrected): 94
Final-Digestion Temp (ºC,corrected): 93

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
1284370	(MB)			50.0	50
1284371	(LCS)			50.0	50
1284325				50.0	50
	Comments:				50
					50
					50.0
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
1284367	(DUP)			50.0	50
1284368	(MS)	Parent Sample		50.0	50
1284369	(MSD)	1284325		50.0	50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.1	M15663
0.2	M15695
0.5	M15601
0.5	M15632

LCS Spike Amount (ml)	Spike Ref. #
0.1	M15663
0.2	M15695
0.5	M15601
0.5	M15632

Reviewed x

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M15806
ICV/LCSW ID: M15807

*Matrix: GW
Balance ID:

Prep Batch #:	128485
Prep Method:	7470a
Analyst:	MDS
Date:	01/31/2023
Start Time:	14:30

7470A= Hg Liquids
7471A= Hg Solids

End Date: 01/31/2023
End Time: 16:30

Digestion Tube Lot #: 24322023
Block Used: A
Cell Position for Temp. Check: B-4
Initial-DigestionTemp (ºC,corrected): 91.6
Final-Digestion Temp (ºC,corrected): 91.6
Additional KMnO4 added (ml):
Aqua Regia added (ml)
Calibration Stds: M15805

Reagent:	Ref. #
HNO3:	AB.719
H2SO4:	AB.718
NaCl/Hydrox.SO4:	M15811
KMnO4:	M15808
K2S2O8:	M15809
Aqua-Regia:	

	Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	1284467	(MB)			25.0	25
	1284468	(LCS)			25.0	25
	1283774				25.0	25
	1284325	**Comments:**			25.0	25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
	1284469	(DUP) if applicable			25.0	25
	1284470	(MS)	Parent Sample		25.0	25
	1284471	(MSD)	1283774		25.0	25
Leave >>		(DUP) if applicable				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP) if applicable				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100	M15807

B: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date: X

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 1-31-23	Data File: Dooresults	Date of review: 2/3/23
Cal Std ID: MIS790 LIMS # : 2685911, 12	Analyst: [illegible]	Reviewer: MDS	Approved? (Yes) No

Is Audit Trail turned on or Manual Manipulations addressed? (Yes) / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Prep Batch Check

QC Parameters : 6010 / 200.7 / OSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: ~~R ≥ 0.995~~ / r > 0.998	✓		✓		
2) ICV: (90-110%) / 95-105%	✓		✓		
2) ICVLL: 70-130% / ~~80-120%~~	✓		✓		
3) ICB: < 3X IDL / <LOD / (<LOQ)	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% / 80-120%					
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	—		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)	—		✓		
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	Comments:
Prep Batch ID#: 128487 Dig. Meth. 200.2	—		✓		
LCS - generated limits or project specific limits	—		✓		
MB - <LOD or ≤ ½ RL	—	✓	✓	✓	K ≥ LOD & ½ RL Sample > 10x MB, No flag
Spiked samples in batch:					As ≥ LOD & ½ RL, Sample < 10x or No flag.
a) 1784325 matrix = GW	✓	✓	✓	✓	Al, Sb, Fe, Mn, Tl Be MS, MSD fail
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					Fe, Mn, Tl (M)
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:		THERMO M SERIES AA		Hydra II Hg ANALYZER		
Analysis Date: 2/2/23	Data File: 020223w	Date Review: 2/3/23		Analyte: Hg		
Cal Std ID: M15805	LIMS #: 268967	Analyst: MDS	Reviewer:	Approved?	Yes	No

Prep Batch Check ✓

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		✓		
2) ICV: 90-110% 95-105%	✓		✓		
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓		✓		
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓		✓		
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)					
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 128485 Dig. Meth. 7470a	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD / <2.2X LOD / ≤ ½RL	✓		✓		
Spiked samples in batch:					
a) 1283714 matrix = GW	✓	✓	✓	✓	Dup invalid MS/MSD Failed "M"
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
1/27/23	0819 / 2026	JL	012723	DODCAL u	268853 268847,48 268854 268849,50 268851,52 268824	250	M15480 M15481 M15482	V5472	M15483,84 M15574,75,76
1/30/23	1237 / 2123	JL	013023	DODCAL u	268851,52 268908 268911,12 268909,10	250	M15480 M15481 M15482	V5474 V5473	M15483,84 M15574,75,76
2/1/23	1249 / 2135	JL	020123	DODCAL u	268963 268934 268964	250	M15796 M15797 M15798	V5475	M15799, M15800 M15801 M15802
2/2/23	/								
	/								
	/								
	/								
	/								
	/								
	/								
	/								
	/								
	/								

Comments: _____

_____

Checked By / Date: _____

CT Laboratories

Mercury Analyzer Instrument Run Log

Instrument ID: Cetac M-6000A

Analysis Date	Start Time	End Time	Analyst	LIMS Run # (s)	Method File ID #	Cal. Std. ID #	Lamp Current (mA)	Analysis Tube Lot #	Comments
12/29/22	0749	0956	MDS	268234	1229225	M15737	6.902	6121219	$SnCl_2$: M15744
12/30/22	0940	1318	MDS	268236, 268237, 268238, 268243	123022W	M15737	6.832	6121219	$SnCl_2$: M15744
1/10/23	1244	1357	MDS	268445, 268446	011023W	M15748	6.913	6121219	$SnCl_2$: M15755
1/11/23	0945	1042	MDS	268447	0111235	M15748	6.905	6121219	$SnCl_2$: M15755
1/12/23	1134	1243	MDS	268497, 268498	011223W	M15748	6.957	6121219	$SnCl_2$: M15755
1/18/23	0919	1238	MDS	268617, 268618, 268619 268613, 268614, 268615, 268616,	011823W	M15756	7.049	6121219	$SnCl_2$: M15763
1/19/23	1009	1109	MDS	268625	0119235	M15756	7.104	6121219	$SnCl_2$: M15763
1/25/23	0855	1117	MDS	268773, 268774 268769, 268770, 268771, 268772	012523W	M15771	7.144	6121219	$SnCl_2$: M15778
1/26/23	1009	1147	MDS	268789, 268790, 268788, 268787	0126235	M15771	7.130	6121219	$SnCl_2$: M15778
2/1/23	1010	1136	MDS	268789, 268961, 268960	0201235	M15805	7.251	6121219	$SnCl_2$: M15812
2/2/23	0950	1218	MDS	268970 268774, 268967, 268969, 268968	020223W	M15805	7.214	6121219	$SnCl_2$: M15812

Reviewed By/Date:_____

Type	Date/Time	Message	User name	Application	Sequence Name
	01/27/2023 18:09:49	Running I1283766 (45)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:17:12	Running dup1283766 (46)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:24:53	Running msw1283766 (47)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:32:00	Running pdsw1283766 (48)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:39:01	Running lcsw128466 (49)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:46:10	Running mbw128466 (50)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:53:32	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	01/27/2023 18:59:49	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:06:33	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:13:56	Running 1283767 (51)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:21:38	Running I1283767 (52)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:29:03	Running dup1283767 (53)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:36:45	Running msw1283767 (54)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:43:53	Running pdsw1283767 (55)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:50:52	Running 1283173 (56)	NAH	Analyst	S_DOD Calibration
	01/27/2023 19:58:16	Running 1283174 (57)	NAH	Analyst	S_DOD Calibration
	01/27/2023 20:05:50	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	01/27/2023 20:13:06	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	01/27/2023 20:19:24	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	01/27/2023 20:26:08	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	01/27/2023 20:33:30	Plasma off	NAH	iTEVA Control Center	
	01/27/2023 20:33:30	Plasma extinguished successfully	NAH	Analyst	
	01/27/2023 20:33:32	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	01/30/2023 07:10:32	Plasma On	NAH	iTEVA Control Center	
	01/30/2023 07:10:37	Plasma ignition successful	NAH	Analyst	
	01/30/2023 07:11:24	D33534 - Debug:Wavelength check : x = -0.973, y =-0.230	NAH	Analyst	
	01/30/2023 12:42:18	Plasma extinguished successfully	NAH	Analyst	
	01/30/2023 12:42:19	Plasma off	NAH	iTEVA Control Center	
	01/31/2023 07:05:05	Plasma On	NAH	iTEVA Control Center	
	01/31/2023 07:05:11	Plasma ignition successful	NAH	Analyst	
	01/31/2023 07:05:58	D33534 - Debug:Wavelength check : x = -0.847, y =-0.347	NAH	Analyst	
	01/31/2023 12:36:54	Sequence Started	NAH	Analyst	S_DOD Calibration
	01/31/2023 12:36:54	Autosampler Run Started	NAH	Analyst	
	01/31/2023 12:37:15	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	01/31/2023 12:44:39	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	01/31/2023 12:52:03	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	01/31/2023 12:59:28	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:06:53	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:14:16	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:21:38	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:28:51	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:35:57	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:42:27	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:49:16	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	01/31/2023 13:57:13	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:04:41	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:12:26	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:20:32	Running Ag 1000 Ba 20000 (15)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:28:05	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:35:27	Running icv (16)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:42:30	Running icv (16)	NAH	Analyst	S_DOD Calibration
	01/31/2023 14:49:31	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	01/31/2023 14:56:51	Running icb (17)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:04:13	Running icb (17)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:11:35	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:18:53	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:26:15	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:33:06	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:40:28	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:47:51	Running lcsw128466 (2)	NAH	Analyst	S_DOD Calibration
	01/31/2023 15:55:10	Running mbw128466 (3)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:02:33	Running 1283767 (4)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:10:15	Running l1283767 (5)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:17:51	Running dup1283767 (6)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:25:33	Running msw1283767 (7)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:32:45	Running pdsw1283767 (8)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:39:29	Running lcsw128482 (9)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:46:49	Running mbw128482 (10)	NAH	Analyst	S_DOD Calibration
	01/31/2023 16:54:13	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:00:34	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:07:20	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:14:44	Running 1284325 (11)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:22:05	Running l1284325 (12)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:29:40	Running dup1284325 (13)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:37:01	Running msw1284325 (14)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:43:57	Running msdw1284325 (15)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:50:53	Running pdsw1284325 (16)	NAH	Analyst	S_DOD Calibration
	01/31/2023 17:57:34	Running lcsw128480 (17)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:04:54	Running mbw128480 (18)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:12:16	Running 1284050 (19)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:19:46	Running msw1284050 (20)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:26:41	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:33:03	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:39:52	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:47:16	Running msdw1284050 (21)	NAH	Analyst	S_DOD Calibration
	01/31/2023 18:54:12	Running pdsw1284050 (22)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:01:10	Running 1284084 (23)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:08:44	Running 1284087 (24)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:16:05	Running 1284090 (25)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:23:32	Running lcss128479 (26)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:30:31	Running mbs128479 (27)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:37:54	Running 1283801 (28)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:45:24	Running mss1283801 (29)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:52:21	Running msds1283801 (30)	NAH	Analyst	S_DOD Calibration
	01/31/2023 19:59:13	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:05:34	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:12:20	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:19:44	Running pdss1283801 (31)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:26:33	Running 1284147 (32)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:33:51	Running 1284148 (33)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:41:12	Running 1284149 (34)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:48:33	Running 1284150 (35)	NAH	Analyst	S_DOD Calibration
	01/31/2023 20:55:49	Running 1284151 (36)	NAH	Analyst	S_DOD Calibration
	01/31/2023 21:03:09	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration

Standard Log #:	M15822	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	02/08/2023	Expiration Date:	06/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M15222	1000	0.01
As	2	M15223	1000	0.1
Pb	2	M15289 (0.1	10000	0.01
Sb	2	M15220	1000	0.1
Se	2	M15217	1000	0.1
Tl	2	M15782	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15817	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/07/2023	Expiration Date:	03/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15818	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/07/2023	Expiration Date:	03/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15819	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/07/2023	Expiration Date:	02/08/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15820	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/08/2023	Expiration Date:	03/08/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15821	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/08/2023	Expiration Date:	03/08/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15814	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/07/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15815	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/07/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15816	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/07/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15813	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	02/06/2023	Expiration Date:	06/2023

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M15223	10,000
Pb	1	1000	M15289	10,000
Tl	1	1000	M15782	10,000
Se	1	1000	M15217	10,000
Sb	1	1000	M15220	10,000
Ag	0.1	1000	M15222	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

		Instrument:	CETAC
Standard Log #:	M15810	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/31/2023	Expiration Date:	02/01/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15811	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/01/2023	Expiration Date:	03/01/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15812	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/01/2023	Expiration Date:	03/01/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15807	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/31/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15808	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/31/2023	Expiration Date:	02/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15809	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/31/2023	Expiration Date:	02/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15805	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/31/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15806	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/31/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M15804	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL LOQ SOLID
Prep Date:	02/01/2023	Expiration Date:	03/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15787	**10000**	4
As	40	M15223	1000	2
Ba	40	M15540	1000	2
Be	8	M15767	1000	0.4
Ca	1000	M15783	**10000**	5
Cd	10	M15766	1000	0.5
Co	20	M15788	1000	1
Cr	20	M15791	**10000**	0.1
Cu	20	M15780	**10000**	0.1
Fe	600	M15522	**10000**	3
Mg	1000	M15790	**10000**	5
Mn	20	M15789	**10000**	0.1
Mo	20	M15785	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15782	1000	2
V	20	M15781	1000	1.0
Zn	20	M15114	**10000**	0.1
Na	10000	M15764	**10000**	50
K	10000	M15631	**10000**	50
B	40	M15523	1000	2
Si	xxxxxxxxx	xxxxxxx	1000	xxxxxx
Li	xxxxxxxxx	xxxxxxx	1000	xxxxxx
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	xxxxxxx	xxxxxxxxxx	1000	xxxxxx
S	xxxxxxxx	xxxxxxxxxx	**10000**	xxxxxx

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15803	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL LOQ LIQUID
Prep Date:	02/01/2023	Expiration Date:	03/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15787	**10000**	0.6
As	40	M15223	1000	0.2
Ba	4	M15540	1000	0.2
Be	8	M15767	1000	0.4
Ca	100	M15783	**10000**	0.5
Cd	2	M15766	1000	0.1
Co	5	M15788	1000	0.25
Cr	5	M15791	**10000**	0.025
Cu	40	M15780	**10000**	0.2
Fe	80	M15522	**10000**	0.4
Mg	40	M15790	**10000**	0.2
Mn	5	M15789	**10000**	.025
Mo	5	M15785	1000	0.25
Ni	5	M15095	1000	0.25
Pb	10	M15045	**10000**	0.05
Sb	20	M15220	1000	1.0
Se	40	M15217	1000	2.0
Tl	40	M15782	1000	2.0
V	5	M15781	1000	0.25
Zn	20	M15114	**10000**	0.1
Na	700	M15764	**10000**	3.5
K	500	M15631	**10000**	2.5
B	40	M15523	1000	2.0
Si	200	M15792	1000	10
Li	20	M15504	1000	1.0
Sr	20	M15526	1000	1.0
Sn	40	M15502	1000	2.0
Ti	xxxxx	xxxxxxxx	1000	xxxxxx
S	800	M15786	**10000**	4

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15802	Standard:	ICV Std. all
Analyst:	NAH	Concentrations:	**12,000 ug/L** Al **10,000 ug/L** Ca, Mg **5000 ug/L** Fe **2000 ug/L** As, Ba, Se, Tl **500 ug/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 ug/L** Cu **200 ug/L** Cr **50 ug/L** Ag, Be, Cd **100 mg/L Na,K,S** 500 ug/L Si
Prep Date:	02/01/2023	Expiration Date:	06/2023
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M15729, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe) M15717, **0.5 mL** Mo (1000 mg/L) M15785, **0.5 mL** B (1000 mg/L) M15523, **0.5 mL** Sr (1000 mg/L) M15526, **0.5 mL** Li (1000 mg/L) M15504, **0.5 mL** Sn (1000 mg/L) M15502, **0.5 mL** Ti (1000 mg/L) xxxxxxxxxx, xxxxxxxxxx, **0.5 mL** Si (1000 mg/L) M15542, **10 mL** S (10000 mg/L) M15786, **10 ml** k 10000 mg/L) M15632, **10 ml** Na (10000 /L) M15664		

		Instrument:	ICP 6500
Standard Log #:	M15800	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	02/01/2023	Expiration Date:	06/2023
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15505 and 15 **mL** 10000 mg/L Fe M15660 5.0 **mL** 1000 mg/L V M15781 5.0 **mL** 1000 mg/L Ce M15499 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15801	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	02/01/2023	Expiration Date:	06/2023
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15505, **15 mL** Fe (10,000 mg/L) M15660, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15630, **2.5 mLs Na 10,000 ug/mL** M15764 ,**2.5 mLs k 10,000 ug/mL** M15765 **2.5 mLs S 10,000 ug/mL** M15501, **0.5 mls Si 1000 ug/mL** M15792 and brought up to volume with milli-Q .		

MRL BASE STD M15799 Analyst NAH

Prep Date 02/01/2023

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	03/2023
Al	400	M15787	10000	2	x
Ba	10	M15540	1000	0.5	x
Be	4	M15767	1000	0.2	x
Cd	5	M15766	1000	0.25	x
Co	10	M15788	1000	0.5	x
Cr	10	M15791	10000	0.05	x
Cu	10	M15780	10000	0.05	x
Mg	500	M15790	10000	2.5	x
Mn	10	M15789	10000	0.05	x
Mo	10	M15785	1000	0.5	x
Ni	10	M15095	1000	0.5	x
Pb	10	M15045	10000	0.05	x
Sb	20	M15220	1000	1	x
V	10	M15781	1000	0.5	x
Zn	10	M15114	10000	0.05	x
K	1000	M15631	10000	5	x
Na	1000	M15764	10000	5	2000 ug/L 10 mls of stanard
As	20	M15223	1000	1	x
Ca	500	M15783	10000	2.5	x
Fe	300	M15522	10000	1.5	x
Se	20	M15217	1000	1	x
Tl	20	M15782	1000	1	x
Si	100	M15792	1000	5	x
B	20	M15523	1000	1	x
Li	20	M15504	1000	1	x
W	50	xxxxxxxxxx	1000	2.5	x
Ti	10	M15503	1000	0.5	x
Sr	10	M15526	1000	0.5	x
Sn	50	M15502	1000	2.5	x
S	300	M15786	10000	1.5	03/2023

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15797	Standard:	CCV1
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/01/2023	Expiration Date:	09/2023
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15630 and **5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and 5 ml M15793 Si and 5 ml 10,000 mg/L M15765 K, M15764 Na, M15501 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15798	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/01/2023	Expiration Date:	09/2023
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15630 and 0.5 **mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and .5 ml M15793 Si and 1 ml 10,000 mg/L M15765 K, M15764 Na, M15501 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15796	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	02/01/2023	Expiration Date:	03/2023

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15630, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and **1 mL** of Si (1000 mg/L) M15792 and 1 mL M15499 Ce and 1 ml M15643 Hg and 0.1 ml of 10,000 mg/L M15631 K and M15664 Na and M15786 S and M15784 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15780, **10 mL** of Mn (10,000 mg/L) M15789, **10 mL** of Cr (10,000 mg/L) M15791, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M15114.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15790, **10 mL** of Fe (10,000 mg/L) M15660, **10 mL** of Ca (10,000 mg/L) M15783 and **10 mL** Al (10,000 mg/L) M15787 ,10 mL of Na (10000) M15764, 10 mL K (10,000) M15765, 10 mL S (10,000) M15501 ,10 mL P (10,1000), M15784 10 mL Si (1000) M15792.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

		Instrument:	GFAA
Standard Log #:	M15793	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/27/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15794	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/27/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15795	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/27/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15789	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1283873-5
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M321

Standard ID#:	M15790	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1194653-34
Expiration Date (if any):	07/2024	Catalog #:	4400-10M311

Standard ID#:	M15791	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1242583-7
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M121

Standard ID#:	M15792	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	01/26/2023	Lot #:	1285486-10
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000504F

Standard ID#:	M15784	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1257053
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M391

Standard ID#:	M15785	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 ug/mL
Date Received:	01/26/2023	Lot #:	1228777-28
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000343

Standard ID#:	M15786	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1205121-25
Expiration Date (if any):	07/2024	Catalog #:	4400-10M544

Standard ID#:	M15787	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1257043-3
Expiration Date (if any):	07/2024	Catalog #:	4400-10M11

Standard ID#:	M15788	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 ug/mL
Date Received:	01/26/2023	Lot #:	1222807-35
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000131

Standard ID#:	M15779	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	01/26/2023	Lot #:	7-008AJ
Expiration Date (if any):	01/30/2024	Catalog #:	XCTWI-4-500

Standard ID#:	M15780	Vendor:	CPI
Analyst:	NAH	Chemical:	10000 ug/mL
Date Received:	01/26/2023	Lot #:	1207839-25
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M141

Standard ID#:	M15781	Vendor:	CPI
Analyst:	NAH	Chemical:	V 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1220562-41
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000651

Standard ID#:	M15782	Vendor:	CPI
Analyst:	NAH	Chemical:	TL 1000 UG/Ml
Date Received:	01/26/2023	Lot #:	1239312-22
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000581

Standard ID#:	M15783	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1268108-9
Expiration Date (if any):	07/2024	Catalog #:	4400-10M91

Standard Log #:	M15774	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/24/2023	Expiration Date:	02/24/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15775	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/24/2023	Expiration Date:	02/24/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15776	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/24/2023	Expiration Date:	01/25/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15777	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/25/2023	Expiration Date:	02/25/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15778	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/25/2023	Expiration Date:	02/25/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15771	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/24/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15772	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/24/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15773	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/24/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15768	Vendor:	Thermo Scientific
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	01/23/2023	Lot #:	A0442803
Expiration Date (if any):		Catalog #:	424185000

Standard Log #:	M15769	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/23/2023	Expiration Date:	01/23/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15770	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/23/2023	Expiration Date:	01/23/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard ID#:	M15764	Vendor:	CPI International
Analyst:	NAH	Chemical:	Sodium 10000 mg/L
Date Received:	01/19/2023	Lot #:	4400-10M521
Expiration Date (if any):	02/2024	Catalog #:	1122472-51

Standard ID#:	M15765	Vendor:	CPI International
Analyst:	NAH	Chemical:	Potassium 10000 mg/L
Date Received:	01/19/2023	Lot #:	4400-10M411
Expiration Date (if any):	02/2024	Catalog #:	1137797-61

Standard ID#:	M15766	Vendor:	CPI International
Analyst:	NAH	Chemical:	Cadmium 1000 mg/L
Date Received:	01/19/2023	Lot #:	1144943-25
Expiration Date (if any):	02/2024	Catalog #:	S4400-100081

Standard ID#:	M15767	Vendor:	CPI International
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	01/19/2023	Lot #:	1143802-45
Expiration Date (if any):	02/2024	Catalog #:	S4400-100051

Standard Log #:	M15759	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/17/2023	Expiration Date:	02/17/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15760	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/17/2023	Expiration Date:	02/17/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15761	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/17/2023	Expiration Date:	01/18/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15762	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/18/2023	Expiration Date:	02/18/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15763	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/18/2023	Expiration Date:	02/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15756	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/17/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15757	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/17/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15758	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/17/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15751	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/09/2023	Expiration Date:	02/09/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15752	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/09/2023	Expiration Date:	02/09/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15753	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/09/2023	Expiration Date:	01/10/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15754	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/10/2023	Expiration Date:	02/10/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15755	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/10/2023	Expiration Date:	02/10/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15748	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/09/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15749	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/09/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15750	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/09/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15745	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/28/2022	Expiration Date:	12/28/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15746	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/28/2022	Expiration Date:	12/28/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15747	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/28/2022	Expiration Date:	12/28/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15740	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/27/2022	Expiration Date:	01/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15741	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/27/2022	Expiration Date:	01/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15742	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/27/2022	Expiration Date:	12/28/2022
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15743	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/28/2022	Expiration Date:	01/28/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15744	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/28/2022	Expiration Date:	01/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15737	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/27/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15738	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/27/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15739	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/27/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15733	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/19/2022	Expiration Date:	01/19/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15734	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/19/2022	Expiration Date:	01/19/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15735	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/20/2022	Expiration Date:	01/20/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15736	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/20/2022	Expiration Date:	01/20/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15730	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/19/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15731	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/19/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15732	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/19/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15729	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12/19/2022	Lot #:	59-138CR
Expiration Date (if any):	12/30/2023	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M15728	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/15/2022	Expiration Date:	12/16/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15723	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/12/2022	Expiration Date:	01/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15724	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/12/2022	Expiration Date:	01/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15725	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/13/2022	Expiration Date:	12/14/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15726	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/13/2022	Expiration Date:	01/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15727	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/13/2022	Expiration Date:	01/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15720	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/12/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15721	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/12/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15722	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/12/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15717	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12/07/2022	Lot #:	5-109AJ
Expiration Date (if any):	12/30/2023	Catalog #:	XCTWI-1-500

Standard Log #:	M15718	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/08/2022	Expiration Date:	1208/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15719	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/08/2022	Expiration Date:	12/08/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15712	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/06/2022	Expiration Date:	01/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15713	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/06/2022	Expiration Date:	01/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15714	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/06/2022	Expiration Date:	12/07/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15715	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/07/2022	Expiration Date:	01/07/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15716	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/07/2022	Expiration Date:	01/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15709	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/06/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15710	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/06/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15711	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/06/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15707	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/02/2022	Lot #:	M227-04
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15708	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/02/2022	Lot #:	M227-04
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	GFAA
Standard Log #:	M15704	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	12/02/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15705	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	12/02/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15706	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	12/02/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15699	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/28/2022	Expiration Date:	12/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15700	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/28/2022	Expiration Date:	12/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15701	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/28/2022	Expiration Date:	11/29/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15702	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/29/2022	Expiration Date:	12/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15703	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/29/2022	Expiration Date:	12/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15696	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/28/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15697	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/28/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15698	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/28/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15695	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/22/2022	Lot #:	59-114CR
Expiration Date (if any):	11/30/2023	Catalog #:	XSPIKE-1-250

Standard ID#:	M15693	Vendor:	SSI PRODUCTS LLC
Analyst:	BMM	Chemical:	TCLP AWR FILTERS 110mm
Date Received:	11/02/2022	Lot #:	400027
Expiration Date (if any):		Catalog #:	

Standard ID#:	M15694	Vendor:	SSI PRODUCTS LLC
Analyst:	BMM	Chemical:	TCLP AWR FILTERS 150mm
Date Received:	11/02/2022	Lot #:	400194
Expiration Date (if any):		Catalog #:	

Standard Log #:	M15688	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/15/2022	Expiration Date:	12/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15689	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/15/2022	Expiration Date:	12/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15690	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/15/2022	Expiration Date:	11/16/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15691	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/16/2022	Expiration Date:	12/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15692	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/16/2022	Expiration Date:	12/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15685	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/15/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15686	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/15/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15687	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/15/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15681	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/07/2022	Expiration Date:	11/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15682	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/07/2022	Expiration Date:	11/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15683	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	11/07/2022	Expiration Date:	04/07/2023
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC438 and brought up to volume.		

Standard Log #:	M15684	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	11/07/2022	Expiration Date:	04/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.716 and brought up to volume.		

Standard Log #:	M15676	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/07/2022	Expiration Date:	12/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15677	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/07/2022	Expiration Date:	12/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15678	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/07/2022	Expiration Date:	11/08/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15679	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/08/2022	Expiration Date:	12/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15680	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/08/2022	Expiration Date:	12/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15673	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/07/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15674	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/07/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15675	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/07/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15668	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/31/2022	Expiration Date:	11/31/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15669	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/31/2022	Expiration Date:	11/31/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15670	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/31/2022	Expiration Date:	11/01/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15671	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/2/2022	Expiration Date:	12/2/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15672	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/2/2022	Expiration Date:	12/2/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15665	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/31/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15666	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/31/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15667	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/31/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15660	Vendor:	CPI
Analyst:	NAH	Chemical:	Iron 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1240670-1
Expiration Date (if any):	02/2024	Catalog #:	4400-10M261

Standard ID#:	M15661	Vendor:	CPI
Analyst:	NAH	Chemical:	Magnesium 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1194653.23
Expiration Date (if any):	02/2024	Catalog #:	4400-10M311

Standard ID#:	M15662	Vendor:	CPI
Analyst:	NAH	Chemical:	Phosphorus 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1257053-2
Expiration Date (if any):	04/2024	Catalog #:	S4400-10M391

Standard ID#:	M15663	Vendor:	CPI
Analyst:	NAH	Chemical:	Mollybenum 1000 ug/mL
Date Received:	10/31/2022	Lot #:	1228777-7
Expiration Date (if any):	04/2024	Catalog #:	S4400-1000343

Standard ID#:	M15664	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1122472-51
Expiration Date (if any):	04/2024	Catalog #:	4400-10M521

		Instrument:	CETAC
Standard Log #:	M15659	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/26/2022	Expiration Date:	10/27/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15655	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/25/2022	Expiration Date:	11/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15656	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/25/2022	Expiration Date:	11/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15657	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/26/2022	Expiration Date:	11/26/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15658	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/26/2022	Expiration Date:	11/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15652	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/25/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15653	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/25/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15654	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/25/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15647	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/18/2022	Expiration Date:	11/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15648	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/18/2022	Expiration Date:	11/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15649	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/18/2022	Expiration Date:	10/19/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15650	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/19/2022	Expiration Date:	11/19/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15651	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/19/2022	Expiration Date:	11/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15644	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/18/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15645	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/18/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15646	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/18/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15643	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Mercury 1000µg/mL
Date Received:	10/18/2022	Lot #:	CL13-88HGY
Expiration Date (if any):	10/30/2023	Catalog #:	CLHG4-2Y

Standard Log #:	M15638	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/11/2022	Expiration Date:	11/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15639	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/11/2022	Expiration Date:	11/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15640	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/11/2022	Expiration Date:	10/12/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15641	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/12/2022	Expiration Date:	11/12/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15642	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/12/2022	Expiration Date:	11/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15635	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/11/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15636	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/11/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15637	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/11/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15634	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	10/11/2022	Lot #:	59-092CR
Expiration Date (if any):	10/30/2023	Catalog #:	XSPIKE-1-500

Standard ID#:	M15629	Vendor:	CPI International
Analyst:	NAH	Chemical:	Hg 1000 ug/mL
Date Received:	10/05/2022	Lot #:	1141387-57
Expiration Date (if any):	04/2024	Catalog #:	S4400-1000331

Standard ID#:	M15630	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	10/05/2022	Lot #:	3-134EL
Expiration Date (if any):	09/30/2023	Catalog #:	XCTWI-5-500

Standard ID#:	M15631	Vendor:	CPI International
Analyst:	NAH	Chemical:	K 10000 ug/mL
Date Received:	10/05/2022	Lot #:	1137797-61
Expiration Date (if any):	04/2024	Catalog #:	4400-10M411

Standard ID#:	M15632	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 ug/Ml
Date Received:	10/05/2022	Lot #:	1137797-60
Expiration Date (if any):	04/2024	Catalog #:	4400-10M411-500

Standard ID#:	M15633	Vendor:	GFS Chemicals
Analyst:	NAH	Chemical:	Amco Clear turb std
Date Received:	10/05/2022	Lot #:	22160094
Expiration Date (if any):	10/2023	Catalog #:	8008

		Instrument:	CETAC
Standard Log #:	M15628	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/04/2022	Expiration Date:	10/05/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15624	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/03/2022	Expiration Date:	11/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15625	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/03/2022	Expiration Date:	11/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15626	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/04/2022	Expiration Date:	11/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15627	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/04/2022	Expiration Date:	11/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15621	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15622	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15623	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15617	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/03/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15618	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/03/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15619	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/03/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15620	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	10/03/2022	Lot #:	276713
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard ID#:	M15615	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/15/2022	Lot #:	M138-15
Expiration Date (if any):		Catalog #:	LC25170

Standard ID#:	M15616	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/15/2022	Lot #:	M138-15
Expiration Date (if any):		Catalog #:	LC25170

Standard Log #:	M15610	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/26/2022	Expiration Date:	10/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15611	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/26/2022	Expiration Date:	10/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15612	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/26/2022	Expiration Date:	09/27/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15613	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/27/2022	Expiration Date:	10/27/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15614	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/27/2022	Expiration Date:	10/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15607	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15608	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15609	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/26/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15604	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/27/2022	Expiration Date:	09/27/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15605	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/27/2022	Expiration Date:	09/27/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15606	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/27/2022	Expiration Date:	09/27/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard ID#:	M15603	Vendor:	Supelco
Analyst:	NAH	Chemical:	100 NTU formazin
Date Received:	09/23/2022	Lot #:	LRAD2638
Expiration Date (if any):	05/2024	Catalog #:	TURB100-100ML

Standard ID#:	M15601	Vendor:	Spec Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	09-19-2022	Lot #:	3-097EL
Expiration Date (if any):	09-30-2023	Catalog #:	XCTWI-1-500

Standard ID#:	M15602	Vendor:	Lab Chem
Analyst:	NAH	Chemical:	4000 NTU
Date Received:	09-15-2022	Lot #:	M201-23
Expiration Date (if any):	07/28/2023	Catalog #:	LC262901

Standard Log #:	M15596	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/13/2022	Expiration Date:	10/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15597	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/13/2022	Expiration Date:	10/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15598	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/13/2022	Expiration Date:	09/14/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15599	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/14/2022	Expiration Date:	10/14/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15600	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/14/2022	Expiration Date:	10/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15593	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/13/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15594	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/13/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15595	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/13/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15588	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/07/2022	Expiration Date:	10/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15589	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/07/2022	Expiration Date:	10/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15590	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/07/2022	Expiration Date:	09/08/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15591	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/08/2022	Expiration Date:	10/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15592	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/08/2022	Expiration Date:	10/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15585	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/07/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15586	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/07/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15587	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/07/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15584	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Sodium Chloride
Date Received:	09/06/2022	Lot #:	218977
Expiration Date (if any):		Catalog #:	S271

Standard Log #:	M15582	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/31/2022	Expiration Date:	09/31/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15583	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/31/2022	Expiration Date:	09/31/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15578	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/30/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15579	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/30/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15580	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/30/2022	Expiration Date:	09/30/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15581	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/30/2022	Expiration Date:	09/30/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M15575	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	08/31/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15505 and 15 **mL** 10000 mg/L Fe M15522 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M15499 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15576	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	08/31/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15505 , **15 mL** Fe (10,000 mg/L) M15522 , **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15259 , **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15455 , **2.5 mLs Na 10,000 ug/mL** M15528 ,**2.5 mLs k 10,000 ug/mL** M15477 **2.5 mLs S 10,000 ug/mL** M15395 , **0.5 mls Si 1000 ug/mL** M15088 and brought up to volume with milli-Q .		

		Instrument:	HydraII
Standard Log #:	M15577	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/30/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

MRL BASE STD M15574

Analyst NAH

Prep Date 08/31/2022

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	01/2023
Al	400	M15397	10000	2	--
Ba	10	M15540	1000	0.5	--
Be	4	M15091	1000	0.2	
Cd	5	M15098	1000	0.25	
Co	10	M15019	1000	0.5	
Cr	10	M15027	10000	0.05	
Cu	10	M15021	10000	0.05	
Mg	500	M15174	10000	2.5	
Mn	10	M15023	10000	0.05	
Mo	10	M15170	1000	0.5	
Ni	10	M15095	1000	0.5	
Pb	10	M15045	10000	0.05	
Sb	20	M15045	1000	1	
V	10	M15020	1000	0.5	
Zn	10	M15114	10000	0.05	
K	1000	M15477	10000	5	
Na	1000	M15528	10000	5	
As	20	M15223	1000	1	
Ca	500	M15026	10000	2.5	
Fe	300	M15169	10000	1.5	
Se	20	M15217	1000	1	
Tl	20	M15221	1000	1	
Si	100	M15171	1000	5	
B	20	M15523	1000	1	
Li	20	M15504	1000	1	
W	50	XXXXXX	1000	2.5	
Ti	10	M15221	1000	0.5	
Sr	10	M15526	1000	0.5	
Sn	50	M15502	1000	2.5	
S	300	M15501	10000	1.5	

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M15569	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/23/2022	Expiration Date:	09/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15570	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/23/2022	Expiration Date:	09/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15571	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/23/2022	Expiration Date:	09/23/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15572	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/24/2022	Expiration Date:	09/24/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15573	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/24/2022	Expiration Date:	09/24/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15566	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15567	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15568	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/23/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15564	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/15/2022	Expiration Date:	09/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15565	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/16/2022	Expiration Date:	09/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

Standard ID#:	M15563	Vendor:	SCP Science
Analyst:	MDS	Chemical:	Palladium/Magnesium Matrix Modifier
Date Received:	08/15/2022	Lot #:	S220707011
Expiration Date (if any):	07/2024	Catalog #:	140-003-192

Standard Log #:	M15562	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL spiking soln
Prep Date:	08/12/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15397	**10000**	4
As	40	M15223	1000	2
Ba	20	M15540	1000	1
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15528	**10000**	50
K	10000	M15477	**10000**	50
B	40	M15523	1000	2
Si	200	M15171	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	20	M15503	1000	1
S	400	M15501	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15561	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ solid QSM
Prep Date:	08/12/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15397	**10000**	4
As	40	M15223	1000	2
Ba	40	M15540	1000	2
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15528	**10000**	50
K	10000	M15477	**10000**	50
B	40	M15523	1000	2
Si	200	M15171	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	200	M15221	1000	1
S	400	M15501	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15560	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	08/12/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15397	**10000**	0.6
As	40	M15223	1000	0.2
Ba	4	M15540	1000	0.2
Be	8	M15091	1000	0.4
Ca	100	M15026	**10000**	0.5
Cd	2	M15098	1000	0.1
Co	5	M15019	1000	0.25
Cr	5	M15027	**10000**	0.025
Cu	40	M15021	**10000**	0.2
Fe	80	M15169	**10000**	0.40
Mg	40	M15174	**10000**	0.20
Mn	5	M15023	**10000**	0.025
Mo	5	M15170	1000	0.25
Ni	5	M15095	1000	0.25
Pb	20	M15045	**10000**	0.10
Sb	20	M15220	1000	1
Se	20	M15217	1000	1
Tl	40	M15221	1000	2
V	5	M15020	1000	0.25
Zn	20	M15114	**10000**	0.10
Na	700	M15528	**10000**	3.5
K	500	M15477	**10000**	2.5
B	40	M15523	1000	2
Si	200	M15171	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	20	M15503	1000	1
S	400	M15501	**10000**	2

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M15559	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	08/10/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15555	Reagent:	SPLP ACID MIX
Analyst:	NAH		60/40 H_2SO_4 - HNO_3
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 200 mL volumetric flask, partially filled with DI H_2O, add **12 g** H_2SO_4 AB.713 and **8 g** HNO_3 AB.715 and bring up to volume using DI H_2O.		

Standard Log #:	M15556	Reagent:	SPLP EXTRACTION FLUID EAST #
Analyst:	NAH	pH:	4.20 ± 0.05
Prep Date:	08/11/2022 pH=4.21	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 4.20 ± 0.05 using 60/40 HNO_3 - H_2SO_4 M15555.		

		Instrument:	GFAA
Standard Log #:	M15557	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	08/10/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15558	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	08/10/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15551	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC438 and brought up to volume.		

Standard Log #:	M15552	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15553	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15554	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15546	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/10/2022	Expiration Date:	09/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15547	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/10/2022	Expiration Date:	09/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15548	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/10/2022	Expiration Date:	08/11/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15549	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/11/2022	Expiration Date:	09/11/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15550	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/11/2022	Expiration Date:	09/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15543	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15544	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15545	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/10/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15540	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/L
Date Received:	08/09/2022	Lot #:	1232359-4
Expiration Date (if any):	01/2024	Catalog #:	S4400-100041

Standard ID#:	M15541	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	08/09/2022	Lot #:	1137797-46
Expiration Date (if any):	01/2024	Catalog #:	4400-10M411

Standard ID#:	M15542	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	08/09/2022	Lot #:	1000504F
Expiration Date (if any):	01/2024	Catalog #:	1197533-32

		Instrument:	CETAC
Standard Log #:	M15539	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/05/2022	Expiration Date:	08/06/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15537	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/04/2022	Expiration Date:	09/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15538	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/04/2022	Expiration Date:	09/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15533	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15534	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/03/2022	Expiration Date:	09/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15535	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/03/2022	Expiration Date:	09/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15536	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/03/2022	Expiration Date:	08/04/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard ID#:	M15530	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/03/2022	Lot #:	59-034CR
Expiration Date (if any):	07/30/2023	Catalog #:	XSPIKE-1-250

		Instrument:	HydraII
Standard Log #:	M15531	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15532	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M15529	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/01/2022	Expiration Date:	09/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard ID#:	M15522	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1240670-1
Expiration Date (if any):	01/2024	Catalog #:	4400-10M261

Standard ID#:	M15523	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	07/29/2022	Lot #:	1209884-23
Expiration Date (if any):	01//2024	Catalog #:	S4400-100074

Standard ID#:	M15524	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	07/29/2022	Lot #:	1228777-7
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000343

Standard ID#:	M15525	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1112960-75
Expiration Date (if any):	01/2024	Catalog #:	4400-10M91

Standard ID#:	M15526	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	07/29/2022	Lot #:	1194650-12
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000531

Standard ID#:	M15527	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1144484-33
Expiration Date (if any):	01/2024	Catalog #:	4400-10M11

Standard ID#:	M15528	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1122472-51
Expiration Date (if any):	01/2024	Catalog #:	4400-10M521

Standard Log #:	M15517	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/27/2022	Expiration Date:	08/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15518	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/27/2022	Expiration Date:	08/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15519	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/27/2022	Expiration Date:	07/28/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15520	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/28/2022	Expiration Date:	08/28/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15521	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/28/2022	Expiration Date:	08/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15514	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/27/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15515	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/27/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15516	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/27/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15509	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/20/2022	Expiration Date:	08/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15510	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/20/2022	Expiration Date:	08/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15511	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/20/2022	Expiration Date:	07/21/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15512	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/21/2022	Expiration Date:	08/21/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15513	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/21/2022	Expiration Date:	08/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15506	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/20/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15507	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/20/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15508	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/20/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15505	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Interference-A
Date Received:	07/19/2022	Lot #:	3-137SGX
Expiration Date (if any):	07/30/2023	Catalog #:	INT_A1

Standard ID#:	M15499	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	07/14/2022	Lot #:	1237797-6
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000101

Standard ID#:	M15500	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	07/14/2022	Lot #:	12240670-1
Expiration Date (if any):	01/2024	Catalog #:	4400-10M261

Standard ID#:	M15501	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10,000 mg/L
Date Received:	07/14/2022	Lot #:	1205121-18
Expiration Date (if any):	01/2024	Catalog #:	4400-10M544

Standard ID#:	M15502	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/L
Date Received:	07/14/2022	Lot #:	1128650-39
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000613

Standard ID#:	M15503	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	07/14/2022	Lot #:	1195496-15
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000623

Standard ID#:	M15504	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	07/14/2022	Lot #:	1186016-18
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000291

Standard Log #:	M15495	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/12/2022	Expiration Date:	08/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15496	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/12/2022	Expiration Date:	07/13/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15497	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/13/2022	Expiration Date:	08/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15498	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/13/2022	Expiration Date:	08/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

Standard Log #:	M15494	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15489	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/06/2022	Expiration Date:	08/06/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15490	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/06/2022	Expiration Date:	07/07/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15491	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15492	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15493	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15486	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/06/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15487	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/06/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15488	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/06/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M15483	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	07/05/2022	Expiration Date:	02/2023
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) <15434, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15069, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14775, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) xxxxxxxx, **0.5 mL** Si (1000 mg/L) M15168, **0.5 mL** S (10000 mg/L) M14677, **0.5 mL** K (10000 mg/L) M15479, and **0.5 mL** Na (10000 mg/L) M15287		

		Instrument:	ICP 6500
Standard Log #:	M15484	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	07/05/2022	Expiration Date:	09/2022
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15068 and 15 **mL** 10000 mg/L Fe M15169 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

Standard ID#:	M15485	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Potassium Permanganate
Date Received:	06/30/2022	Lot #:	217686
Expiration Date (if any):		Catalog #:	P279-212

		Instrument:	ICP 6500
Standard Log #:	M15481	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **100,000 ug/L** K, Na, S. **500 µg/L** Ag, Be, Cd
Prep Date:	07/05/2022	Expiration Date:	02/2023
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15274 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M15259 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15482	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	07/05/2022	Expiration Date:	02/2023
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15274 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M15259 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15480	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	07/05/2022	Expiration Date:	02/28/2023

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15274, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15259 and **1 mL** of Si (1000 mg/L) M15398 and 1 mL M14682 Ce and 1 ml M15108 Hg and 0.1 ml of 10,000 mg/L M15477 K and M15287 Na and M15395 S and M15166 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15114, **10 mL** of Zn (10,000 mg/L) M15045.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15396, **10 mL** of Fe (10,000 mg/L) M15169, **10 mL** of Ca (10,000 mg/L) M15399 and **10 mL** Al (10,000 mg/L) M15397,10 mL of Na (10000) M15287, 10 mL K (10,000) M15477, 10 mL S (10,000) M15395,10 mL P (10,1000), M15166 10 mL Si (1000) M15398.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

Standard ID#:	M15477	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	06/28/2022	Lot #:	11337797-46
Expiration Date (if any):	12/2023	Catalog #:	4400-10M411

Standard ID#:	M15478	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	06/28/2022	Lot #:	1157358-27
Expiration Date (if any):	12/2023	Catalog #:	4400-10M671

Standard ID#:	M15479	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	06/28/2022	Lot #:	4400-10M411-500
Expiration Date (if any):	12/2023	Catalog #:	1137797-52

Standard Log #:	M15472	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/28/2022	Expiration Date:	07/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15473	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/28/2022	Expiration Date:	07/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15474	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/28/2022	Expiration Date:	06/29/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15475	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/29/2022	Expiration Date:	07/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15476	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/29/2022	Expiration Date:	07/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15469	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15470	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15471	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/28/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15467	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	06/23/2022	Lot #:	M151-22
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15468	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	06/23/2022	Lot #:	M151-22
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M15464	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/22/2022	Expiration Date:	06/22/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15465	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/22/2022	Expiration Date:	06/22/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15466	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/22/2022	Expiration Date:	06/22/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15459	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/21/2022	Expiration Date:	07/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15460	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/21/2022	Expiration Date:	07/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15461	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/21/2022	Expiration Date:	06/22/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15462	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/22/2022	Expiration Date:	07/22/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15463	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/22/2022	Expiration Date:	07/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15456	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15457	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15458	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/21/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M15454	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/15/2022	Expiration Date:	06/16/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard ID#:	M15455	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	06/15/2022	Lot #:	3-020AJ
Expiration Date (if any):	06/30/2023	Catalog #:	XCTIWI-5-500

Standard Log #:	M15449	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/14/2022	Expiration Date:	07/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15450	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/14/2022	Expiration Date:	07/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15451	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/14/2022	Expiration Date:	06/15/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15452	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/15/2022	Expiration Date:	07/15/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15453	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/15/2022	Expiration Date:	07/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15446	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/14/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15447	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/14/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15448	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/14/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15441	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/08/2022	Expiration Date:	07/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15442	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/08/2022	Expiration Date:	07/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15443	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/08/2022	Expiration Date:	06/09/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15444	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/09/2022	Expiration Date:	07/09/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15445	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/09/2022	Expiration Date:	07/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15438	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15439	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15440	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/08/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15435	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/06/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15436	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/06/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15437	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/06/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15433	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	06/02/2022	Lot #:	A0432704
Expiration Date (if any):		Catalog #:	198530010

Standard ID#:	M15434	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/02/2022	Lot #:	58-230CR
Expiration Date (if any):	May 30, 2023	Catalog #:	XSPIKE-1-500

Standard Log #:	M15428	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/01/2022	Expiration Date:	07/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15429	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/01/2022	Expiration Date:	07/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15430	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/01/2022	Expiration Date:	06/02/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15431	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/02/2022	Expiration Date:	07/02/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15432	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/02/2022	Expiration Date:	07/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15425	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15426	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15427	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/01/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15424	Vendor:	HPS Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	05/31/2022	Lot #:	2123812-500
Expiration Date (if any):	11/30/2023	Catalog #:	HP10M67-1-500

Standard Log #:	M15419	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/23/2022	Expiration Date:	06/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15420	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/24/2022	Expiration Date:	06/24/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15421	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/23/2022	Expiration Date:	05/24/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15422	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/24/2022	Expiration Date:	06/24/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15423	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/24/2022	Expiration Date:	06/24/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15416	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15417	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15418	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/23/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15411	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	06/17/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15412	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	06/17/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15413	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	05/18/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15414	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/18/2022	Expiration Date:	06/18/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15415	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/18/2022	Expiration Date:	06/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15408	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/17/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15409	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/17/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15410	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/17/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15404	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/10/2022	Expiration Date:	06/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15405	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/10/2022	Expiration Date:	06/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15406	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/11/2022	Expiration Date:	06/11/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15407	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/11/2022	Expiration Date:	06/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15401	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15402	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15403	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/10/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15395	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1154439-14
Expiration Date (if any):	10/2023	Catalog #:	4400-10M544

Standard ID#:	M15396	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1191653-5
Expiration Date (if any):	10/2023	Catalog #:	4400-10M311

Standard ID#:	M15397	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1144484-28
Expiration Date (if any):	10/2023	Catalog #:	4400-10M11

Standard ID#:	M15398	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	05/03/2022	Lot #:	1197533-32
Expiration Date (if any):	10/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15399	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1112960-63
Expiration Date (if any):	10/2023	Catalog #:	4400-10M91

Standard ID#:	M15400	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	05/04/2022	Lot #:	276712
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard Log #:	M15390	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	06/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15391	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	06/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15392	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	05/04/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15393	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/04/2022	Expiration Date:	06/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15394	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/04/2022	Expiration Date:	06/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15387	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15388	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15389	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15385	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/02/2022	Expiration Date:	05/02/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15386	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/02/2022	Expiration Date:	05/02/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15382	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/27/2022	Expiration Date:	05/27/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15383	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/27/2022	Expiration Date:	05/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

Standard Log #:	M15384	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	04/27/2022	Expiration Date:	09/27/2022
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC310 and brought up to volume.		

Standard Log #:	M15379	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	05/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15380	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	05/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15381	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	04/27/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15376	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15377	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15378	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/26/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15374	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/21/2022	Expiration Date:	05/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15375	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/21/2022	Expiration Date:	05/21/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15372	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/20/2022	Expiration Date:	05/20/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15373	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/20/2022	Expiration Date:	05/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15307 and brought up to volume.		

Standard Log #:	M15370	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/19/2022	Expiration Date:	05/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15371	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/19/2022	Expiration Date:	05/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15367	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/19/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15368	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/19/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15369	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/19/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15366	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/18/2022	Expiration Date:	04/18/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15365	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/15/2022	Expiration Date:	08/31/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M15174 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M15362	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15363	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15364	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15357	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	05/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15358	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	05/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15359	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	04/13/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15360	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/13/2022	Expiration Date:	05/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15361	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/13/2022	Expiration Date:	05/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15354	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/12/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15355	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/12/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15356	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/12/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15352	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	04/06/2022	Expiration Date:	04/06/2023
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.711 in a hood.		

Standard ID#:	M15353	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	04/06/2022	Lot #:	1-129AJ
Expiration Date (if any):	04/30/2022	Catalog #:	XCTWI-1-500

Standard Log #:	M15347	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	05/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15348	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	05/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15349	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	04/05/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15350	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/05/2022	Expiration Date:	05/05/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15351	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/05/2022	Expiration Date:	05/05/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15344	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15345	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15346	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/04/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M15342	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	03/29/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M152027 0.5 **mL** 10000 mg/L Cu M15021 5.0 **mL** 1000 mg/L Co M15019 5.0 **mL** 1000 mg/L Mo M15170 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15343	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	03/29/2022	Expiration Date:	07/2022
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M15095 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

Standard Log #:	M15338	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15339	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/29/2022	Expiration Date:	03/29/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

		Instrument:	ICP 6500
Standard Log #:	M15340	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/29/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M15023 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15341	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/29/2022	Expiration Date:	09/2022
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 1000 mg/L Be M15091 5.0 **mL** 1000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M15333	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	04/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15334	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	04/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15335	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	03/29/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15336	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15337	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15330	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15331	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15332	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/28/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP
Standard Log #:	M15329	Standard:	Pb ICV
Analyst:	NAH	Concentrations:	500 ug/L (Pb)
Prep Date:	03/21/2022	Expiration Date:	06/23
Prep:	Into a 1 L volumetric flask, pipetted **0.5 mL** Pb (1000 mg/L) M15289 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

		Instrument:	ICP 6500
Standard Log #:	M15326	Standard:	Pb ICAL
Analyst:	NAH	Concentrations:	10,100, 1000, and 10,000, 100,000 µg/L (Pb)
Prep Date:	03/21/2022	Expiration Date:	03/2023
Prep:	Into four, 1 L volumetric flasks, pipetted the following from Pb (10000 µg/mL) M15045 and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) *10 µg/L std.* - **0.001mL** *100 µg/L std.* - **0.01mL** 1000 µg/L std - **0.10 mL** *10,000 µg/L std.* - **1.0 mL** 100,000 µg/L std -**10.0 mL**		

		Instrument:	ICP 6500
Standard Log #:	M15327	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Pb
Prep Date:	03/21/2022	Expiration Date:	03/23
Prep:	Into a 1 L volumetric flask, pipetted 0.5 **mL** 10,000 mgL M15045 Pb and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15328	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Pb,
Prep Date:	03/21/2022	Expiration Date:	03/23
Prep:	Into a 1 L volumetric flask, pipetted .05 **mL** ml 10,000 mg/L M15045 Pb and brought up to volume with milli-Q H_2O.		

Standard Log #:	M15321	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	04/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15322	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	04/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15323	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	03/23/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15324	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/23/2022	Expiration Date:	04/23/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15325	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/23/2022	Expiration Date:	04/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15318	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/22/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15319	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/22/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15320	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/22/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15316	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	03/18/2022	Lot #:	T2-MEB716384
Expiration Date (if any):		Catalog #:	CTI-SPK-1

Standard ID#:	M15317	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/Spike
Date Received:	03/18/2022	Lot #:	T2-MEB716383
Expiration Date (if any):		Catalog #:	CTI-GFCAL-1

Standard Log #:	M15311	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	04/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15312	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	04/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15313	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	03/16/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15314	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2022	Expiration Date:	04/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15315	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/16/2022	Expiration Date:	04/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15308	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15309	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15310	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/15/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15305	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate 99%
Date Received:	03/10/2022	Lot #:	A0426185
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M15306	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/10/2022	Lot #:	M012-04
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15307	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/10/2022	Lot #:	M012-04
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M15300	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	04/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15301	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	04/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15302	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	03/09/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15303	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/09/2022	Expiration Date:	04/09/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15304	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/09/2022	Expiration Date:	04/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15297	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15298	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15299	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/08/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15296	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/07/2022	Expiration Date:	03/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M15292	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15293	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15294	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15295	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/07/2022	Expiration Date:	03/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15291	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	03/04/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M15222	1000	0.01
As	2	M15223	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M15220	1000	0.1
Se	2	M15217	1000	0.1
Tl	2	M15221	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15290	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	03/04/2022	Expiration Date:	01/2023

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M15223	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M15221	10,000
Se	1	1000	M15217	10,000
Sb	1	1000	M15220	10,000
Ag	0.1	1000	M15222	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard ID#:	M15286	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	03/02/2022	Lot #:	211029
Expiration Date (if any):	04/30/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15287	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 ug/mL
Date Received:	03/02/2022	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

Standard ID#:	M15288	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 ug/mL
Date Received:	03/02/2022	Lot #:	1137797-18
Expiration Date (if any):	06/2023	Catalog #:	4400-10M411

Standard ID#:	M15289	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 1000 ug/mL
Date Received:	03/02/2022	Lot #:	1046594-72
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000281

Standard Log #:	M15281	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2022	Expiration Date:	04/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15282	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2022	Expiration Date:	03/02/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15283	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15284	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15285	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15278	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15279	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15280	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15277	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/28/2022	Lot #:	58-137CR
Expiration Date (if any):	02/28/2023	Catalog #:	XSPIKE-1-250

Standard Log #:	M15275	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/23/2022	Expiration Date:	03/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15276	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/23/2022	Expiration Date:	03/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15270	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/21/2022	Expiration Date:	03/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15271	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/21/2022	Expiration Date:	02/22/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15272	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/22/2022	Expiration Date:	03/22/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15273	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/22/2022	Expiration Date:	03/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

Standard ID#:	M15274	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/23/2022	Lot #:	1-021JA
Expiration Date (if any):	02/28/2023	Catalog #:	XCTWI-5-500

		Instrument:	HydraII
Standard Log #:	M15267	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15268	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15269	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/21/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15263	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/15/2022	Expiration Date:	03/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15264 and brought up to volume.		

Standard Log #:	M15264	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/15/2022	Expiration Date:	03/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15265	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/16/2022	Expiration Date:	03/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15266	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/16/2022	Expiration Date:	03/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15260	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15261	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15262	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/15/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15259	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	100 mg/mL Custom Standard
Date Received:	02/11/2022	Lot #:	58-054CR
Expiration Date (if any):	02/28/2023	Catalog #:	XCTWI-4-500

Standard Log #:	M15254	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	03/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15255	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	03/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15256	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	02/10/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15257	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2022	Expiration Date:	03/10/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15258	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2022	Expiration Date:	03/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15251	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15252	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15253	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15250	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 10 ICVLL
Date Received:	02/08/2022	Lot #:	.01 mls m15222 into 1000 ml vol.
Expiration Date (if any):	06/2023	Catalog #:	

MRL BASE STD M15249 Analyst NAH

Prep Date 02/08/2022

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	07/2022
Al	400	M15112	10000	2	xx
Ba	10	M14772	1000	0.5	xx
Be	4	M15091	1000	0.2	xx
Cd	5	M15098	1000	0.25	xx
Co	10	M15019	1000	0.5	xx
Cr	10	M15027	10000	0.05	xx
Cu	10	M15021	10000	0.05	xx
Mg	500	M15174	10000	2.5	xx
Mn	10	M15023	10000	0.05	xx
Mo	10	M15170	1000	0.5	xx
Ni	10	M15095	1000	0.5	xx
Pb	10	M15045	10000	0.05	xx
Sb	20	M15229	1000	1	xx
V	10	M15020	1000	0.5	xx
Zn	10	M15114	10000	0.05	xx
K	1000	M15173	10000	5	xx
Na	1000	M15172	10000	5	xx
As	20	M15223	1000	1	xx
Ca	500	M15026	10000	2.5	xx
Fe	300	M15169	10000	1.5	xx
Se	20	M15217	1000	1	xx
Tl	20	M15221	1000	1	xx
Si	100	M15171	1000	5	xx
B	20	M14966	1000	1	xx
Li	20	M14681	1000	1	xx
W	50	Mxxxxxxx	1000	2.5	xx
Ti	10	M14674	1000	0.5	xx
Sr	10	M14775	1000	0.5	xx
Sn	50	M14774	1000	2.5	xx
S	300	M15025	10000	1.5	xx

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15248	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15068 and 15 **mL** 10000 mg/L Fe M15169 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15246	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	02/0/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M15167, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15068, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14775, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) Mxxxxxxx, **0.5 mL** Si (1000 mg/L) M15219,**0.5 mL** S (10000 mg/L) M14677, **0.5 mL** K (10000 mg/L) M15116, and **0.5 mL** K (10000 mg/L) Na M15097		

		Instrument:	ICP 6500
Standard Log #:	M15247	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	02/08/2022	Expiration Date:	11/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15068, **15 mL** Fe (10,000 mg/L) M15169, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15134, **2.5 mLs Na 10,000 ug/mL** M15172, **2.5 mLs k 10,000 ug/mL** M15173 **2.5 mLs S 10,000 ug/mL** M15025, **0.5 mls Si 1000 ug/mL** M15088 and brought up to volume with milli-Q .		

		Instrument:	ICP 6500
Standard Log #:	M15244	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **100,000 ug/L** K, Na, S. **500 µg/L** Ag, Be, Cd
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn Si) M15134,M15 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) 0.5 ml M150 10 mls of 10,000 mgL M15173 K, M15172 Na, M15025 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15245	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15134 and 0.5 **mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) .05 ml M152 and .5 ml M15171 Si and 1 ml 10,000 mg/L M15173 K, M15172 Na, M15025 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15243	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	02/08/2022	Expiration Date:	11/2022

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15134, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) 1ml M15098,M and **1 mL** of Si (1000 mg/L) M15171 and 1 mL M14682 Ce and 1 ml M15108 Hg and 0.1 ml of 10,000 mg/L M15173 K and M15172 Na and M15025 S and M15166 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M15114.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15174, **10 mL** of Fe (10,000 mg/L) M15169, **10 mL** of Ca (10,000 mg/L) M15026 and **10 mL** Al (10,000 mg/L) M15112,10 mL of Na (10000) M15172, 10 mL K (10,000) M15173, 10 mL S (10,000) M15025,10 mL P (10,1000), M15166 10 mL Si (1000) M15171.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

Standard Log #:	M15242	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL Spike Soln
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15112	**10000**	4
As	40	M15223	1000	2
Ba	20	M14772	1000	1
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15172	**10000**	50
K	10000	M15173	**10000**	50
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15241	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ solid QSM
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15112	**10000**	4
As	40	M15223	1000	2
Ba	40	M14772	1000	2
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15172	**10000**	50
K	10000	M15173	**10000**	50
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15240	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15112	**10000**	0.6
As	40	M15223	1000	2
Ba	4	M14772	1000	0.2
Be	8	M15091	1000	0.4
Ca	100	M15026	**10000**	0.5
Cd	2	M15098	1000	0.1
Co	5	M15019	1000	0.25
Cr	5	M15027	**10000**	0.025
Cu	40	M15021	**10000**	0.2
Fe	80	M15169	**10000**	0.4
Mg	40	M15174	**10000**	0.2
Mn	5	M15023	**10000**	0.025
Mo	5	M15170	1000	0.25
Ni	5	M15095	1000	0.25
Pb	20	M15045	**10000**	0.1
Sb	20	M15220	1000	1.0
Se	20	M15217	1000	2
Tl	40	M15221	1000	2
V	5	M15020	1000	0.25
Zn	20	M15114	**10000**	0.1
Na	700	M15172	**10000**	3.5
K	500	M15173	**10000**	2.5
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15236	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/25/2022	Expiration Date:	02/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15237	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/25/2022	Expiration Date:	02/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15238	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/26/2022	Expiration Date:	02/26/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15239	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/26/2022	Expiration Date:	02/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15233	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/25/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15234	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/25/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15235	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/25/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15232	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod
Date Received:	01/18/2022	Lot #:	276713
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard Log #:	M15227	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	02/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15228	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	02/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15229	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	01/19/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15230	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/19/2022	Expiration Date:	02/19/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15231	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/19/2022	Expiration Date:	02/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15224	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/18/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15225	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/18/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15226	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/18/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15217	Vendor:	CPI
Analyst:	NAH	Chemical:	Se 1000 mg/L
Date Received:	01/13/2022	Lot #:	1135995-21
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000491

Standard ID#:	M15218	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	01/13/2022	Lot #:	1157358-14
Expiration Date (if any):	06/2023	Catalog #:	4400-10M671

Standard ID#:	M15219	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/13/2022	Lot #:	211029
Expiration Date (if any):	04/30/2022	Catalog #:	S4400-1000504F

Standard ID#:	M15220	Vendor:	CPI
Analyst:	NAH	Chemical:	Sb 1000 mg/L
Date Received:	1/13/2022	Lot #:	1129139-6
Expiration Date (if any):	06/2023	Catalog #:	S4400-100023

Standard ID#:	M15221	Vendor:	CPI
Analyst:	NAH	Chemical:	Tl 1000 mg/L
Date Received:	01/13/2022	Lot #:	1025512-61
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000581

Standard ID#:	M15222	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 1000 mg/L
Date Received:	01/13/2022	Lot #:	1106123-69
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000511

Standard ID#:	M15223	Vendor:	CPI
Analyst:	NAH	Chemical:	As 1000 mg/L
Date Received:	01/13/2022	Lot #:	1103713-64
Expiration Date (if any):	06/2023	Catalog #:	S4400-100031

Standard Log #:	M15213	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2022	Expiration Date:	02/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15214	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2022	Expiration Date:	02/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15215	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2022	Expiration Date:	02/12/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15216	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2022	Expiration Date:	02/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15210	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15211	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15212	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15205	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	02/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15206	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	02/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15207	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	01/05/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15208	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/05/2022	Expiration Date:	02/05/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15209	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/05/2022	Expiration Date:	02/05/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15202	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15203	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15204	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/04/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15199	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15200	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15201	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15194	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	01/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15195	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	01/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15196	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	12/29/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15197	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/29/2021	Expiration Date:	01/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15198	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/29/2021	Expiration Date:	01/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15191	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/28/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15192	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/28/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15193	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/28/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15186	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	01/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15187	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	01/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15188	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	12/21/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15189	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/21/2021	Expiration Date:	01/21/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15190	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/21/2021	Expiration Date:	01/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15183	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/20/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15184	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/20/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15185	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/20/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15180	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/15/2021	Expiration Date:	01/15/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15181	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/15/2021	Expiration Date:	01/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15182	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	12/20/2021	Expiration Date:	12/20/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15178	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/14/2021	Expiration Date:	01/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15179	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/14/2021	Expiration Date:	01/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15175	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/14/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15176	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/14/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15177	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/14/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15169	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Iron
Date Received:	12/13/2021	Lot #:	1034257-77
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M261

Standard ID#:	M15170	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Molybdenum
Date Received:	12/13/2021	Lot #:	1138256-5
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000343

Standard ID#:	M15171	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Silicon
Date Received:	12/13/2021	Lot #:	1198119-3
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15172	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Sodium
Date Received:	12/13/2021	Lot #:	1122472-6
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M521

Standard ID#:	M15173	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Potassium
Date Received:	12/13/2021	Lot #:	1137797-18
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M411

Standard ID#:	M15174	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Magnesium
Date Received:	12/13/2021	Lot #:	1075232-54
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M311

Standard ID#:	M15164	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/10/2021	Lot #:	L259-10
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15165	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/10/2021	Lot #:	L259-10
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15166	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	10,000 ug/mL Phosphorus
Date Received:	12/13/2021	Lot #:	AR18-111PY
Expiration Date (if any):	12/30/2022	Catalog #:	PLP9-3Y

Standard ID#:	M15167	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	12/13/2021	Lot #:	57-204CR
Expiration Date (if any):	12/30/2022	Catalog #:	XSPIKE-1-250

Standard ID#:	M15168	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Silicon
Date Received:	12/13/2021	Lot #:	1198119-3
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15163	Vendor:	Decon Labs
Analyst:	NAH	Chemical:	Dri-Clean lab detergent
Date Received:	12/08/2021	Lot #:	1J519
Expiration Date (if any):	----------	Catalog #:	2502

Standard Log #:	M15158	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	01/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15159	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	01/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15160	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	12/08/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15161	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/08/2021	Expiration Date:	01/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15162	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/08/2021	Expiration Date:	01/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15155	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/07/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15156	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/07/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15157	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/07/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15153	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	12/01/2021	Expiration Date:	05/01/2022
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC310 and brought up to volume.		

Standard Log #:	M15154	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	12/01/2021	Expiration Date:	12/01/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard Log #:	M15148	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15149	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15150	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/01/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15151	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/01/2021	Expiration Date:	01/01/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15152	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/01/2021	Expiration Date:	01/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15145	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/30/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15146	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/30/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15147	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/30/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15144	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	11/29/2021	Lot #:	A0431536
Expiration Date (if any):		Catalog #:	198530010

Standard ID#:	M15143	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	11/22/2021	Lot #:	2123812-500
Expiration Date (if any):	05/31/2023	Catalog #:	HP10M67-1-500

Standard Log #:	M15138	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15139	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15140	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	11/17/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15141	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15142	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15135	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15136	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15137	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/16/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15134	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/11/2021	Lot #:	1-040EL
Expiration Date (if any):	11/20/2022	Catalog #:	XCTWI-5-500

Standard Log #:	M15129	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15130	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15131	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	11/11/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15132	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15133	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15126	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15127	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15128	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/10/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15124	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/04/2021	Expiration Date:	12/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15125	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/05/2021	Expiration Date:	12/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15121	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15122	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15123	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	11/04/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard ID#:	M15117	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	11/03/2021	Lot #:	CL12-145HGY
Expiration Date (if any):	10/30/2022	Catalog #:	CLHG4-2Y

		Instrument:	HydraII
Standard Log #:	M15118	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15119	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15120	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/03/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15112	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1144484-5
Expiration Date (if any):	04/2023	Catalog #:	4400-10M11

Standard ID#:	M15113	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	KD37797-20
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411-500

Standard ID#:	M15114	Vendor:	CPI
Analyst:	NAH	Chemical:	ZN 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1149838-4
Expiration Date (if any):	04/2023	Catalog #:	S4400-10M681

Standard ID#:	M15115	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1157358-4
Expiration Date (if any):	04/2023	Catalog #:	4400-10M671

Standard ID#:	M15116	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1137797-18
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411

		Instrument:	GFAA
Standard Log #:	M15109	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15110	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15111	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15108	Vendor:	CPI International
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	10/21/2021	Lot #:	1084154-49
Expiration Date (if any):	01/22/2023	Catalog #:	S4400-1000331

Standard Log #:	M15103	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15104	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15105	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	10/20/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15106	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15107	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15100	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15101	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15102	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15099	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	10/15/2021	Expiration Date:	02/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M15094	Vendor:	CPI
Analyst:	NAH	Chemical:	MG 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1075232-5
Expiration Date (if any):	09/2022	Catalog #:	4400-10M311

Standard ID#:	M15095	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	10/14/2021	Lot #:	1049780-73
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000361

Standard ID#:	M15096	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	10/14/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15097	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1055526-35
Expiration Date (if any):	11/2022	Catalog #:	4400-10M521

Standard ID#:	M15098	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	10/14/2021	Lot #:	1080470-23
Expiration Date (if any):	01/2023	Catalog #:	S4400-100081

Standard ID#:	M15090	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1079898-11
Expiration Date (if any):	01/2023	Catalog #:	S4400-10M391

Standard ID#:	M15091	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	10/14/2021	Lot #:	1072683-57
Expiration Date (if any):	01/2023	Catalog #:	S4400-100051

Standard ID#:	M15092	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1072921-23
Expiration Date (if any):	01/2023	Catalog #:	4400-10M91

Standard ID#:	M15093	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1034257-71
Expiration Date (if any):	03/2023	Catalog #:	4400-10M261

Standard Log #:	M15086	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15087	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14949 and brought up to volume.		

Standard ID#:	M15088	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/L
Date Received:	10/13/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15089	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/13/2021	Lot #:	57-130CR
Expiration Date (if any):	10/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M15083	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15084	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15085	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	10/13/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15080	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15081	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15082	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/12/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15079	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	10/11/2021	Expiration Date:	02/2022

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

Standard Log #:	M15074	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15075	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15076	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	10/06/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15077	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15078	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15071	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15072	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15073	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/05/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15067	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/04/2021	Expiration Date:	08/20/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M14739 and brought up to volume.		

Standard ID#:	M15068	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Interference A
Date Received:	10/4/2021	Lot #:	18-102WLX
Expiration Date (if any):	09/22	Catalog #:	INT-A1

Standard ID#:	M15069	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/04/2021	Lot #:	1-181-PC
Expiration Date (if any):	09/30/2022	Catalog #:	XCTWI-1-500

MRL BASE STD M15066 Analyst NAH

Prep Date 10/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M15098	10000	2	02/23
Ba	10	M14772	1000	0.5	09/22
Be	4	M15203	1000	0.2	09/22
Cd	5	M14201	1000	0.25	09/22
Co	10	M15019	1000	0.5	02/23
Cr	10	M15027	10000	0.05	02/23
Cu	10	M15021	10000	0.05	02/23
Mg	500	M14739	10000	2.5	08/22
Mn	10	M15023	10000	0.05	02/23
Mo	10	M15022	1000	0.5	02/23
Ni	10	M14196	1000	0.5	xx
Pb	10	M15045	10000	0.05	03/23
Sb	20	M14622	1000	1	02/22
V	10	M15020	1000	0.5	02/23
Zn	10	M14197	10000	0.05	xx
K	1000	M14887	10000	5	11/22
Na	1000	M14969	10000	5	01/23
As	20	M14621	1000	1	02/22
Ca	500	M15026	10000	2.5	02/23
Fe	300	M15024	10000	1.5	02/23
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14968	1000	5	01/23
B	20	M14966	1000	1	01/23
Li	20	M14681	1000	1	07/22
W	50	xxxxx	1000	2.5	xxxxx
Ti	10	M14674	1000	0.5	07/22
Sr	10	M14683	1000	0.5	07/22
Sn	50	M14774	1000	2.5	09/22
S	300	M14773	10000	1.5	09/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15064	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M15204, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15065	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833 and **15 mL** Fe (10000 mg/L) M15024 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15061	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15062	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15063	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14988, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774 and **0.5 mL** Ti (1000 mg/L) M14674.		

		Instrument:	ICP 6500
Standard Log #:	M15060	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	10/14/2021	Expiration Date:	01/30/2022
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15828, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14968 and 1 mL M14682 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M15046. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14969. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14739, **10 mL** of Fe (10,000 mg/L) M15024, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14737. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

Standard Log #:	M15059	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/29/2021	Expiration Date:	10/29/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard ID#:	M15057	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15058	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15056	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	09/22/2021	Lot #:	A0428169
Expiration Date (if any):		Catalog #:	198531000

Standard Log #:	M15051	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15052	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15053	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	09/21/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15054	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15055	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15048	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15049	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15050	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15047	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/09/2021	Expiration Date:	09/09/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard ID#:	M15045	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10,000 mg/L
Date Received:	09/15/2021	Lot #:	1035677-18
Expiration Date (if any):	03/2023	Catalog #:	4400-10M281

Standard ID#:	M15046	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,1000 mg/L
Date Received:	09/15/2021	Lot #:	1137797-13
Expiration Date (if any):	03/2023	Catalog #:	4400-10M411-500

Standard Log #:	M15040	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15041	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15042	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	09/15/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15043	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15044	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15037	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15038	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15039	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15032	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15033	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15034	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	09/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15035	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15036	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14940 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15029	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15030	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15031	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/01/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15023	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10,000 mg/L
Date Received:	08/30/2021	Lot #:	985851-80
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M321

Standard ID#:	M15024	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1034257-71
Expiration Date (if any):	02/2023	Catalog #:	4400-10M261

Standard ID#:	M15025	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1050965-59
Expiration Date (if any):	02/2023	Catalog #:	4400-10M544

Standard ID#:	M15026	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1072921-23
Expiration Date (if any):	02/2023	Catalog #:	4400-10M91

Standard ID#:	M15027	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1076194-26
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M121

Standard ID#:	M15028	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	NAH	Lot #:	17-023AB
Expiration Date (if any):	AUG 30,2022	Catalog #:	XCTWI-5-500

Standard ID#:	M15018	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1077245-48
Expiration Date (if any):	02/2023	Catalog #:	4400-10M11

Standard ID#:	M15019	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	08/30/2021	Lot #:	1107088-1
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000131

Standard ID#:	M15020	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	08/30/2021	Lot #:	1055682-88
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000651

Standard ID#:	M15021	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1063159-57
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M141

Standard ID#:	M15022	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	08/30/2021	Lot #:	1075718-15
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000343

Standard Log #:	M15013	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15014	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15015	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	08/25/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15016	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15017	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15010	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15011	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15012	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/24/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15009	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	08/23/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

Standard ID#:	M15008	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Palladium Matrix Modifier
Date Received:	08/19/2021	Lot #:	2113302-100
Expiration Date (if any):	08/31/2022	Catalog #:	HP1900-100

Standard Log #:	M15003	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15004	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15005	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	08/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15006	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15007	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15000	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15001	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15002	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/18/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14997	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14998	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14999	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14992	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14993	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14994	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	08/11/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14995	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14996	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14989	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14990	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14991	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/10/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14987	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-190MF
Expiration Date (if any):	08/30/2022	Catalog #:	XCTWI-1-500

Standard ID#:	M14988	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-189MF
Expiration Date (if any):	08/30/2021	Catalog #:	XSPIKE-1-250

Standard Log #:	M14982	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14983	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14984	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	08/04/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14985	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14986	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14979	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14980	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14981	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/03/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14978	Vendor:	Enviromental Express
Analyst:	BMM	Chemical:	Acid Washed TCLP Filters
Date Received:	05/20/2021	Lot #:	400175-1116-T
Expiration Date (if any):		Catalog #:	FG77150MM

Standard Log #:	M14973	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14974	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14975	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	07/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14976	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14977	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14970	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14971	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14972	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/27/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14966	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 10,000 mg/L
Date Received:	07/27/2021	Lot #:	1101946-16
Expiration Date (if any):	01/2023	Catalog #:	S4400-100074

Standard ID#:	M14967	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 mk/L
Date Received:	07/27/2021	Lot #:	1109477-26
Expiration Date (if any):	01/2023	Catalog #:	4400-10M671

Standard ID#:	M14968	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	07/27/2021	Lot #:	1047570-64
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000504F

Standard ID#:	M14969	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000
Date Received:	07/27/2021	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

		Instrument:	CETAC
Standard Log #:	M14963	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

Standard Log #:	M14964	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/22/2021	Expiration Date:	07/22/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard Log #:	M14965	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	07/23/2021	Expiration Date:	07/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.704 and brought up to volume.		

Standard Log #:	M14959	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14960	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14961	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	07/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14962	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14956	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14957	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14958	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14955	Vendor:	GFS Chemicals
Analyst:	NAH	Chemical:	AMCO Clear 2.0 NTU
Date Received:	07/16/2021	Lot #:	21150075
Expiration Date (if any):	07/22/2022	Catalog #:	8008

Standard Log #:	M14950	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14951	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14952	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	07/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14953	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14954	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14947	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14948	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14949	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14944	Standard:	ICV Std.
Analyst:	nah	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	07/09/2021	Expiration Date:	08/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14874, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M14888, **0.5 mL** B (1000 mg/L) M14675, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) XXXXXXX, **0.5 mL** Si (1000 mg/L) M14680, **0.5 mL** S (10000 mg/L) M14570, **0.5 mL** K (10000 mg/L) M14887, and **0.5 mL** Na (10000 mg/L) M14736		

Standard Log #:	M14945	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/12/2021	Expiration Date:	07/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14946	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	07/14/2021	Expiration Date:	12/14/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC272 and brought up to volume.		

Standard ID#:	M14939	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14940	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14941	Vendor:	GFS
Analyst:	NAH	Chemical:	AMCO Clear 0.1 ntu
Date Received:	07/12/2021	Lot #:	Returned to manufacturer
Expiration Date (if any):	not used	Catalog #:	not used

		Instrument:	ICP 6500
Standard Log #:	M14942	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	07/09/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14833 and 15 **mL** 10000 mg/L Fe M14676 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14943	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	07/09/2021	Expiration Date:	12/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M14676, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788, **2.5 mLs Na 10,000 ug/mL** M14736 **,2.5 mLs k 10,000 ug/mL** M14370 **2.5 mLs S 10,000 ug/mL** M14677 **, 0.5 mls Si 1000 ug/mL** M14735 and brought up to volume with milli-Q .		

Standard Log #:	M14938	Reagent:	TCLP EXTRACTION FLUID #2
Analyst:	BMM	pH:	2.88 ± 0.05
Prep Date:	07/08/2021	Expiration Date:	07/08/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703. Dilute to 20 L and mix.		

Standard Log #:	M14933	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14934	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14935	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	07/08/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14936	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14937	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14930	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14931	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14932	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/07/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14925	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14926	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14927	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	07/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14928	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14929	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14922	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14923	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14924	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/30/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14921	Vendor:	LabChem
Analyst:	NAH	Chemical:	Turbidity Standard(Formazin) 4000NT
Date Received:	06/25/2021	Lot #:	L147-07
Expiration Date (if any):	06/08/2022	Catalog #:	LC26290

		Instrument:	ICP 6500
Standard Log #:	M14919	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M14205 0.5 **mL** 10000 mg/L Cu M14199 5.0 **mL** 1000 mg/L Co M14204 5.0 **mL** 1000 mg/L Mo M14888 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14920	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M14196 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M14916	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M14917	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M14200 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14918	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 10000 mg/L Be M14203 5.0 **mL** 10000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M14912	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14913	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14914	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	06/23/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14915	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14909	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14910	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14911	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/22/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14904	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14905	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14906	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	06/17/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14907	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14908	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

Standard Log #:	M14903	Instrument:	ICP 6500
Analyst:	NAH	Standard:	Dissolved MDL Verificaion
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	2.7	M14623	1000	0.135
Al	10	M14736	**10000**	.05
As	20	M14621	1000	1
Ba	2	M14772	1000	0.1
Be	1	M14203	1000	0.05
Ca	50	M14740	**10000**	0.25
Cd	0.5	M14201	1000	.025
Co	2.5	M14204	1000	0.125
Cr	5	M14205	**10000**	.025
Cu	10	M14199	**10000**	.05
Fe	40	M14738	**10000**	0.2
Mg	25	M14676	**10000**	0.125
Mn	3	M14200	**10000**	.015
Mo	2.5	M14888	1000	0.125
Ni	3	M14196	1000	0.15
Pb	20	M14202	**10000**	0.1
Sb	10	M14622	1000	0.5
Se	20	M14624	1000	1
Tl	20	M14626	1000	1
V	3	M14198	1000	0.15
Zn	5	M14197	**10000**	0.025
Na	150	M14736	**10000**	0.75
K	150	M14741	**10000**	0.75
B	20	M14675	1000	1
Si	200	M14735	1000	10
Li	10	M14681	1000	0.5
Sr	20	M14775	1000	1
Sn	20	M14774	1000	1
Ti	5	M14674	1000	0.25
S	200	M14773	**10000**	10

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14902	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL spike Soln.
Prep Date:	06/16/2021	Expiration Date:	09//2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	20	M14772	1000	1
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14901	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ Solid QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	40	M14772	1000	2
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14900	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M14623	1000	0.25
Al	120	M14737	**10000**	0.6
As	40	M14621	1000	2
Ba	4	M14772	1000	0.2
Be	8	M14203	1000	0.4
Ca	100	M14740	**10000**	0.5
Cd	2	M14201	1000	0.1
Co	5	M14204	1000	0.25
Cr	5	M14205	**10000**	0.025
Cu	40	M14199	**10000**	0.2
Fe	80	M14738	**10000**	0.4
Mg	40	M14676	**10000**	0.2
Mn	5	M14200	**10000**	0.025
Mo	5	M14888	1000	0.25
Ni	5	M14196	1000	0.25
Pb	20	M14202	**10000**	0.1
Sb	20	M14622	1000	1.0
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	5	M14198	1000	0.25
Zn	20	M14197	**10000**	0.1
Na	700	M14736	**10000**	3.5
K	500	M14741	**10000**	2.5
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M14897	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14898	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14899	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14892	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14893	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14894	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	06/09/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14895	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14896	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14889	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14890	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14891	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/08/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14886	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	06/04/2021	Lot #:	Y20F051
Expiration Date (if any):		Catalog #:	88944

Standard ID#:	M14887	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	06/04/2021	Lot #:	1053109-69
Expiration Date (if any):	11/2022	Catalog #:	4400-10M411500

Standard ID#:	M14888	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06/04/2021	Lot #:	1075718-15
Expiration Date (if any):	11/2022	Catalog #:	S4400-1000343

Standard Log #:	M14885	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14883	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14884	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14878	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14879	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14880	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	06/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14881	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14882	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14875	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14876	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14877	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14874	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/24/2021	Lot #:	16-115AB
Expiration Date (if any):	05/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14869	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14870	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14871	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	05/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14872	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14873	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14866	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14867	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14868	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/18/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14865	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	05/12/2021	Expiration Date:	09/30/2021
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M14508 and **10 mL** Mg (10,000 mg/L) M14676 and brought up to volume.		

Standard Log #:	M14860	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14861	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14862	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	05/12/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14863	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14864	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14857	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14858	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14859	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14854	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14855	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14856	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14850	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14851	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14852	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	05/05/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14853	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14847	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/04/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14848	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/04/2021	Expiration Date:	05/02/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14849	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/04/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14846	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	ACID WASHED TCLP FILTERS
Date Received:	04/29/2021	Lot #:	400175-1081-AG
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

		Instrument:	CETAC
Standard Log #:	M14842	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14843	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/19/2021	Expiration Date:	04/19/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard ID#:	M14844	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14845	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M14838	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14839	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14840	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	04/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14841	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14835	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14836	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14837	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14832	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard ID#:	M14833	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	04/21/2021	Lot #:	18-102WLX
Expiration Date (if any):	04/30/2022	Catalog #:	INT-A1

Standard ID#:	M14834	Vendor:	Custom Assurance Std
Analyst:	NAH	Chemical:	Ca 20000 Mg,Na 10000: THardness
Date Received:	04/21/2021	Lot #:	16-022AB
Expiration Date (if any):	04/30/2022	Catalog #:	XCTIWI-1-500

Standard Log #:	M14828	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14829	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14830	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	04/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14831	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14825	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14826	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14827	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/20/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14824	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14821	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14395 , **15 mL** Fe (10,000 mg/L) M14738 , **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 , **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788 , **2.5 mLs Na 10,000 ug/mL** M14736 ,**2.5 mLs k 10,000 ug/mL** 14625 **2.5 mLs S 10,000 ug/mL** M14570 , **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14822	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14395 and 15 **mL** 10000 mg/L Fe M14738 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14823	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

MRL BASE STD M14820 Analyst NAH

Prep Date 04/15/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	XX
Al	400	M14737	10000	2	XX
Ba	10	M14772	1000	0.5	XX
Be	4	M14203	1000	0.2	09/21
Cd	5	M14740	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14676	10000	2.5	XX
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14684	1000	0.5	XX
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	XX
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14741	10000	5	XX
Na	1000	M14736	10000	5	XX
As	20	M14621	1000	1	XX
Ca	500	M14740	10000	2.5	XX
Fe	300	M14738	10000	1.5	XX
Se	20	M14624	1000	1	XX
Tl	20	M14674	1000	1	XX
Si	100	M14735	1000	5	XX
B	20	M14675	1000	1	09/21
Li	20	M14681	1000	1	XX
W	50	MXXX	1000	2.5	XXXXX
Ti	10	M14674	1000	0.5	XX
Sr	10	M14775	1000	0.5	XX
Sn	50	M14774	1000	2.5	XX
S	300	M14773	10000	1.5	XX

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M14815	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14816	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14817	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	04/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14818	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14819	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14812	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14813	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14814	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/14/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14811	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	04/13/2021	Expiration Date:	09/2021
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14477. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14736. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14676, **10 mL** of Fe (10,000 mg/L) M14676, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14478. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	GFAA
Standard Log #:	M14808	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14809	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14810	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14803	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14804	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14805	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	04/07/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14806	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14807	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14800	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14801	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14802	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/06/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14799	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	04/06/2021	Lot #:	A0417285
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M14797	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	04/05/2021	Lot #:	S2-MEB703691
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-SPK-1

Standard ID#:	M14798	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	04/05/2021	Lot #:	S2-MEB703690
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-GFCAL-1

Standard Log #:	M14792	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	04/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14793	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	03/31/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14794	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

Standard Log #:	M14795	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14796	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14789	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14790	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14791	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/30/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14787	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Phosphorus 10,000 mg/L
Date Received:	03/29/2021	Lot #:	AR18-111PY
Expiration Date (if any):	3/29/2022	Catalog #:	PLP9-3Y

Standard ID#:	M14788	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/29/2021	Lot #:	4-070MF
Expiration Date (if any):	03/29/2021	Catalog #:	XCTWI-5-500

Standard Log #:	M14786	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/25/2021	Expiration Date:	03/25/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14785	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	03/24/2021	Expiration Date:	08/24/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC208 and brought up to volume.		

Standard Log #:	M14780	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14781	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14782	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	03/24/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14783	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14784	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14777	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14778	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14779	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/23/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14772	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/mL
Date Received:	03/22/2021	Lot #:	994634-134
Expiration Date (if any):	09/2022	Catalog #:	S4400-100041

Standard ID#:	M14773	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/mL
Date Received:	03/22/2021	Lot #:	1050965-34
Expiration Date (if any):	09/2022	Catalog #:	4400-10M544

Standard ID#:	M14774	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1066479-21
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000613

Standard ID#:	M14775	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1096004-1
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000531

Standard ID#:	M14776	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/23/2021	Lot #:	56-049CR
Expiration Date (if any):	03/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14767	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14768	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	03/17/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14769	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14770	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14771	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14764	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14765	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14766	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14763	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	TCLP Acid Washed Filters
Date Received:	01/05/21	Lot #:	400182-0364-T
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

Standard Log #:	M14758	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	04/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14759	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	03/10/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14760	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14761	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14762	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14755	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14756	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14757	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14754	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	03/04/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

		Instrument:	GFAA
Standard Log #:	M14751	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14752	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14753	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14748	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14749	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14750	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/02/2021	Expiration Date:	03/02/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14745	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14746	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14747	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	03/02/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14742	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14743	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14744	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14740	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Calcium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1072921-23
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M91

Standard ID#:	M14741	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Potassium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1053109-37
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M411

Standard ID#:	M14735	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Silicon 1000 µg/mL
Date Received:	02/25/2021	Lot #:	1047570-64
Expiration Date (if any):	08/20/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14736	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Sodium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1055526-35
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M521

Standard ID#:	M14737	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Aluminum 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1077245-17
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M11

Standard ID#:	M14738	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Iron 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1034257-40
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M261

Standard ID#:	M14739	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Magnesium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1075232-5
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M311

Standard Log #:	M14731	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14732	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14733	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14734	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14728	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14729	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14730	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14725	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14726	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14727	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14720	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14721	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14722	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14723	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard ID#:	M14724	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Potassium Permanganate
Date Received:	02/08/2021	Lot #:	201466
Expiration Date (if any):	Suggested Retest 04/202	Catalog #:	P279

		Instrument:	HydraII
Standard Log #:	M14717	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14718	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14719	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14713	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14714	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14715 (1) & (2)	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	02/3/2021	Lot #:	2023715-500
Expiration Date (if any):	08/31/2022	Catalog #:	10M67-1-500

Standard ID#:	M14716	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Phosphorus 10000 mg/L
Date Received:	02/08/2021	Lot #:	AR18-111PY
Expiration Date (if any):	02/28/2022	Catalog #:	PLP9--3Y

Standard Log #:	M14708	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14709	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14710	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	02/03/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14711	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14712	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14705	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14706	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14707	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/02/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14702	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/27/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14703	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14704	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14699	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14700	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14701	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/28/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14696	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14697	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14698	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14694	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) N/A **3.2 mL** of As (1000 mg/L) M14621 **3.2 mL** of Se (1000 mg/L) M14624 **0.08 mL** of Pb (10,000 mg/L) M14202 **1.0 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M14695	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M14622 **1.0 mL** of As (1000 mg/L) M14621 **2.0 mL** of Se (1000 mg/L) M14624 **0.045 mL** of Pb (10,000 mg/L) M14202 **0.4 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M14689	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14690	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14691	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	01/20/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14692	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14693	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14686	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14687	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14688	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14680	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/15/2021	Lot #:	1047870-29
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000504F

Standard ID#:	M14681	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	01/15/2021	Lot #:	104768-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000291

Standard ID#:	M14682	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	01/15/2021	Lot #:	S4400-1000101
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000101

Standard ID#:	M14683	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	01/15/2021	Lot #:	1096004-1
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000531

Standard ID#:	M14684	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	01/15/2021	Lot #:	1075718-2
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000343

Standard ID#:	M14685	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance standard
Date Received:	01/18/2021	Lot #:	XCTWI-4-500
Expiration Date (if any):	01/30/2022	Catalog #:	14-242AB

Standard ID#:	M14674	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	01/15/2021	Lot #:	1038255-27
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000623

Standard ID#:	M14675	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	01/15/2021	Lot #:	1024903-65
Expiration Date (if any):	07/2022	Catalog #:	S4400-100074

Standard ID#:	M14676	Vendor:	CPI
Analyst:	NAH	Chemical:	M 10000 mg/L
Date Received:	01/15/2021	Lot #:	1013353
Expiration Date (if any):	07/2022	Catalog #:	4400-10M311

Standard ID#:	M14677	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	01/15/2021	Lot #:	1050965-25
Expiration Date (if any):	07/2022	Catalog #:	4400-10M544

Standard ID#:	M14678	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 mg/L
Date Received:	01/15/2021	Lot #:	1079898-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-10M391

Standard ID#:	M14679	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	01/15/2021	Lot #:	1034527-40
Expiration Date (if any):	07/2022	Catalog #:	4400-10M261

Standard Log #:	M14673	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	01/13/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M14202	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14670	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14671	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14597 and brought up to volume.		

Standard Log #:	M14672	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/12/2021	Expiration Date:	01/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14667	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14668	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14669	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	01/12/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14664	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14665	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14666	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14663	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	01/06/2021	Expiration Date:	09/2021

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M14202	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

		Instrument:	GFAA
Standard Log #:	M14660	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14661	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14662	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

MRL BASE STD M14659 Analyst NAH

Prep Date 01/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M14478	10000	2	02/22
Ba	10	M14568	1000	0.5	05/22
Be	4	M14203	1000	0.2	09/21
Cd	5	M14201	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14472	10000	2.5	02/22
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14569	1000	0.5	05/22
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	02/22
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14436	10000	5	02/22
Na	1000	M14559	10000	5	02/22
As	20	M14621	1000	1	02/22
Ca	500	M14476	10000	2.5	02/22
Fe	300	M14470	10000	1.5	02/22
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14435	1000	5	02/22
B	20	M14131	1000	1	07/21
Li	20	M14127	1000	1	07/21
W	50	xxxxxxxx	1000	2.5	xxxxxx
Ti	10	M14009	1000	0.5	04/21
Sr	10	M14007	1000	0.5	04/21
Sn	50	M14008	1000	2.5	04/21
S	300	M14570	10000	1.5	05/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M14658	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	1/04/2021	Expiration Date:	03/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **15 mL** Fe (10,000 mg/L) M14470, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14628, **2.5 mLs Na 10,000 ug/mL** M14473 ,**2.5 mLs k 10,000 ug/mL** M14436 **2.5 mLs S 10,000 ug/mL** M14570, **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14656	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14639, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **0.5 mL** Mo (1000 mg/L) M14569, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M14008, **0.5 mL** Ti (1000 mg/L) M14009, **0.5 mL** W (1000 mg/L) xxxxxxx, **0.5 mL** Si (1000 mg/L) M14567, **0.5 mL** S (10000 mg/L) M14372, **0.5 mL** K (10000 mg/L) M14436, and **0.5 mL** Na (10000 mg/L) M14559		

		Instrument:	ICP 6500
Standard Log #:	M14657	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14359 and 15 **mL** 10000 mg/L Fe M14470 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M1359 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14655	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	01/04/2021	Expiration Date:	03/30/2021

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14628, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195 and **1 mL** of Si (1000 mg/L) M14435 and 1 mL M13859 Ce
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14559.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M14472, **10 mL** of Fe (10,000 mg/L) M14470, **10 mL** of Ca (10,000 mg/L) M14476 and **10 mL** Al (10,000 mg/L) M14478.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

INORGANIC
CLP FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283675
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 14:01
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.31	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	43		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283675
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283672
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 15:22
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.1	H	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283672
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 16:35
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283672
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 19:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	110		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283671
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/27/2023 09:33
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	69		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283671
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 15:01
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
16887-00-6	Chloride	3.5			1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.19	J	H	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283671
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 16:17
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283670
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 14:41
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.79	H	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283670
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 14:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283670
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 17:43
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	150		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284317
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 14:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.0		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.7		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	53		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284317
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 20:30
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284318
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 15:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	U	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	1.5	U	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284318
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 20:50
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284320
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 15:45
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.6	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.74		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	5.6		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284320
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 21:25
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284321
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 16:05
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.6	J	1.0	1.5	3.0	3.2
14808-79-8	Sulfate	35		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284321
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 19:27
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14797-55-8	Nitrate Nitrogen	6.3		0.60	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284321
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 21:36
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283980
Analytical Method:	EPA 9056A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268868	Analysis Date/Time:	01/27/2023 13:26
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	11		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.0		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283980
Analytical Method:	EPA 9056A	Date Received:	01/27/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268868	Analysis Date/Time:	01/27/2023 13:46
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283980
Analytical Method:	EPA 9060A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 20:19
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.65	J	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283979
Analytical Method:	EPA 9056A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268868	Analysis Date/Time:	01/27/2023 13:05
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.3	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.94		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.0		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283979
Analytical Method:	EPA 9060A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 20:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284322
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 16:25
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.6	J	1.0	1.5	3.0	3.2
14808-79-8	Sulfate	38		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284322
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 19:47
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14797-55-8	Nitrate Nitrogen	6.3		0.60	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284322
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 22:28
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 410.4	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	269036	Analysis Date/Time:	02/07/2023 13:41
Analytical Prep Batch #:	128538	Prep. Date/Time:	02/04/2023 08:40

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
COD	COD	74	J	M	18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 9040C	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268915	Analysis Date/Time:	01/30/2023 15:10
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.62		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284323
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 16:45
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.8		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.33	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	1.9	J	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **49MW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284323
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 22:46
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284319
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 15:24
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.5		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	11		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **49MW03**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284319
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 21:08
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283673
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 13:20
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.38	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	64		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283673
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 16:52
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283676
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 14:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	44		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283676
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:34
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283674
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 13:41
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.39	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	64		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283674
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:03
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284324
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 17:05
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.9		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284324
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 20:28
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	80		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284324
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 22:57
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284713

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	11/1/22	09:41	15.00	13.71	91	90	110
Nitrate Nitrogen	11/1/22	09:41	3.50	3.317	95	90	110
Sulfate	11/1/22	09:41	25.00	22.65	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036

Lab Sample ID: 1287264

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	2/7/23 13:41	400.0	397.8	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285557

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	4/27/22	11:14	50.0	49.82	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284696

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/26/23	12:39	15.00	13.51	90	90	110
Nitrate Nitrogen	1/26/23	12:39	3.50	3.515	100	90	110
Sulfate	1/26/23	12:39	25.00	23.18	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284701

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/26/23	16:42	15.00	14.50	97	90	110
Nitrate Nitrogen	1/26/23	16:42	3.50	3.666	105	90	110
Sulfate	1/26/23	16:42	25.00	24.40	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838 Lab Sample ID: 1284707

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/26/23	21:05	15.00	15.00	100	90	110
Nitrate Nitrogen	1/26/23	21:05	3.50	3.724	106	90	110
Sulfate	1/26/23	21:05	25.00	25.02	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284711

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/27/23	08:52	15.00	14.18	95	90	110
Nitrate Nitrogen	1/27/23	08:52	3.50	3.578	102	90	110
Sulfate	1/27/23	08:52	25.00	24.51	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284715

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/27/23	10:54	15.00	14.66	98	90	110
Nitrate Nitrogen	1/27/23	10:54	3.50	3.679	105	90	110
Sulfate	1/27/23	10:54	25.00	24.99	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268885 Lab Sample ID: 1284751

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/28/23	13:44	15.00	14.13	94	90	110
Nitrate Nitrogen	1/28/23	13:44	3.50	3.600	103	90	110
Sulfate	1/28/23	13:44	25.00	23.61	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268885

Lab Sample ID: 1284754

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/28/23	18:06	15.00	14.50	97	90	110
Nitrate Nitrogen	1/28/23	18:06	3.50	3.586	102	90	110
Sulfate	1/28/23	18:06	25.00	24.35	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268885 Lab Sample ID: 1284759

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/28/23	21:48	15.00	15.07	100	90	110
Nitrate Nitrogen	1/28/23	21:48	3.50	3.532	101	90	110
Sulfate	1/28/23	21:48	25.00	25.63	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268868

Lab Sample ID: 1285595

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/27/23	12:05	15.00	14.54	97	90	110
Nitrate Nitrogen	1/27/23	12:05	3.50	3.740	107	90	110
Sulfate	1/27/23	12:05	25.00	25.41	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268868

Lab Sample ID: 1285601

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	1/27/23	16:27	15.00	14.68	98	90	110
Nitrate Nitrogen	1/27/23	16:27	3.50	3.670	105	90	110
Sulfate	1/27/23	16:27	25.00	25.20	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036

Lab Sample ID: 1287266

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	2/7/23 13:41	400.0	402.6	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036

Lab Sample ID: 1287268

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	2/7/23 13:41	400.0	402.6	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285119

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23	12:04	50.0	46.07	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285123

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23	15:19	50.0	45.70	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285128

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23	18:32	50.0	45.64	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285133

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23	21:56	50.0	45.07	90	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268893

Lab Sample ID: 1285157

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23 18:32	50.0	45.64	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268893

Lab Sample ID: 1285160

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23	21:56	50.0	45.07	90	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268893 Lab Sample ID: 1285165

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	1/30/23	23:51	50.0	45.41	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285558

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	04/27/2022 11:28	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285558

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	04/27/2022 11:28	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036

Lab Sample ID: 1287265

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	02/07/2023 13:41	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-1

ICB

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284714

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/31/2022 16:43	0.5780	U	1.0	1.5
Nitrate Nitrogen	10/31/2022 16:43	0	U	0.12	0.20
Sulfate	10/31/2022 16:43	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285124

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 15:33	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285124

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 15:33	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285134

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 22:10	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285134

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 22:10	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285136

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 19:01	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891

Lab Sample ID: 1285136

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 19:01	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268893

Lab Sample ID: 1285161

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 22:10	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268893

Lab Sample ID: 1285166

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/31/2023 00:04	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036

Lab Sample ID: 1287267

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	02/07/2023 13:41	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036

Lab Sample ID: 1287269

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	02/07/2023 13:41	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284697

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/26/2023 13:00	0	U	1.0	1.5
Nitrate Nitrogen	01/26/2023 13:00	0	U	0.12	0.20
Sulfate	01/26/2023 13:00	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284708

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/26/2023 21:26	0.5838	U	1.0	1.5
Nitrate Nitrogen	01/26/2023 21:26	0	U	0.12	0.20
Sulfate	01/26/2023 21:26	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284712

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/27/2023 09:13	0	U	1.0	1.5
Nitrate Nitrogen	01/27/2023 09:13	0	U	0.12	0.20
Sulfate	01/27/2023 09:13	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838

Lab Sample ID: 1284716

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/27/2023 11:14	0.5751	U	1.0	1.5
Nitrate Nitrogen	01/27/2023 11:14	0	U	0.12	0.20
Sulfate	01/27/2023 11:14	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268885

Lab Sample ID: 1284755

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/28/2023 18:26	0.5840	U	1.0	1.5
Nitrate Nitrogen	01/28/2023 18:26	0	U	0.12	0.20
Sulfate	01/28/2023 18:26	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268885

Lab Sample ID: 1284760

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/28/2023 22:08	0.5773	U	1.0	1.5
Nitrate Nitrogen	01/28/2023 22:08	0	U	0.12	0.20
Sulfate	01/28/2023 22:08	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268868

Lab Sample ID: 1285642

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/27/2023 17:08	0.5748	U	1.0	1.5
Nitrate Nitrogen	01/27/2023 17:08	0	U	0.12	0.20
Sulfate	01/27/2023 17:08	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285121

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 12:32	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268891 Lab Sample ID: 1285121

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 12:32	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268893

Lab Sample ID: 1285159

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	01/30/2023 19:01	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 269036 Lab Sample ID: 1286262

Analytical Prep Batch #: 128538 Preparation Date/Time: 02/04/2023 08:40

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total COD	02/07/2023 13:41	0	U	18	37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

SDG No.: 175065

Analytical Run #: 268838 Lab Sample ID: 1284703

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/26/2023 17:23	0.5755	U	1.0	1.5
Nitrate Nitrogen	01/26/2023 17:23	0	U	0.12	0.20
Sulfate	01/26/2023 17:23	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268885 Lab Sample ID: 1284753

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/28/2023 14:24	0	U	1.0	1.5
Nitrate Nitrogen	01/28/2023 14:24	0	U	0.12	0.20
Sulfate	01/28/2023 14:24	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 175065

Analytical Run #: 268868

Lab Sample ID: 1285597

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	01/27/2023 12:45	0.5775	U	1.0	1.5
Nitrate Nitrogen	01/27/2023 12:45	0	U	0.12	0.20
Sulfate	01/27/2023 12:45	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1285125	Parent Sample No.:	1283670
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268891	ICAL Calibration #:	ICAL0590

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/30/2023	Analysis Time: --------	15:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	46.5		BDL	U	50.0	93		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1285163	Parent Sample No.:	1284324
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268893	ICAL Calibration #:	ICAL0590

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/30/2023	Analysis Time: --------	23:25

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	46.5		BDL	U	50.0	93		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1286265	Parent Sample No.:	1284325
Analytical Prep Batch #:	128538	Analytical Preparation Date/Time:	02/04/2023 08:40
Analytical Run #:	269036	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 02/07/2023 Analysis Time: -------- 13:41

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
COD	90-110	254		74	J	148	122		SP	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1284699	Parent Sample No.:	1283670
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268838	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/26/2023	Analysis Time: --------	16:02

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	11.6		4.3		8.0	91		IC
Nitrate Nitrogen	88-111	2.86		0.79		2.0	104		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1284699	Parent Sample No.:	1283670
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268838	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: -------- 01/26/2023 Analysis Time: -------- 18:23

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sulfate	87-112	192		150		40.0	105		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1284757	Parent Sample No.:	1284317
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268885	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/28/2023	Analysis Time: --------	21:08

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	13.0		5.0		8.0	100		IC
Nitrate Nitrogen	88-111	3.83		1.7		2.0	106		IC
Sulfate	87-112	60.5		53		8.0	94		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1285599	Parent Sample No.:	1283979
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268868	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/27/2023	Analysis Time: --------	14:26

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	8.68		1.3	J	8.0	92		IC
Nitrate Nitrogen	88-111	3.02		0.94		2.0	104		IC
Sulfate	87-112	10.1		3.0	J	8.0	89		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1285126	Parent Sample No.:	1285125
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268891	ICAL Calibration #:	ICAL0590

Analysis Type: *Initial Analysis* Analysis Date: -------- 01/30/2023 Analysis Time: -------- 16:04

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	45.8		BDL	U	50.0	92		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1285164	Parent Sample No.:	1285163
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268893	ICAL Calibration #:	ICAL0590

Analysis Type: *Initial Analysis* Analysis Date: -------- 01/30/2023 Analysis Time: -------- 23:38

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	46.5		BDL	U	50.0	93		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1286266	Parent Sample No.:	1286265
Analytical Prep Batch #:	128538	Analytical Preparation Date/Time:	02/04/2023 08:40
Analytical Run #:	269036	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 02/07/2023 Analysis Time: -------- 13:41

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
COD	90-110	258		74	J	148	124		SP	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1284700	Parent Sample No.:	1284699
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268838	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/26/2023	Analysis Time: --------	16:22

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	11.9		4.3		8.0	95		IC
Nitrate Nitrogen	88-111	2.90		0.79		2.0	106		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1284700	Parent Sample No.:	1284699
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268838	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: -------- 01/26/2023 Analysis Time: -------- 18:44

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sulfate	87-112	190		150		40.0	100		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1284758	Parent Sample No.:	1284757
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268885	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	01/28/2023	Analysis Time: --------	21:28

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	13.0		5.0		8.0	100		IC
Nitrate Nitrogen	88-111	3.84		1.7		2.0	107		IC
Sulfate	87-112	60.8		53		8.0	98		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	175065
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1285600	Parent Sample No.:	1285599
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	268868	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 01/27/2023 Analysis Time: -------- 14:46

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	8.81		1.3	J	8.0	94		IC
Nitrate Nitrogen	88-111	3.04		0.94		2.0	105		IC
Sulfate	87-112	10.2		3.0	J	8.0	90		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: S.U.
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268915
ICAL Calibration #:
Sample #: 1285112
Parent Sample #: 1284325

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	01/30/2023 15:10	1	7.62		7.66		1		ECTRC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW5

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268891
ICAL Calibration #: ICAL0590
Sample #: 1285122
Parent Sample #: 1283670

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	01/30/2023 15:02	20	0.5	U	0.5	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

50MW2

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268893
ICAL Calibration #: ICAL0590
Sample #: 1285162
Parent Sample #: 1284324

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	01/30/2023 23:11	20	0.5	U	0.5	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID
SDG No.: 175065

% Solid for Sample:
Concentration Units: mg/L

Analytical Prep Batch #: 128538
Analytical Preparation Date/Time: 02/04/2023 08:40

Analytical Run #: 269036
ICAL Calibration #:

Sample #: 1286264
Parent Sample #: 1284325

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
COD	02/07/2023 13:41	20	74	J	73.6	J	1		SP

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW5

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268838
ICAL Calibration #:
Sample #: 1284698
Parent Sample #: 1283670

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	01/26/2023	15:42	10	4.3		4.23		2		IC
Nitrate Nitrogen	01/26/2023	15:42	10	0.79		0.787		0		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW5

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268838
ICAL Calibration #:
Sample #: 1284698
Parent Sample #: 1283670

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	01/26/2023 18:03	10	150		145		3		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW1

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268885
ICAL Calibration #:
Sample #: 1284756
Parent Sample #: 1284317

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	01/28/2023	20:48	10	5.0		5.10		2		IC
Nitrate Nitrogen	01/28/2023	20:48	10	1.7		1.70		0		IC
Sulfate	01/28/2023	20:48	10	53		54.1		2		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW7

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268868
ICAL Calibration #:
Sample #: 1285598
Parent Sample #: 1283979

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	01/27/2023	14:06	10	1.3	J	1.31	J	1		IC
Nitrate Nitrogen	01/27/2023	14:06	10	0.94		0.942		0		IC
Sulfate	01/27/2023	14:06	10	3.0	J	2.96	J	1		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268891
ICAL Calibration #: ICAL0590
Sample #: 1285126
Parent Sample #: 1285125

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	01/30/2023 16:04	20	46.5		45.8		1		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **50MW2**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268893
ICAL Calibration #: ICAL0590
Sample #: 1285164
Parent Sample #: 1285163

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	01/30/2023 23:38	20	46.5		46.5		0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 128538
Analytical Preparation Date/Time: 02/04/2023 08:40
Analytical Run #: 269036
ICAL Calibration #:
Sample #: 1286266
Parent Sample #: 1286265

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
COD	02/07/2023 13:41	20	254		258		2		SP

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268838
ICAL Calibration #:
Sample #: 1284700
Parent Sample #: 1284699

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	01/26/2023	16:22	15	11.6		11.9		2		IC
Nitrate Nitrogen	01/26/2023	16:22	15	2.86		2.90		1		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268838
ICAL Calibration #:
Sample #: 1284700
Parent Sample #: 1284699

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	01/26/2023 18:44	15	192		190		1		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW1**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268885
ICAL Calibration #:
Sample #: 1284758
Parent Sample #: 1284757

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	01/28/2023	21:28	15	13.0		13.0		0		IC
Nitrate Nitrogen	01/28/2023	21:28	15	3.83		3.84		0		IC
Sulfate	01/28/2023	21:28	15	60.5		60.8		1		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW7**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 175065
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 268868
ICAL Calibration #:
Sample #: 1285600
Parent Sample #: 1285599

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	01/27/2023	14:46	15	8.68		8.81		1		IC
Nitrate Nitrogen	01/27/2023	14:46	15	3.02		3.04		1		IC
Sulfate	01/27/2023	14:46	15	10.1		10.2		1		IC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

LCS Source: SPEX and Ultra

SDG No.: 175065

Concentration Units: mg/L

Analytical Run #: 268891

Sample No.:#: 1285120

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	01/30/2023 12:18	85-111	47.64		50.0	95		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 175065

Concentration Units: mg/L

Analytical Run #: 268891

Sample No.:#: 1285120

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	01/30/2023 12:18	85-111	47.64		50.0	95		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 175065

Concentration Units: mg/L

Analytical Run #: 268893

Sample No.:#: 1285158

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	01/30/2023 18:46	85-111	47.26		50.0	95		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 175065

Concentration Units: mg/L

Analytical Run #: 269036 Sample No.:#: 1286263

Analytical Prep Batch #: 128538 Preparation Date/Time: 02/04/2023 08:40

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
COD	02/07/2023 13:41	90-110	414.6		400.0	104		SP

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

LCS Source: SPEX and Ultra

SDG No.: 175065

Concentration Units: mg/L

Analytical Run #: 268838

Sample No.:#: 1284702

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	01/26/2023 17:03	87-111	14.75		15.00	98		IC
Nitrate Nitrogen	01/26/2023 17:03	88-111	3.600		3.50	103		IC
Sulfate	01/26/2023 17:03	87-112	25.35		25.00	101		IC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No: **LCS**

LABORATORY CONTROL SAMPLE - AQUEOUS

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
LCS Source: SPEX and Ultra
SDG No.: 175065
Concentration Units: mg/L
Analytical Run #: 268885
Sample No.:#: 1284752
Analytical Prep Batch #: 0
Preparation Date/Time:
ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	01/28/2023 14:04	87-111	14.40		15.00	96		IC
Nitrate Nitrogen	01/28/2023 14:04	88-111	3.548		3.50	101		IC
Sulfate	01/28/2023 14:04	87-112	25.81		25.00	103		IC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 175065

Concentration Units: mg/L

Analytical Run #: 268868

Sample No.:#: 1285596

Analytical Prep Batch #: 0

Preparation Date/Time:

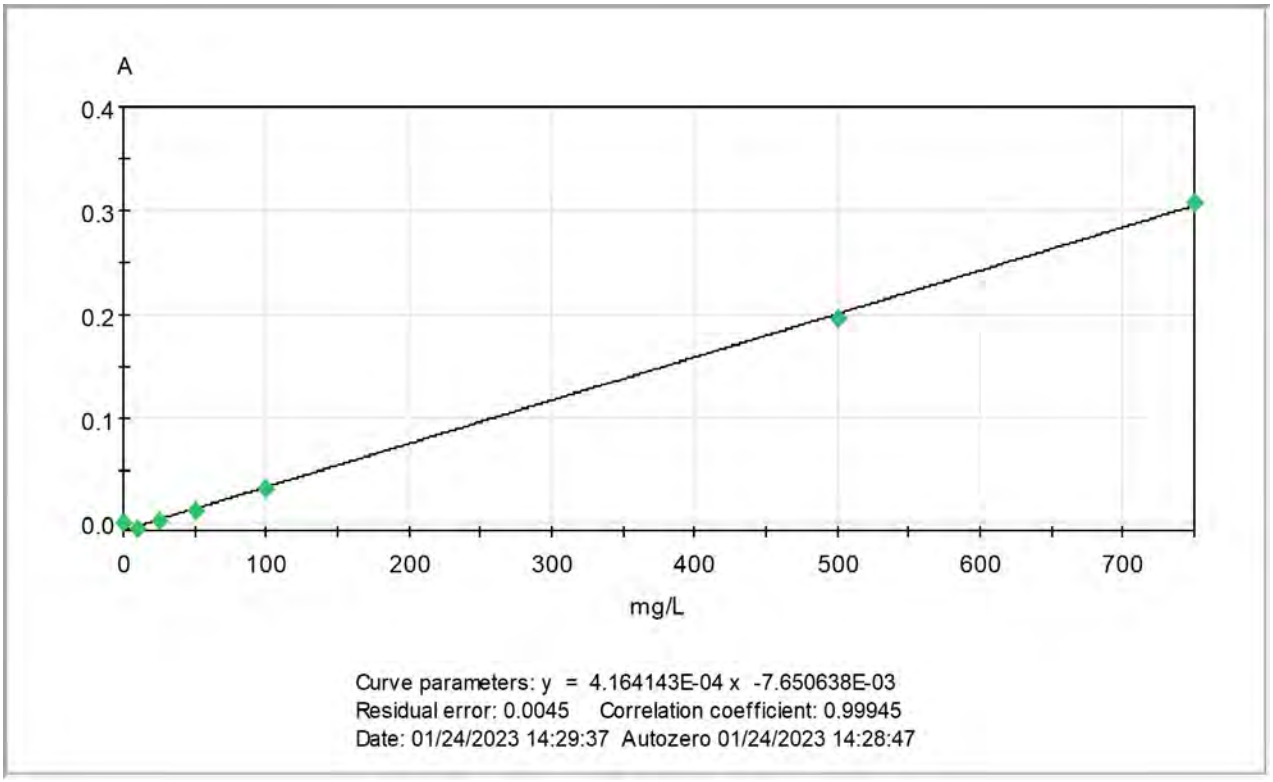
ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	01/27/2023 12:25	87-111	14.66		15.00	98		IC
Nitrate Nitrogen	01/27/2023 12:25	88-111	3.642		3.50	104		IC
Sulfate	01/27/2023 12:25	87-112	25.93		25.00	104		IC

INORGANICS
RAW DATA
DOCUMENTS

Method: W54109.mqa (600 nm)
Last modified: 01/24/2023 14:30:05 by CTLABORATORIES\SPEC
Spectrophotometer: GENESYS 30
Serial number: 9A1W117104
Firmware: 104
Autozero: 01/24/2023 15:24:32
Measured: 01/24/2023 15:39:29 by CTLABORATORIES\SPEC
Result filename: 268744 745 746 DATA.rqa

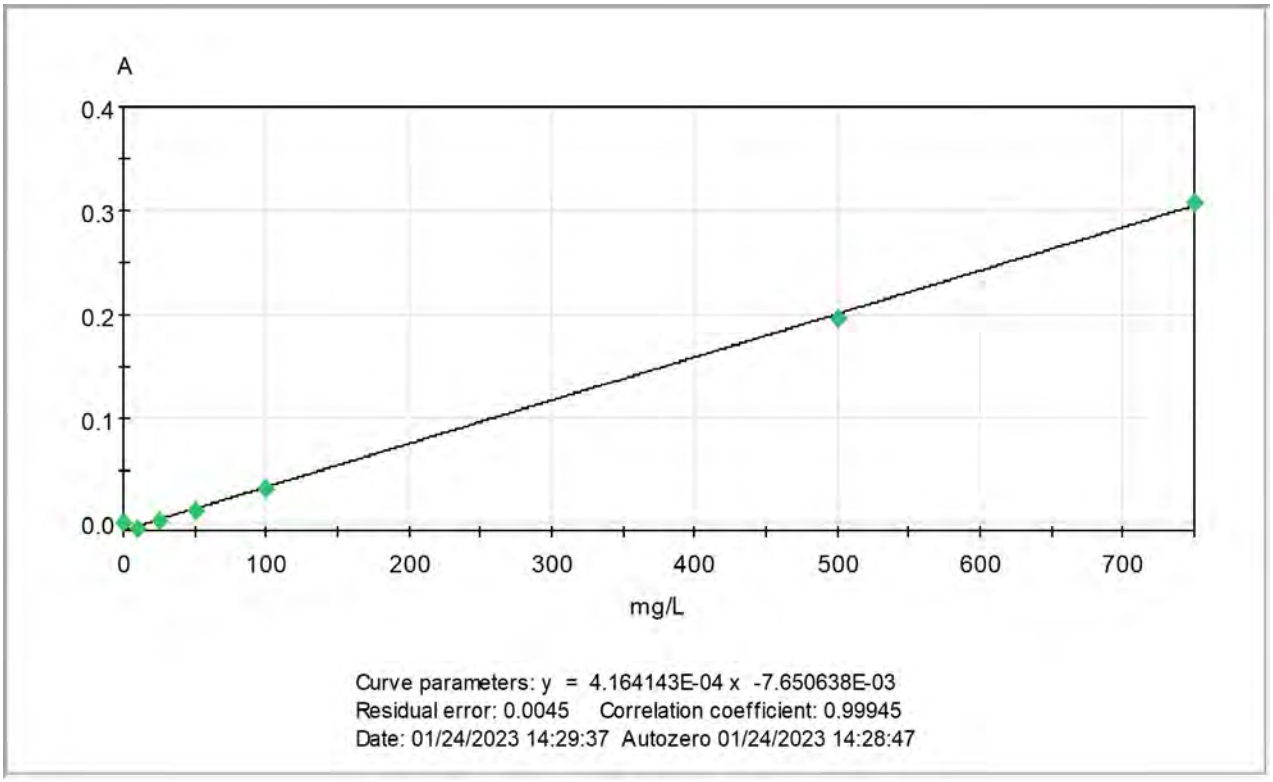


Standards

No.	Concentration [mg/L]	Ordinate [A]	Error [A]	Used
1	0.0	0.000	0.008	Yes
2	10.0	-0.006	-0.003	Yes
3	25.0	0.001	-0.002	Yes
4	50.0	0.012	-0.001	Yes
5	100.0	0.033	-0.001	Yes
6	500.0	0.196	-0.005	Yes
7	750.0	0.308	0.003	Yes

Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.162	407.4
ICB	1	-0.006	4.0

Method: W54109.mqa (600 nm)
Last modified: 01/24/2023 14:30:05 by CTLABORATORIES\SPEC
Spectrophotometer: GENESYS 30
Serial number: 9A1W117104
Firmware: 104
Autozero: 02/07/2023 13:37:05
Measured: 02/07/2023 13:41:08 by CTLABORATORIES\SPEC
Result filename: 269036 DATA.rqa



Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.158	397.8
ICB	1	-0.010	-5.6
CCV	1	0.160	402.6
CCB	1	-0.010	-5.6
1286263	1	0.165	414.6
1286262	1	-0.010	-5.6
1284325	1	0.023	73.6
DUP1284325	1	0.023	73.6
MSW1284325	1	0.098	253.7
MSDW1284325	1	0.100	258.5
CCV	1	0.160	402.6
CCB	1	-0.010	-5.6

Schedule File: C:\INSTARCH\Sequences\System 2\103122 - ic4429.SCH

Line	Sample	Sample Type	Level	Method	Data File
4	STD1	Calibration St	1	ic4429.met	std1_004.dxd
5	STD2	Calibration St	2	ic4429.met	std2_005.dxd
6	STD3	Calibration St	3	ic4429.met	std3_006.dxd
7	STD4	Calibration St	4	ic4429.met	std4_007.dxd
8	STD5	Calibration St	5	ic4429.met	std5_008.dxd
9	STD6	Calibration St	6	ic4429.met	std6_009.dxd
10	STD7	Calibration St	7	ic4429.met	std7_010.dxd
11	STD8	Calibration St	8	ic4429.met	std8_011.dxd
12	STD9	Calibration St	9	ic4429.met	std9_012.dxd
16	ICB	Sample		ic4429.met	icb_016.dxd
19	ICV	Sample		ic4429.met	icv_019.dxd

Calibration Concentrations

Instrument:	DX-120 (2)	Cal. File:	IC4429		ICV	IC4419 IC4431		Analyst/Date: TMG 10/31/2022		
Analyte	Cal Level 1 (mg/L)	Cal Level 2 (mg/L)	Cal Level 3 (mg/L)	Cal Level 4 (mg/L)	Cal Level 5 (mg/L)	Cal Level 6 (mg/L)	Cal Level 7 (mg/L)	Cal Level 8 (mg/L)	Cal Level 9 (mg/L)	ICV (mg/L)
Fluoride	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Chloride	0.0	0.5	0.75	1.0	5.0	10.0	20.0	30.0	40.0	15.0
Bromide	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrite	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrate	0.0	0.1	0.30	0.5	1.0	2.0	5.0	7.0		3.5
O-Phoshorous	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Sulfate	0.0	0.5	0.75	1.0	5.0	10.0	30.0	50.0	70.0	25.0

RJ 11/30/2022

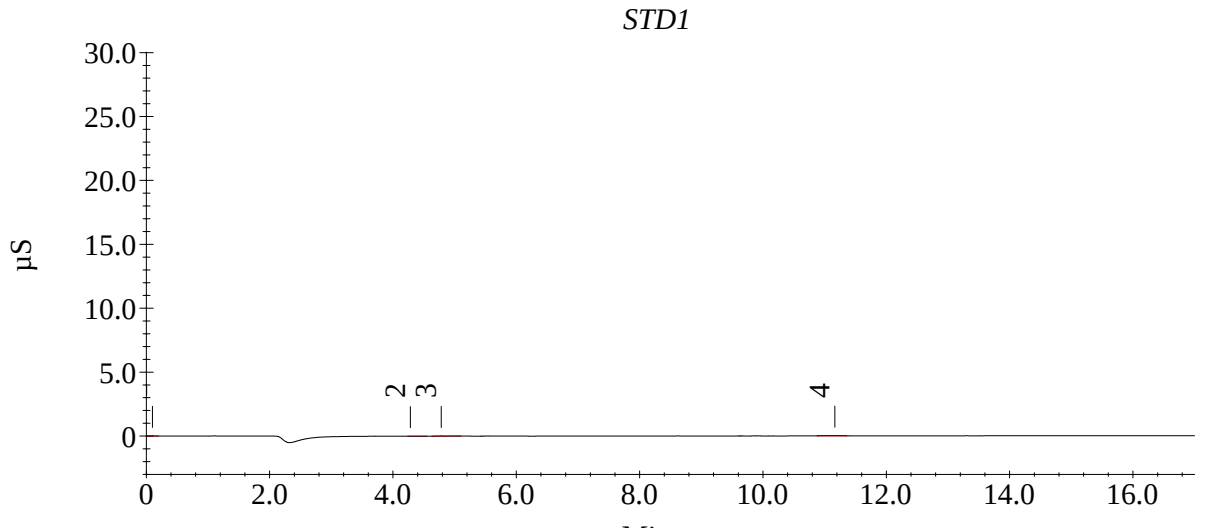
Calibration Update Report

Sample Name : STD1
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\STD1_004.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Schedule File Name : c:\instarch\sequences\system 2\103122 - ic4429.sch
Date Time Collected : 10/31/22 12:52
Calibration Date : 10/31/22 13:09
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
3	Chloride	4.78	0	2074	2074
4	O.Phos	11.17	0	1376	1376



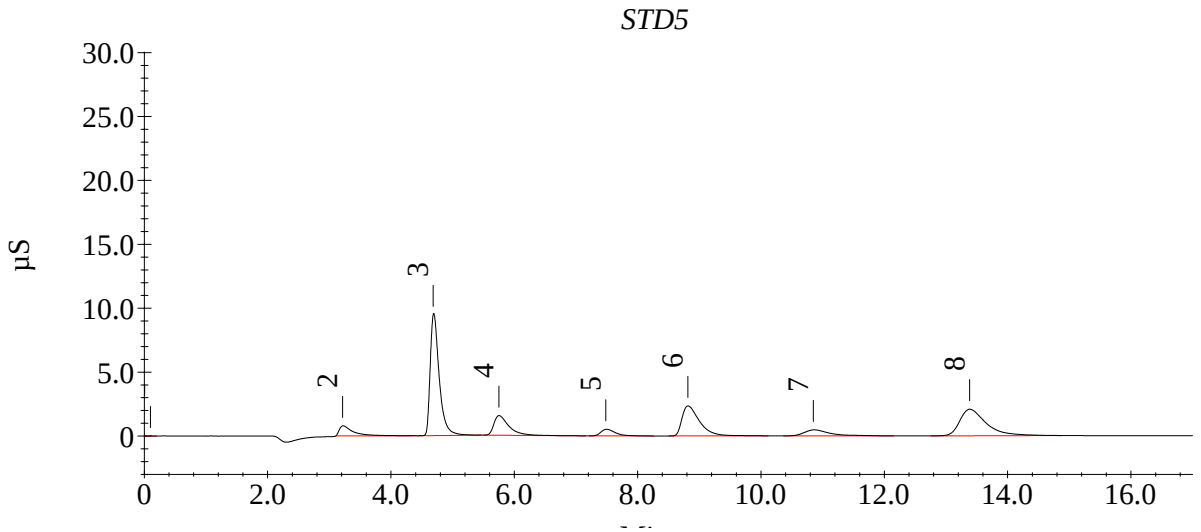
Calibration Update Report

Sample Name : STD5
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\STD5_008.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Schedule File Name : c:\instarch\sequences\system 2\103122 - ic4429.sch
Date Time Collected : 10/31/22 14:09
Calibration Date : 10/31/22 14:26
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	3.22	0	124279	124279
3	Chloride	4.68	0	966865	966865
4	Nitrite	5.75	0	259453	259453
5	Bromide	7.48	0	83785	83785
6	Nitrate	8.82	0	463577	463577
7	O.Phos	10.85	0	138520	138520
8	Sulfate	13.38	0	620958	620958



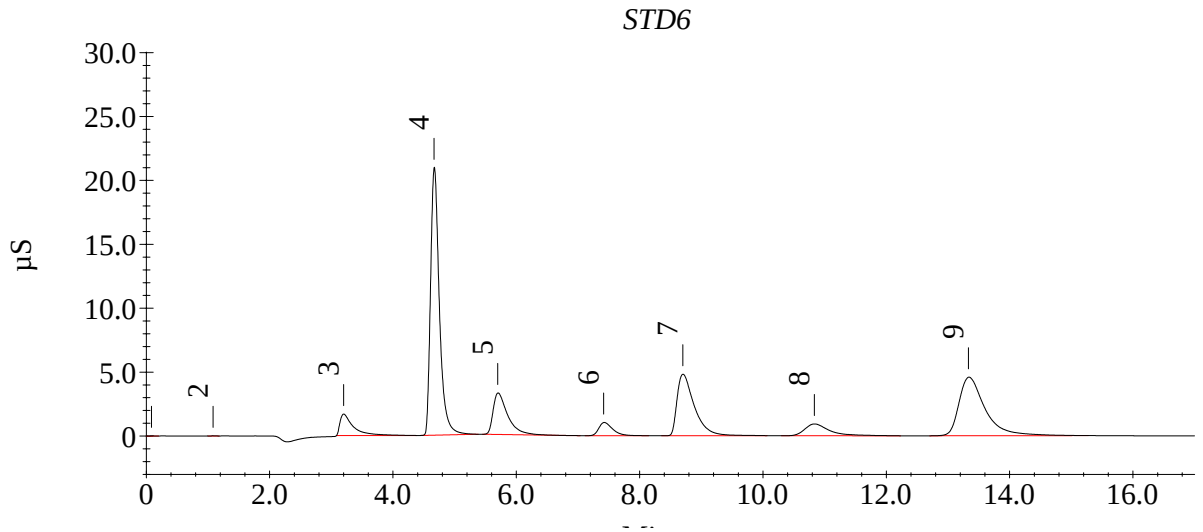
Calibration Update Report

Sample Name : STD6
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\STD6_009.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Schedule File Name : c:\instarch\sequences\system 2\103122 - ic4429.sch
Date Time Collected : 10/31/22 14:28
Calibration Date : 10/31/22 14:45
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
3	Fluoride	3.20	0	257541	257541
4	Chloride	4.67	0	2070790	2070790
5	Nitrite	5.70	0	531142	531142
6	Bromide	7.42	0	161497	161497
7	Nitrate	8.70	0	933734	933734
8	O.Phos	10.83	0	260177	260177
9	Sulfate	13.33	0	1345254	1345254



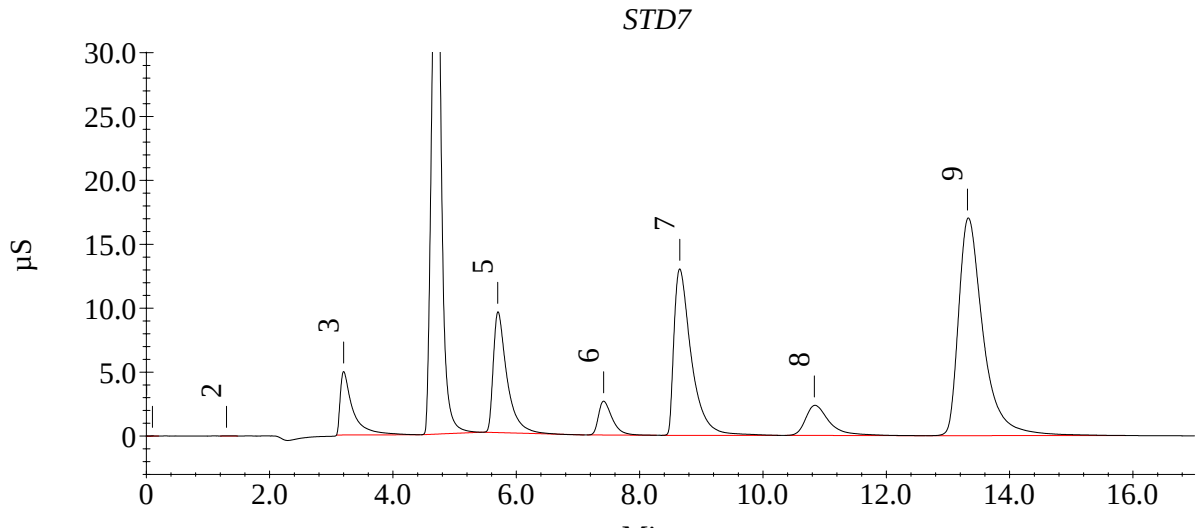
Calibration Update Report

Sample Name : STD7
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\STD7_010.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Schedule File Name : c:\instarch\sequences\system 2\103122 - ic4429.sch
Date Time Collected : 10/31/22 14:47
Calibration Date : 10/31/22 15:04
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
3	Fluoride	3.20	0	701888	701888
4	Chloride	4.70	0	4922856	4922856
5	Nitrite	5.70	0	1457843	1457843
6	Bromide	7.42	0	409419	409419
7	Nitrate	8.65	0	2538123	2538123
8	O.Phos	10.83	0	633374	633374
9	Sulfate	13.32	0	4711014	4711014



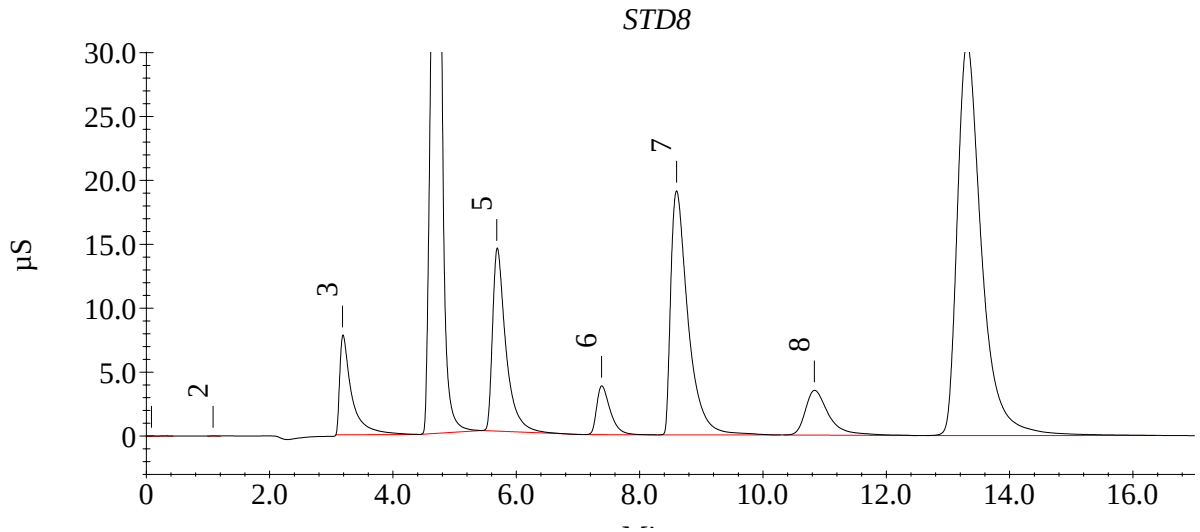
Calibration Update Report

Sample Name : STD8
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\STD8_011.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Schedule File Name : c:\instarch\sequences\system 2\103122 - ic4429.sch
Date Time Collected : 10/31/22 15:07
Calibration Date : 10/31/22 15:24
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
3	Fluoride	3.18		1052583	
4	Chloride	4.72	0	7447795	7447795
5	Nitrite	5.68		2153344	
6	Bromide	7.38		581733	
7	Nitrate	8.60	0	3723065	3723065
8	O.Phos	10.83		922366	
9	Sulfate	13.30	0	8361825	8361825



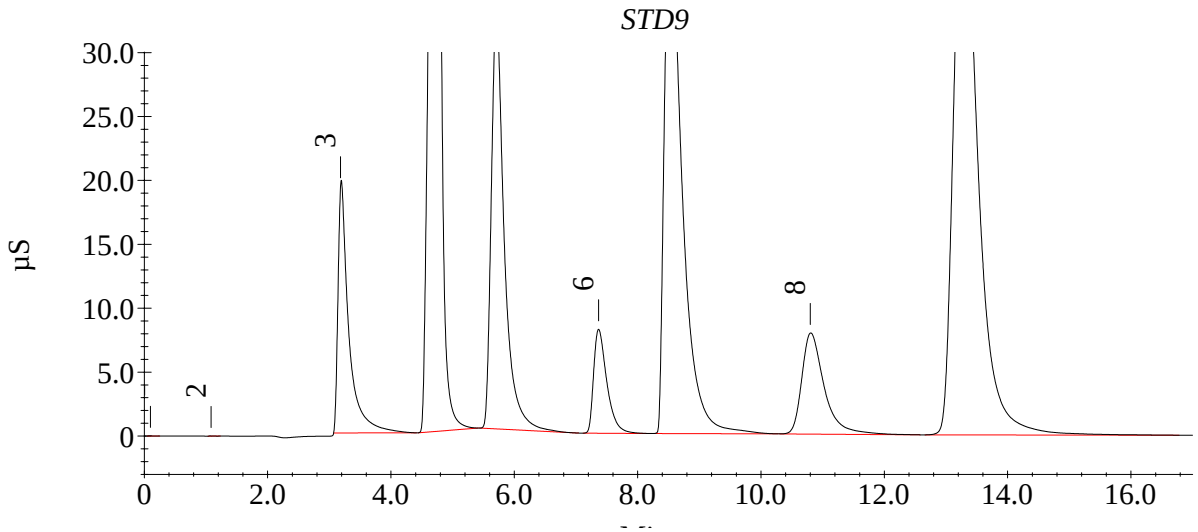
Calibration Update Report

Sample Name : STD9
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\STD9_012.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Schedule File Name : c:\instarch\sequences\system 2\103122 - ic4429.sch
Date Time Collected : 10/31/22 15:26
Calibration Date : 10/31/22 15:43
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
3	Fluoride	3.18		2384042	
4	Chloride	4.73	0	10208007	10208007
5	Nitrite	5.70		4779544	
6	Bromide	7.37		1211000	
7	Nitrate	8.52		8174131	
8	O.Phos	10.80		1995564	
9	Sulfate	13.28	0	12147893	12147893



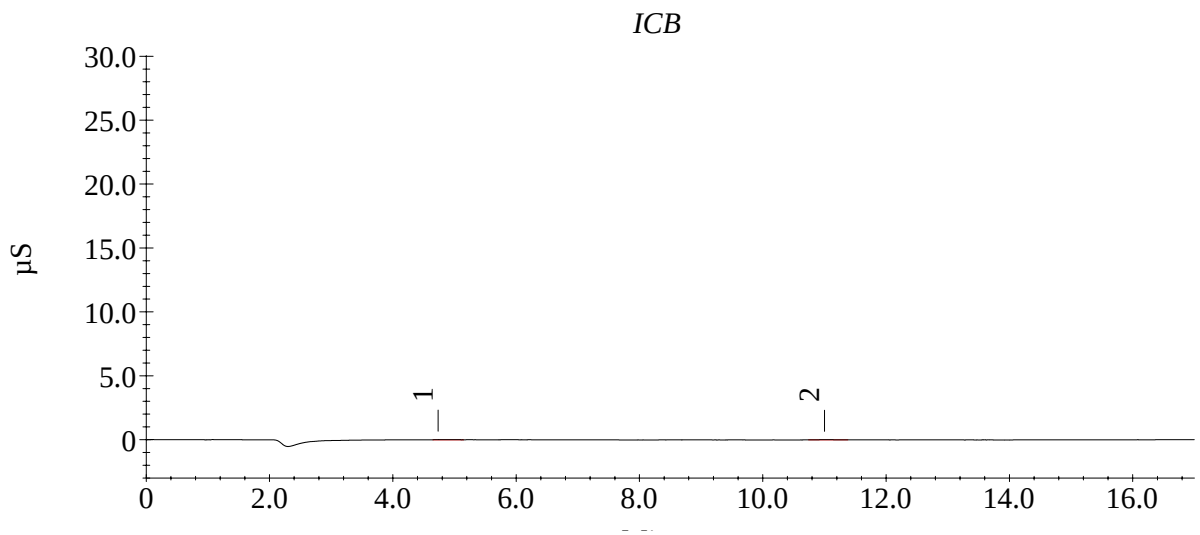
Sample Analysis Report

Sample Name : ICB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\ICB_016.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 10/31/22 16:43
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	4.73	0.5780	2169	127	
2	O.Phos	11.00	-0.0216	2357	113	



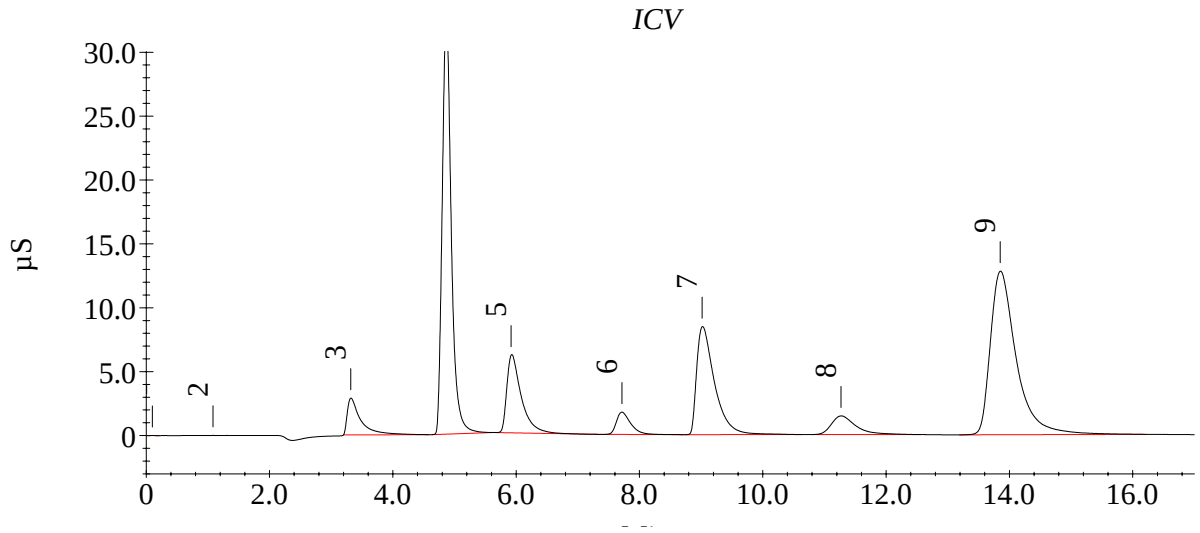
Sample Analysis Report

Sample Name : ICV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\103122 -\ICV_019.DXD

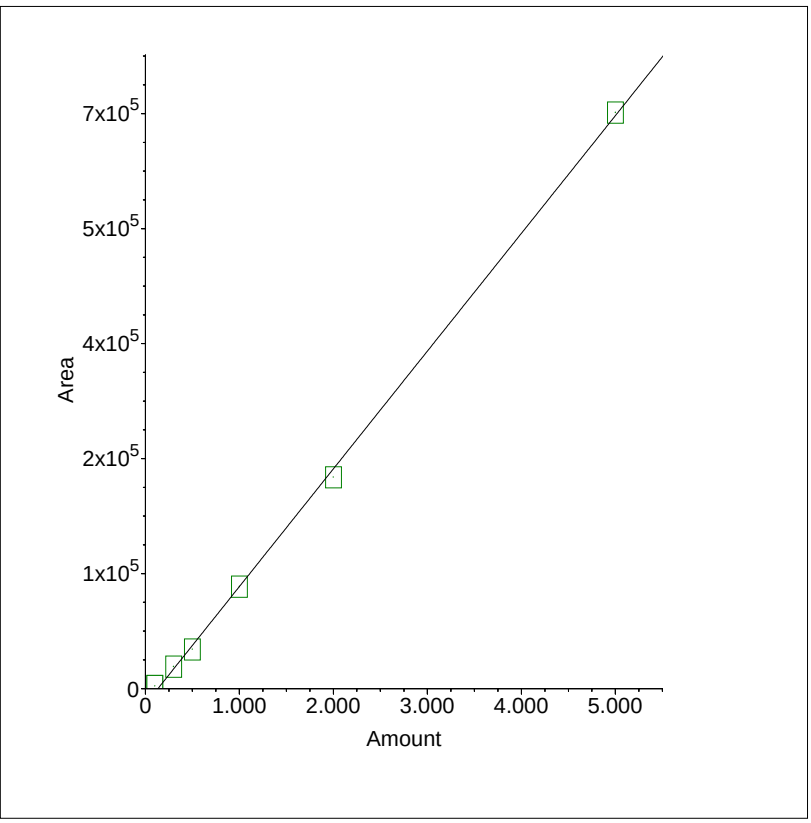
Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 11/1/22 09:41
System Operator : TMG

Peak Information : Found Components

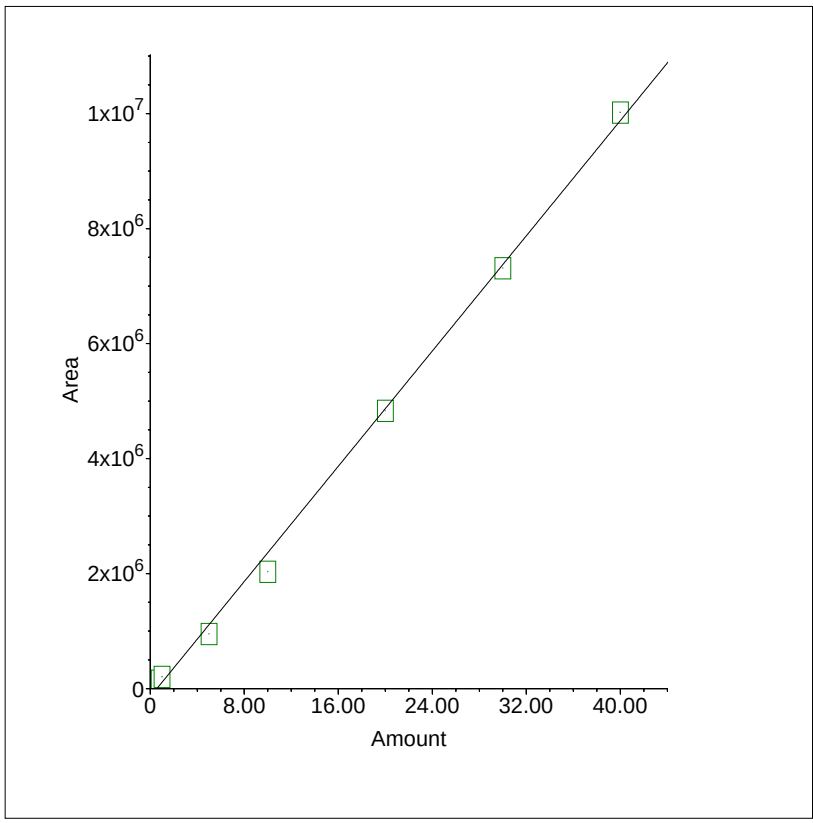
Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.32	3.1934	438861	28784	
4	Chloride	4.87	13.7061	3353008	327339	
5	Nitrite	5.92	3.4701	995133	60639	
6	Bromide	7.72	3.4514	282135	17437	
7	Nitrate	9.02	3.3174	1702320	84372	
8	O.Phos	11.27	3.1701	405013	14566	
9	Sulfate	13.85	22.6485	3733979	127856	



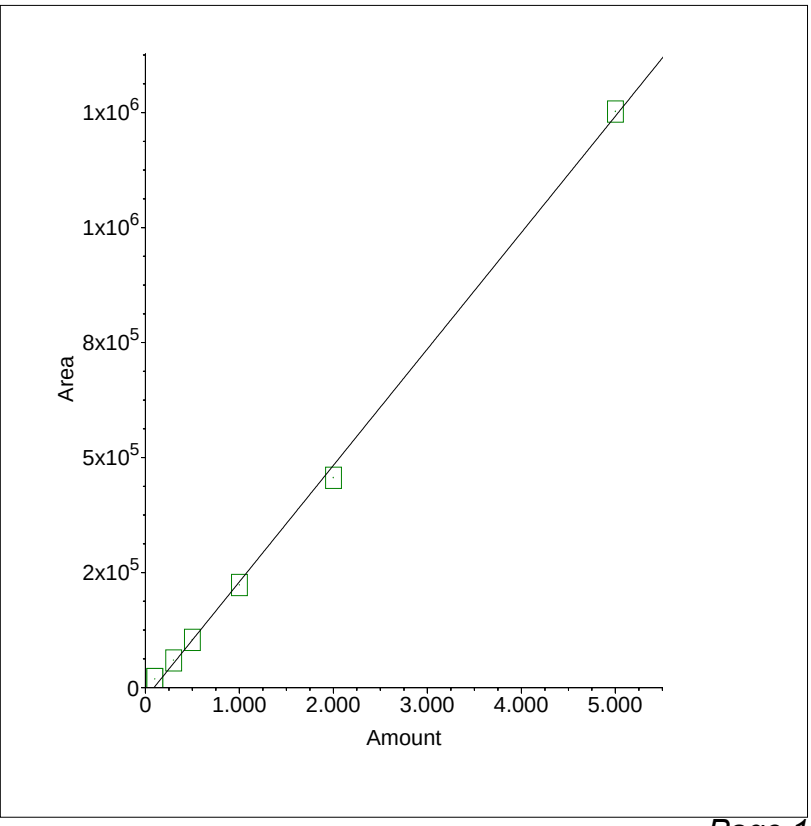
1. Component:Fluoride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999396
Amt=6.971e-006*Resp+0.1339



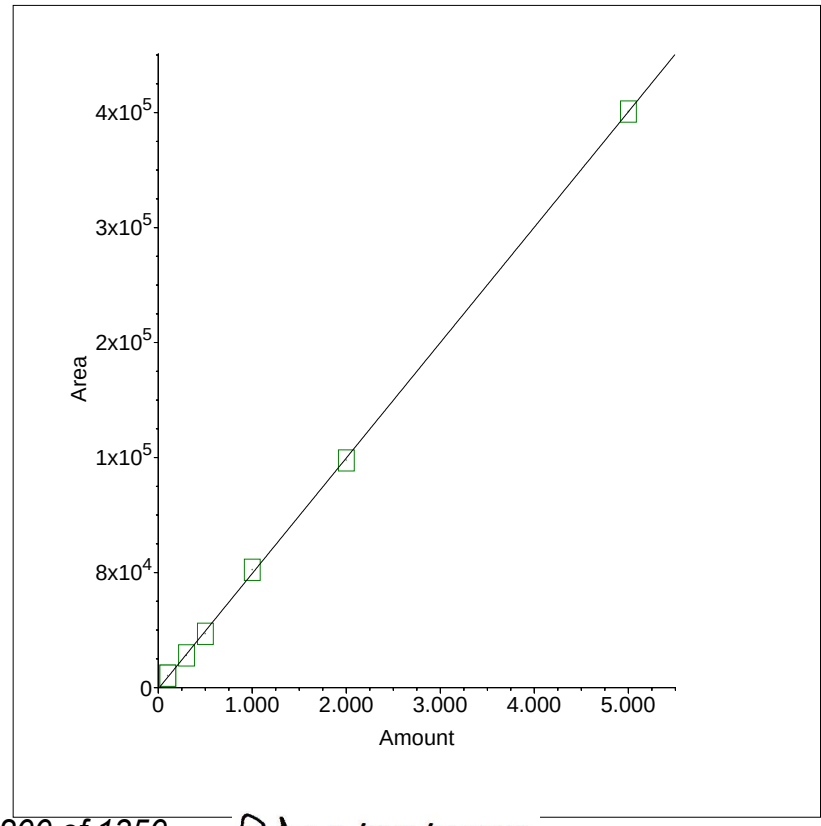
2. Component:Chloride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998069
Amt=3.918e-006*Resp+0.5695



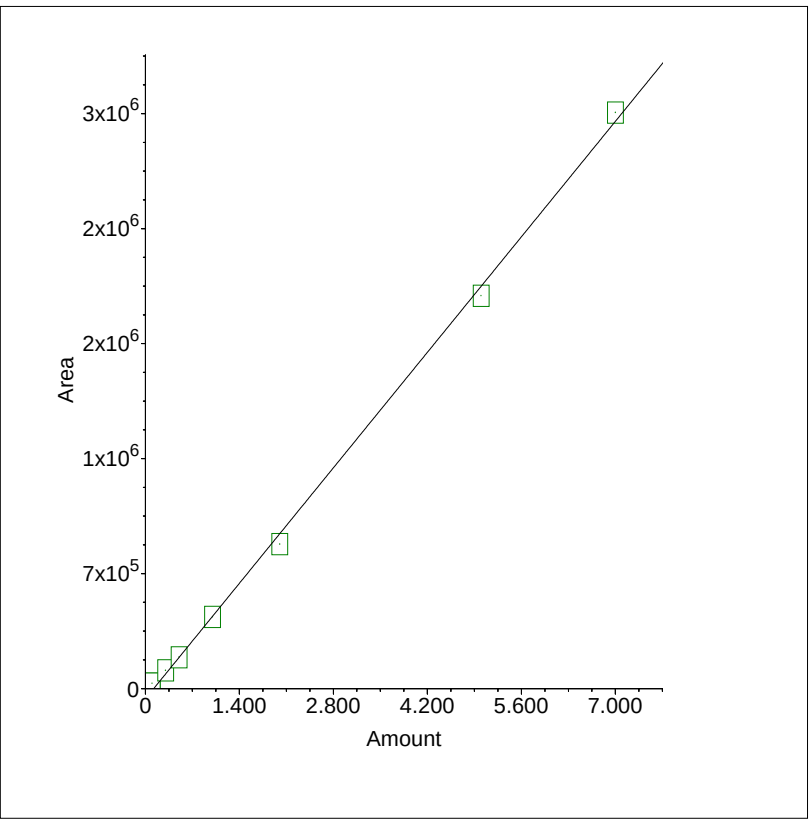
3. Component:Nitrite
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998934
Amt=3.395e-006*Resp+0.09182



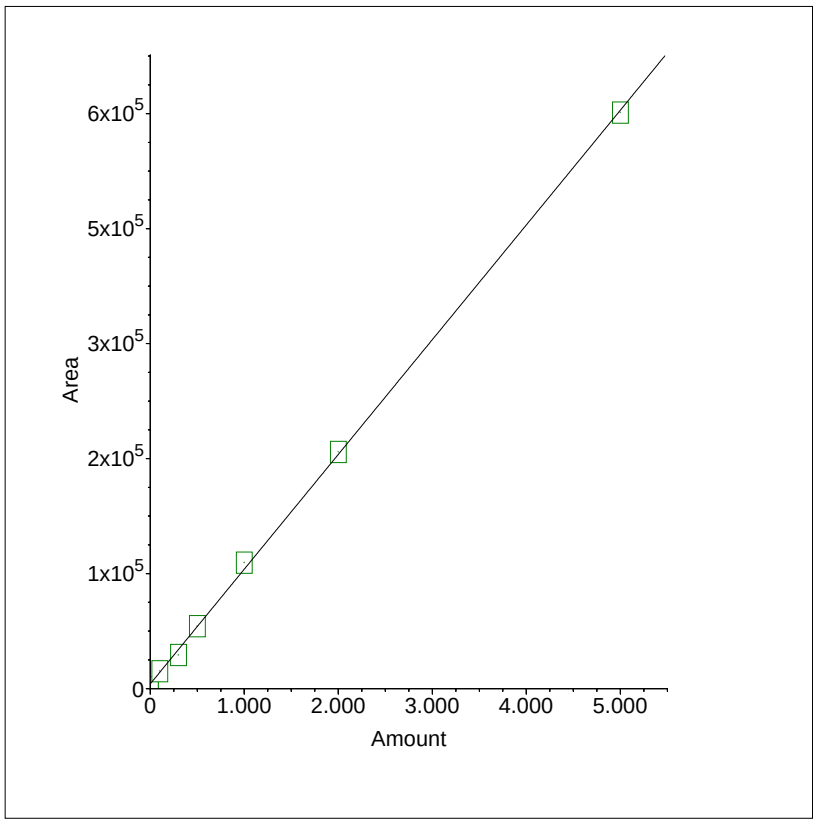
4. Component:Bromide
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999867
Amt=1.219e-005*Resp+0.01159



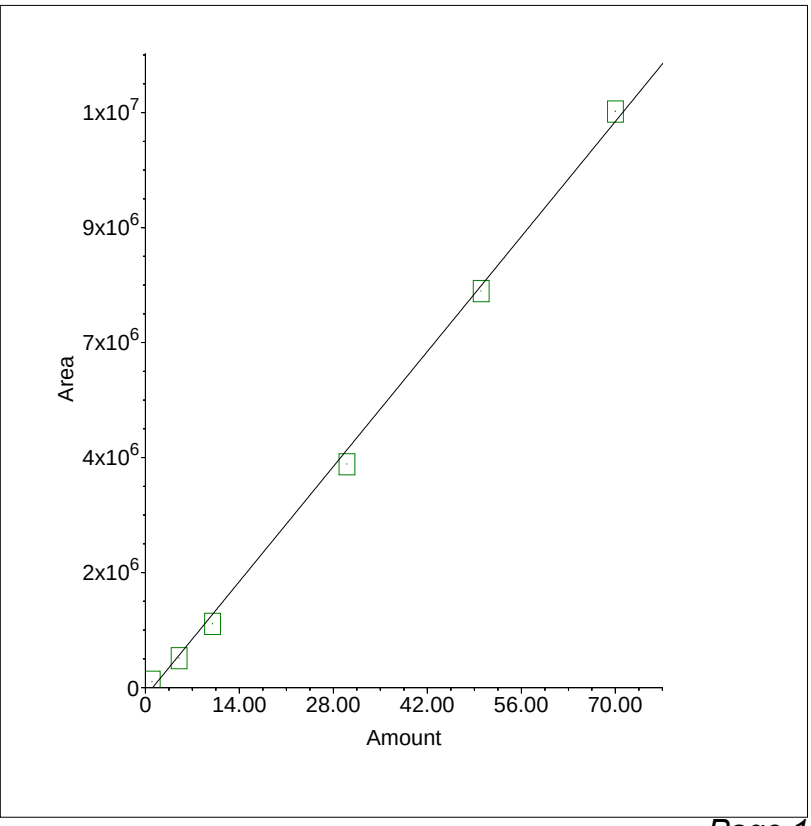
5. Component:Nitrate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998844
Amt=1.876e-006*Resp+0.1244



6. Component:O.Phos
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999612
Amt=7.927e-006*Resp+-0.0403



7. Component:Sulfate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998282
Amt=5.773e-006*Resp+1.091



RJ 11/30/2022

Schedule File: C:\INSTARCH\Sequences\System 2\012623 -.sch

Line	Sample	Sample Type	Level	Method
1	CCV	Sample		system 2\ic4429.met
2	CCB	Sample		system 2\ic4429.met
3	1283673	Sample		c:\instarch\methods\system 2\ic4429.met
4	1283674	Sample		system 2\ic4429.met
5	1283675	Sample		system 2\ic4429.met
6	1283676	Sample		system 2\ic4429.met
7	1283670	Sample		system 2\ic4429.met
8	1283671	Sample		system 2\ic4429.met
9	1283672	Sample		system 2\ic4429.met
10	DUP1283670	Sample		system 2\ic4429.met
11	MSW1283670	Sample		system 2\ic4429.met
12	MSDW1283670	Sample		system 2\ic4429.met
13	CCV	Sample		system 2\ic4429.met
14	LCSW	Sample		system 2\ic4429.met
15	MBW-CCB	Sample		system 2\ic4429.met
16	1283670X5	Sample		system 2\ic4429.met
17	DUP1283670X5	Sample		system 2\ic4429.met
18	MSW1283670X5	Sample		system 2\ic4429.met
19	MSDW1283670X5	Sample		system 2\ic4429.met
20	1283672X5	Sample		system 2\ic4429.met
21	1283674X5	Sample		system 2\ic4429.met
26	CCV	Sample		system 2\ic4429.met
27	CCB	Sample		system 2\ic4429.met
38	CCV	Sample		system 2\ic4429.met
39	CCB	Sample		system 2\ic4429.met
40	1283671X5	Sample		system 2\ic4429.met
44	CCV	Sample		system 2\ic4429.met
45	CCB	Sample		system 2\ic4429.met

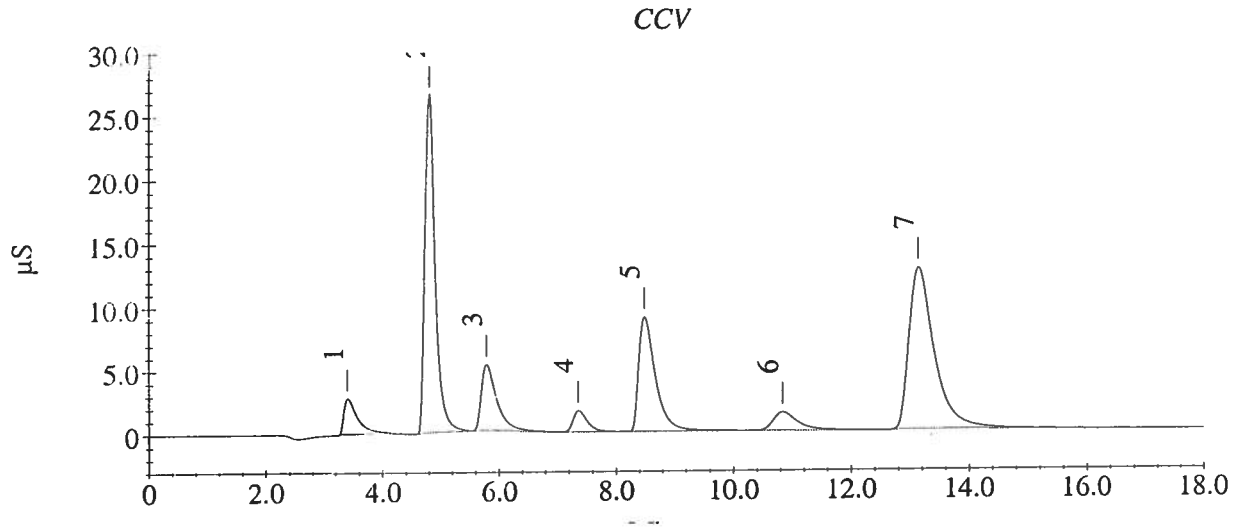
Sample Analysis Report

Sample Name : CCV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\012623 -\CCV_001.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 12:39
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.40	3.3891	466931	27793	
2	Chloride	4.80	13.5086	3302598	264894	
3	Nitrite	5.78	3.3985	974053	52193	
4	Bromide	7.35	3.4173	279345	16540	
5	Nitrate	8.48	3.5153	1807790	90031	
6	O.Phos	10.83	3.3860	432250	14560	
7	Sulfate	13.13	23.1819	3826368	127654	



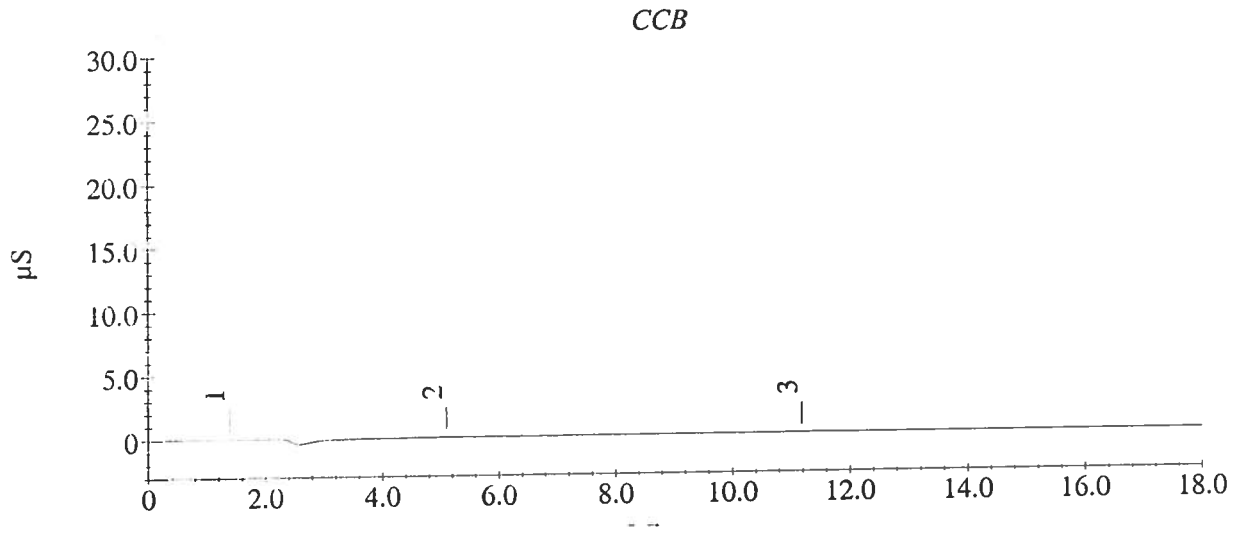
Sample Analysis Report

Sample Name : CCB
Data File Name : c:\instarch\data\system 2\012623 -\CCB_002.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 13:00
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Cl Phos	11.18	-0.0149	3207	93	



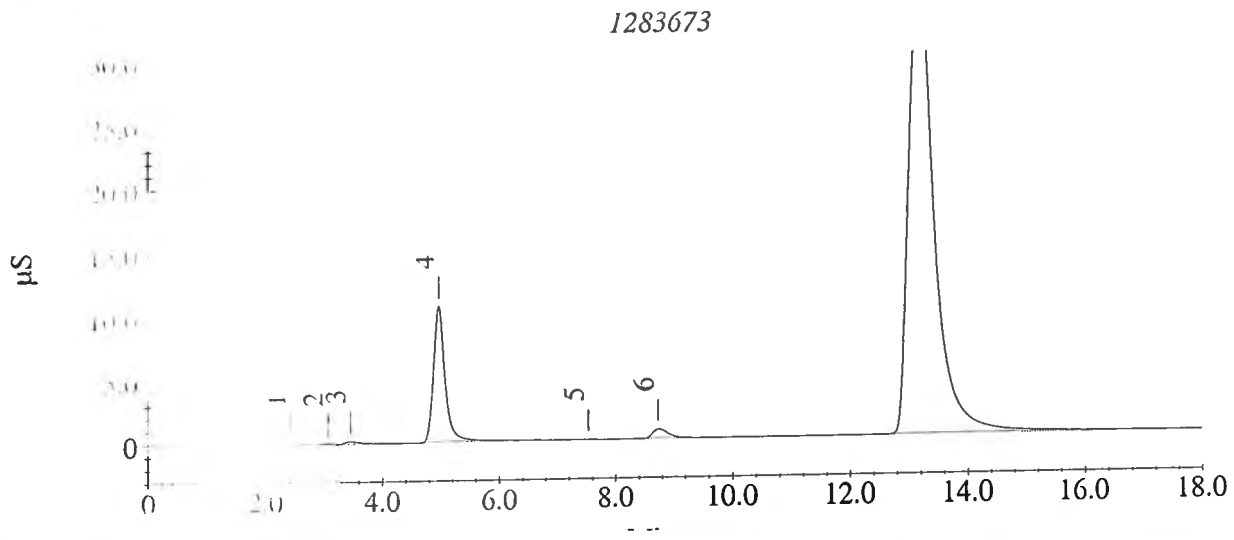
Sample Analysis Report

Sample Name : 1283673
Data File Name : c:\instaro\data\system 2\012623 -\1283673_003.DXD

Method File Name : c:\instaro\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 13:20
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.45	0.4133	40076	2081	
4	Chloride	4.97	6.2924	1460722	106215	
5	Bromide	7.53	0.0364	2032	138	
6	Nitrate	8.73	0.3823	137491	7224	
7	Sulfate	13.17	63.6462	10835329	367341	



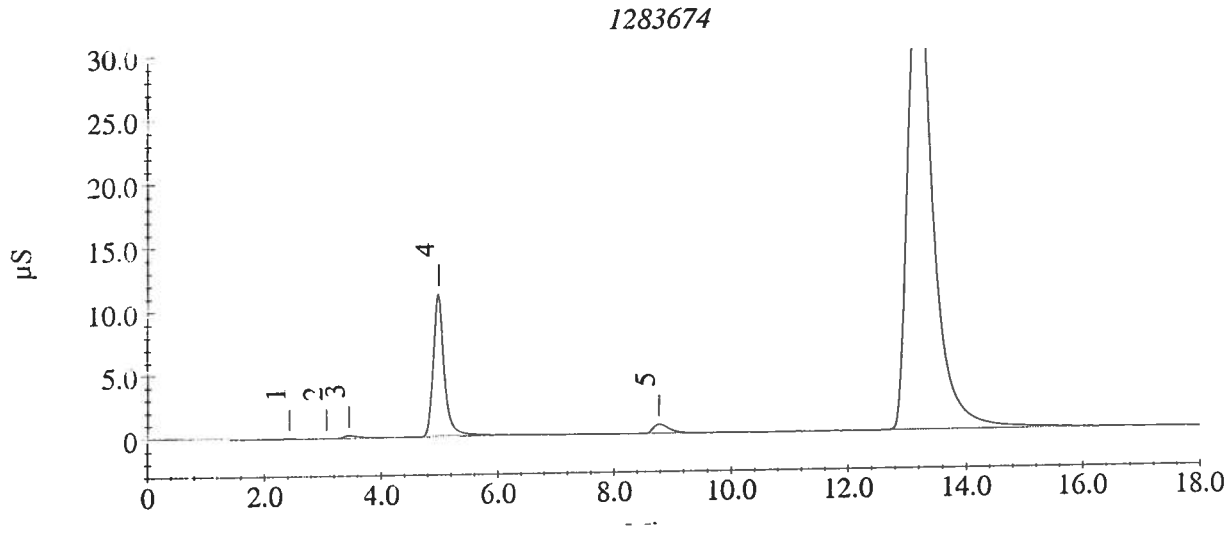
Sample Analysis Report

Sample Name : 1283674
Data File Name : c:\instarch\data\system 2\012623 -\1283674_004.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 13:41
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.45	0.4093	39492	2052	
4	Chloride	4.98	6.3943	1486721	112556	
5	Nitrate	8.78	0.3862	139582	7276	
6	Sulfate	13.18	63.7079	10846023	367789	



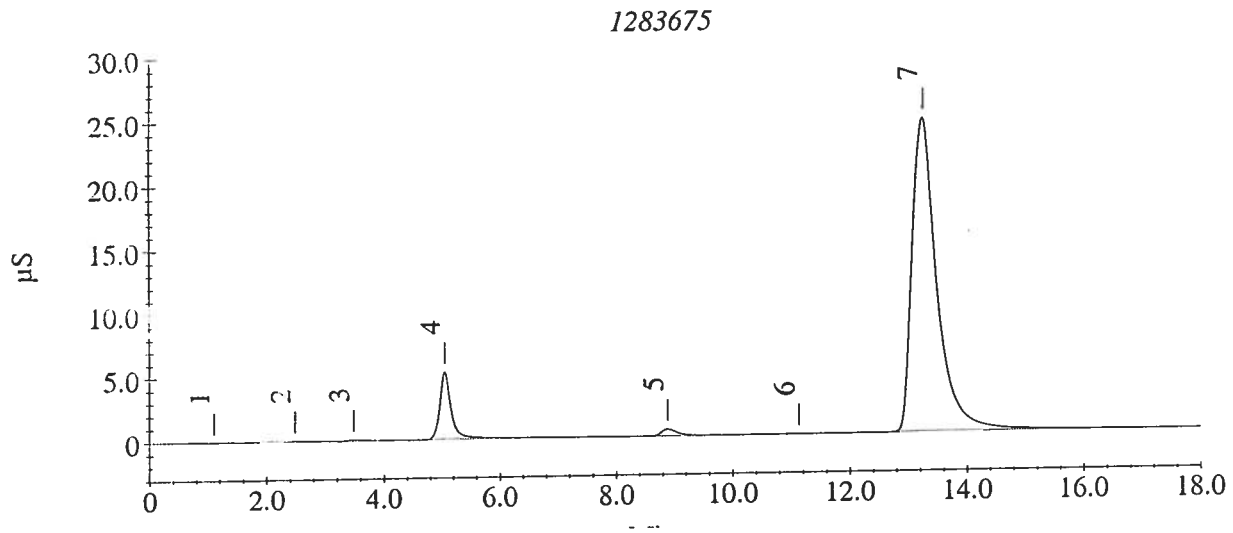
Sample Analysis Report

Sample Name : 1283675
Data File Name : c:\instarch\data\system 2\012623 -\1283675_005.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 14:01
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.48	0.2458	16049	919	
4	Chloride	5.05	3.3900	719898	52735	
5	Nitrate	8.88	0.3083	98064	5207	
6	O.Phos	11.13	-0.0238	2082	74	
7	Sulfate	13.23	42.9784	7255395	246263	



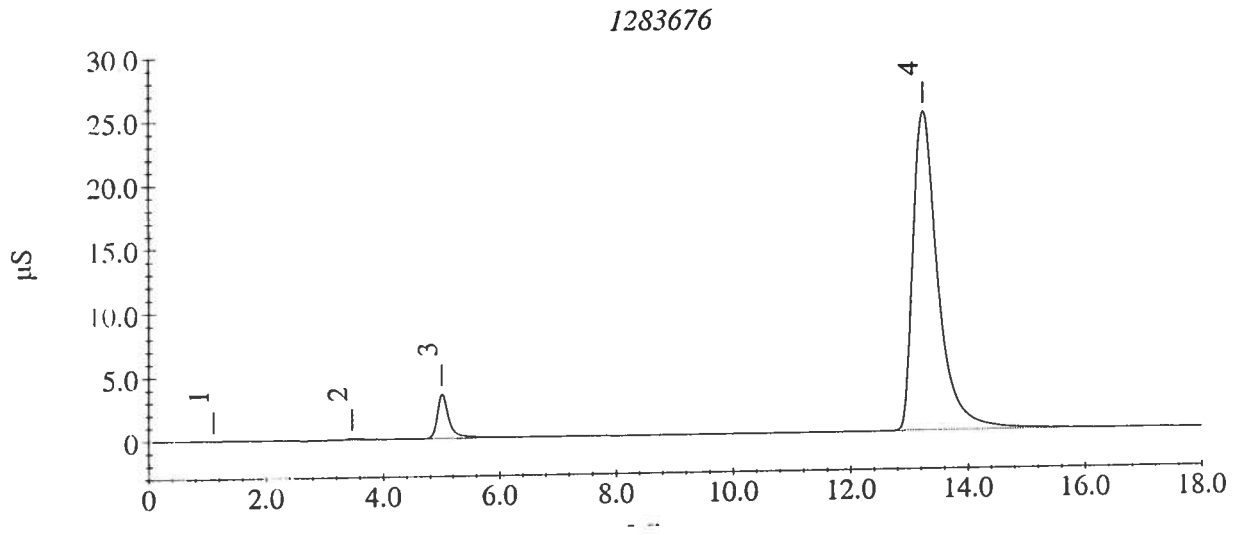
Sample Analysis Report

Sample Name : 1283676
Data File Name : c:\instarch\data\system 2\012623 -\1283676_006.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 14:21
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.2267	13308	791	
3	Chloride	5.00	2.5382	502492	34883	
4	Sulfate	13.23	44.1336	7455487	250010	



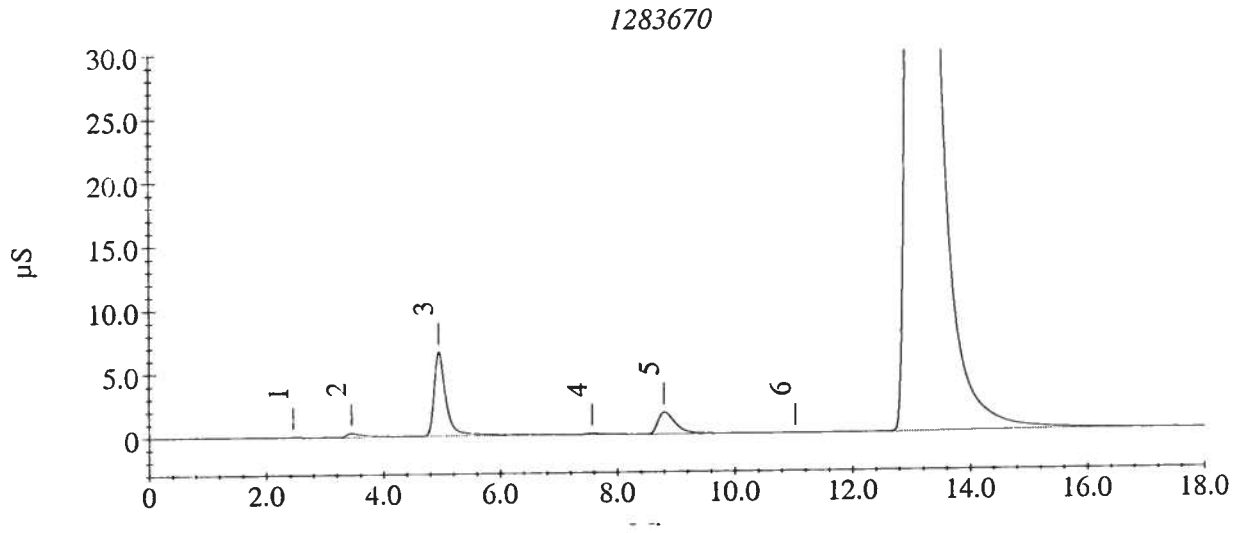
Sample Analysis Report

Sample Name : 1283670
Data File Name : c:\instarch\data\system 2\012623 -\1283670_007.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 14:41
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.45	0.5663	62022	3141	
3	Chloride	4.95	4.3029	952927	65776	
4	Bromide	7.57	0.1757	13457	786	
5	Nitrate	8.80	0.7855	352439	17078	
6	O.Phos	11.03	-0.0244	2005	87	
7	Sulfate	13.15	180.9802	31159163	1002453	+



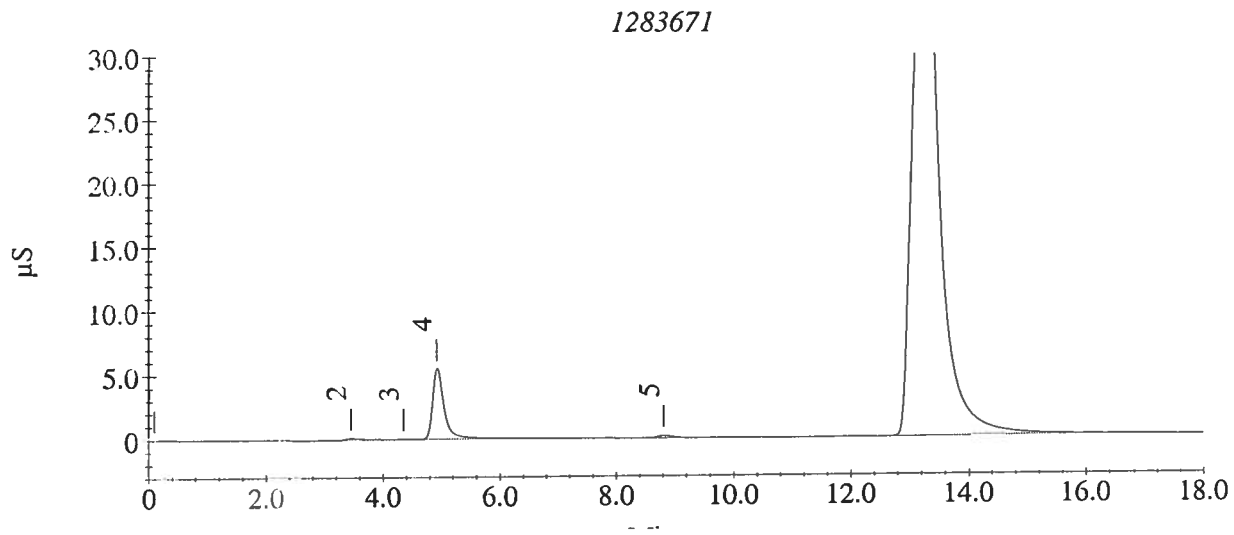
Sample Analysis Report

Sample Name : 1283671
Data File Name : c:\instarch\data\system 2\012623 -\1283671_008.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 15:01
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.45	0.2376	14868	922	
4	Chloride	4.92	3.5145	751681	54475	
5	Nitrate	8.82	0.1867	33203	1809	
6	Sulfate	13.22	78.9210	13481134	451593	+



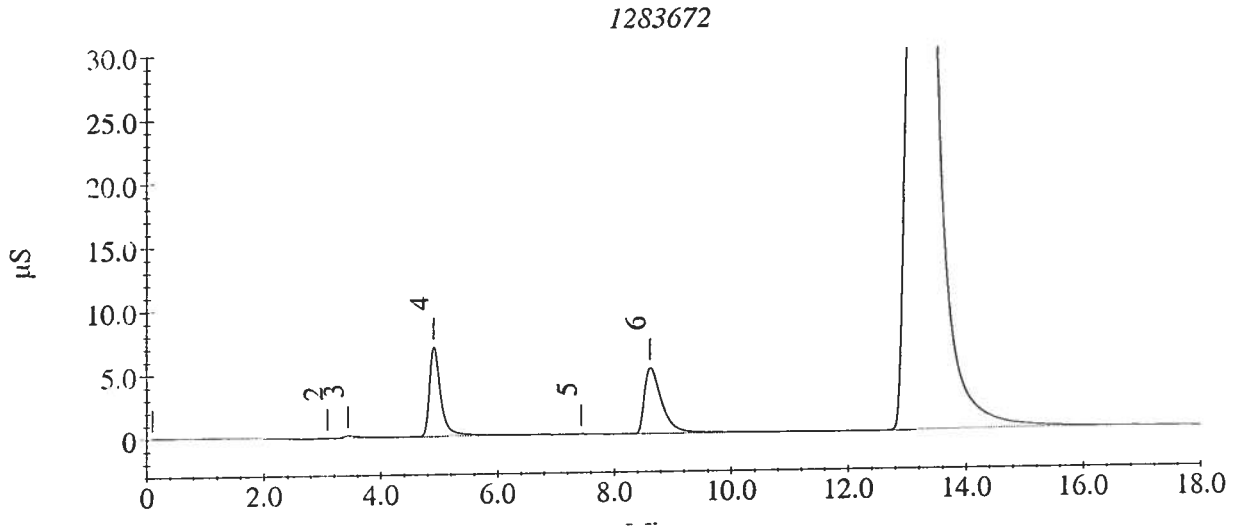
Sample Analysis Report

Sample Name : 1283672
Data File Name : c:\instarch\data\system 2\012623 -\1283672_009.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 15:22
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.43	0.3873	36344	1696	
4	Chloride	4.90	4.2797	946985	69719	
5	Bromide	7.43	0.0346	1885	121	
6	Nitrate	8.62	2.1134	1060421	51405	
7	Sulfate	13.20	130.9999	22501901	743669	+



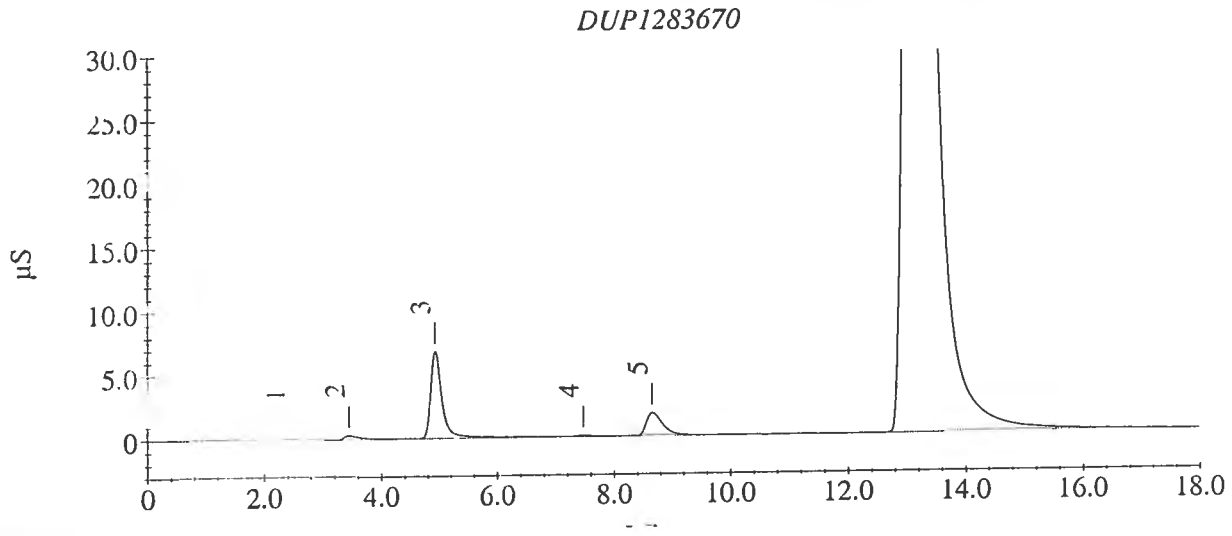
Sample Analysis Report

Sample Name : DUP1283670
Data File Name : c:\[illegible]\012623 -\DUP1283670_010.DXD

Method File Name : c:\[illegible]methods\system 2\ic4429.met
Date Time Collected : 1/26/23 15:42
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.45	0.6044	67489	3223	
3	Chloride	4.92	4.2297	934237	67574	
4	Bromide	7.47	0.1789	13724	830	
5	Nitrate	8.65	0.7866	353055	17904	
6	Sulfate	13.17	186.0059	32029674	1032052	+



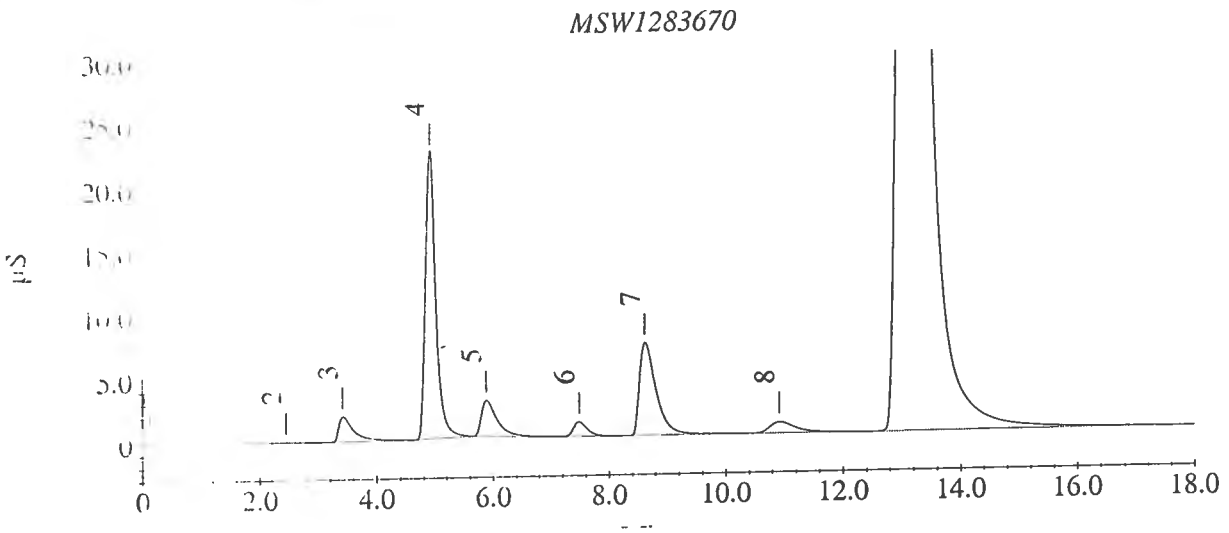
Sample Analysis Report

Sample Name : MSW1283670
Data File Name : c:\instarch\data\system 2\012623 -\MSW1283670_011.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 16:02
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.42	2.7376	373480	19681	
4	Chloride	4.92	11.6456	2827075	224719	
5	Nitrite	5.88	1.8725	524547	27974	
6	Bromide	7.48	2.3192	189276	11324	
7	Nitrate	8.62	2.8640	1460558	72815	
8	O Phos	10.92	2.1673	278501	8797	
9	Sulfate	13.15	183.2327	31549318	1019694	+



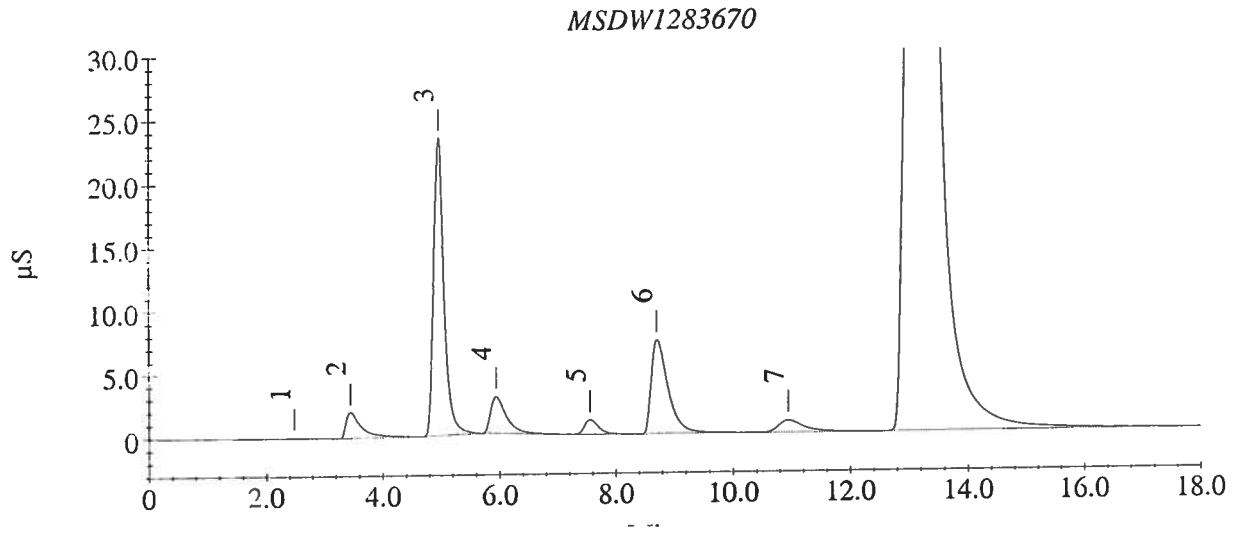
Sample Analysis Report

Sample Name : MSDW1283670
Data File Name : c:\instarch\data\system 2\012623 -\MSDW1283670_012.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 16:22
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.43	2.8069	383419	19983	
3	Chloride	4.95	11.8780	2886390	232201	
4	Nitrite	5.93	1.9307	541680	28572	
5	Bromide	7.55	2.3450	191394	11357	
6	Nitrate	8.70	2.8983	1478874	73110	
7	O.Phos	10.93	2.3474	301218	9438	
8	Sulfate	13.15	181.0711	31174906	1008123	+



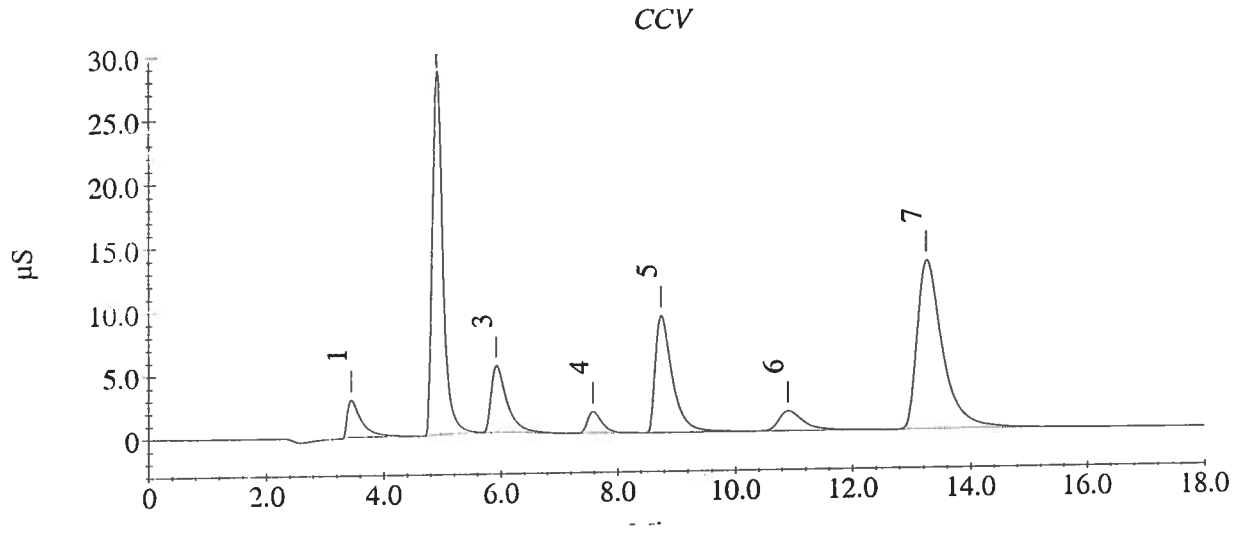
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012623 -\CCV_013.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 16:42
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	3.6983	511283	29423	
2	Chloride	4.90	14.4987	3555309	281606	
3	Nitrite	5.92	3.5322	1013442	52771	
4	Bromide	7.58	3.6596	299212	17271	
5	Nitrate	8.75	3.6658	1888073	92513	
6	O.Phos	10.90	3.6945	471170	15778	
7	Sulfate	13.25	24.3997	4037311	133208	



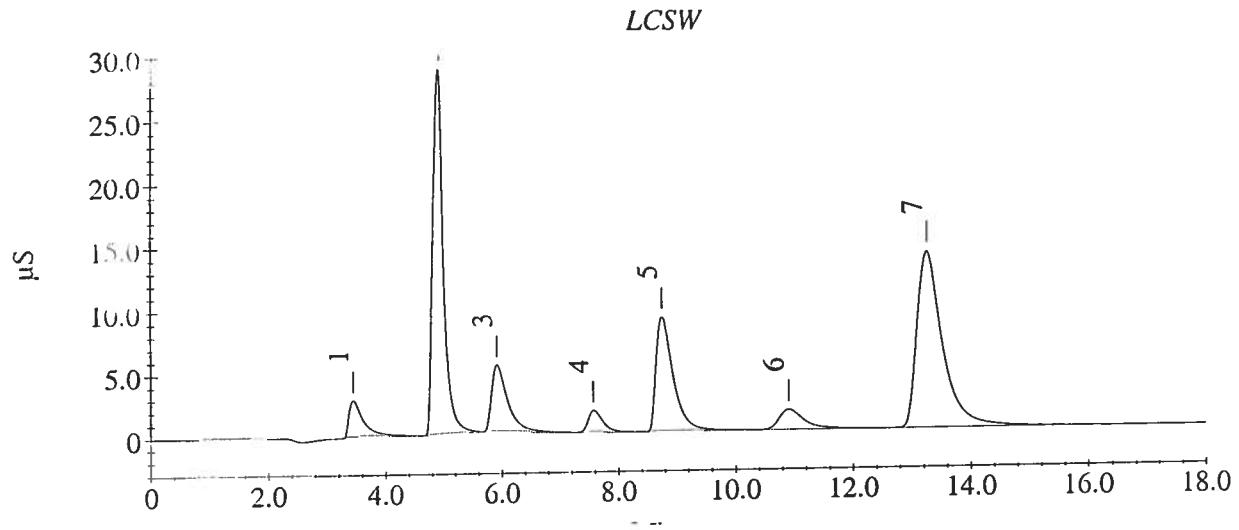
Sample Analysis Report

Sample Name : LCSW
Data File Name : c:\instarch\data\system 2\012623 -\LCSW_014.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 17:03
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	3.6455	503708	28374	
2	Chloride	4.90	14.7453	3618267	288119	
3	Nitrite	5.92	3.5350	1014267	52609	
4	Bromide	7.57	3.6417	297745	17081	
5	Nitrate	8.75	3.6000	1852982	90195	
6	O.Phos	10.90	3.6883	470378	15700	
7	Sulfate	13.25	25.3465	4201297	138510	



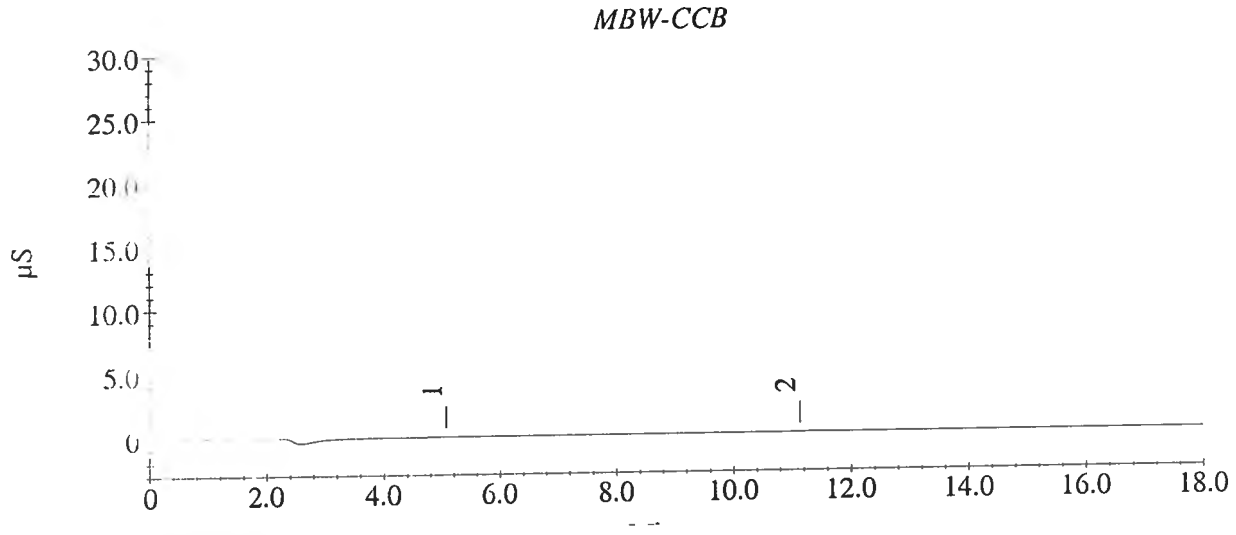
Sample Analysis Report

Sample Name : MBW-CCB
Data File Name : c:\instarch\data\system 2\012623 -\MBW-CCB_015.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 17:23
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	5.08	0.5755	1535	103	



Sample Analysis Report

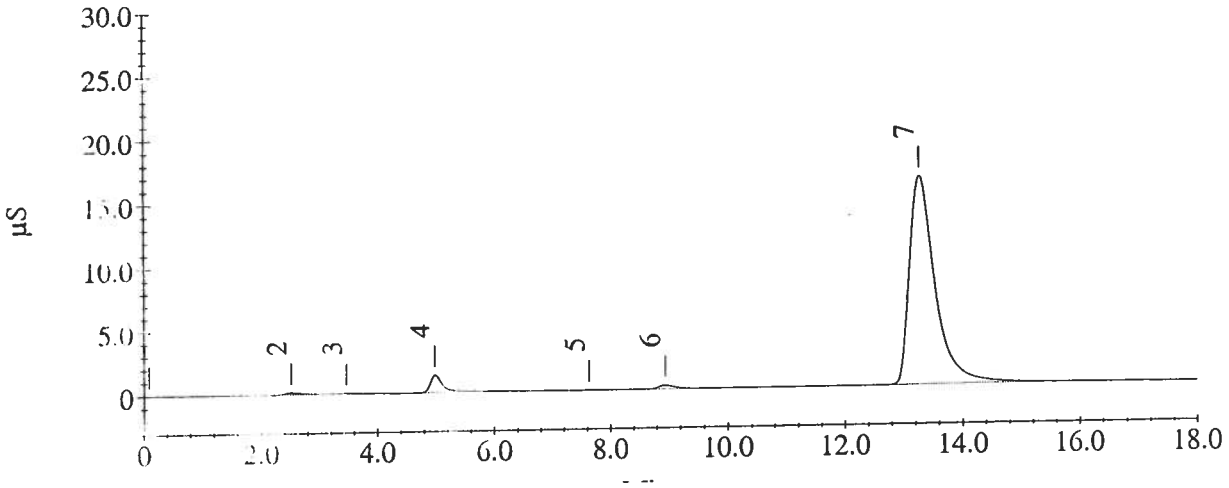
Sample Name : 1283670X5
Data File Name : c:\instarch\data\system 2\012623 -\1283670X5_016.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 17:43
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.47	0.2029	9893	577	
4	Chloride	4.98	1.3308	194310	13410	
5	Bromide	7.63	0.0376	2137	147	
6	Nitrate	8.93	0.2223	52185	2786	
7	Sulfate	13.27	29.4553	4913003	163347	

1283670X5



Sample Analysis Report

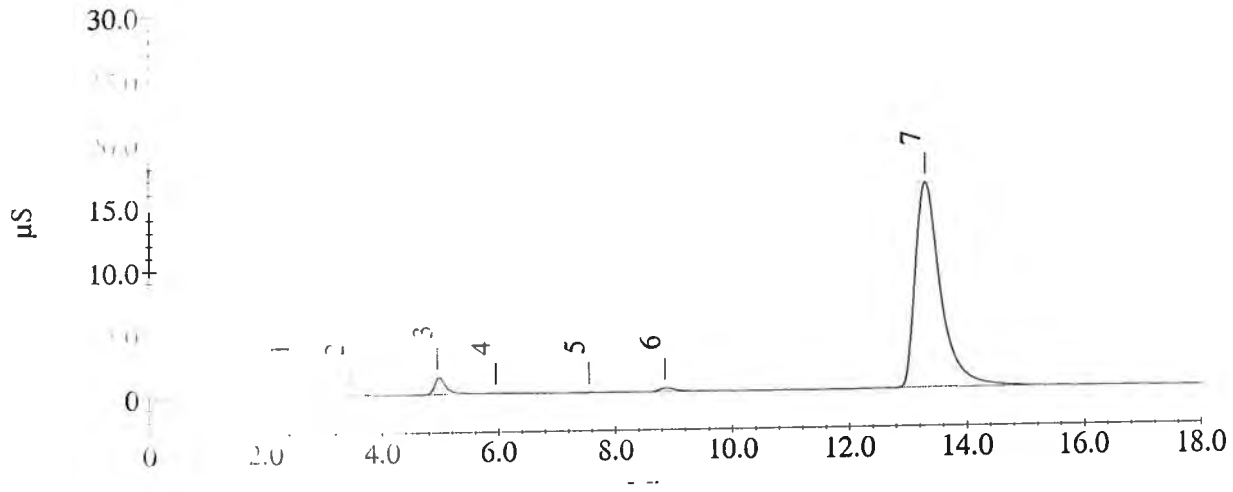
Sample Name : DUP1283670X5
Data File Name : c:\instarch\data\system 2\012623 -\DUP1283670X5_017.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 18:03
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.43	0.2054	10249	531	
3	Chloride	4.95	1.3282	193654	13127	
4	Nitrite	5.95	0.1010	2705	133	
5	Bromide	7.55	0.0430	2573	150	
6	Nitrate	8.85	0.2211	51531	2799	
7	Sulfate	13.28	29.0384	4840788	162063	

DUP1283670X5



Sample Analysis Report

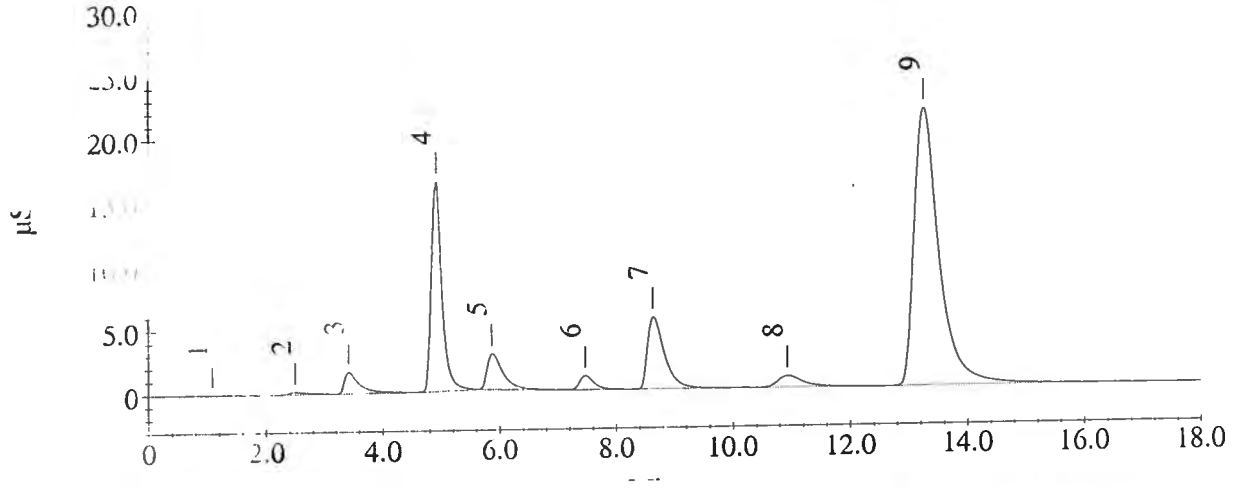
Sample Name : MSW1283670X5
Data File Name : c:\...starch\data\system 2\012623 -\MSW1283670X5_018.DXD

Method File Name : c:\...starch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 18:23
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.42	2.2725	306763	16480	
4	Chloride	4.92	8.5630	2040265	164125	
5	Nitrite	5.87	1.8895	529529	27912	
6	Bromide	7.47	2.2352	182381	10695	
7	Nitrate	8.63	2.2458	1130978	56075	
8	O-Phos	10.93	2.1230	272913	8894	
9	Sulfate	13.27	38.4544	6471768	217796	

MSW1283670X5



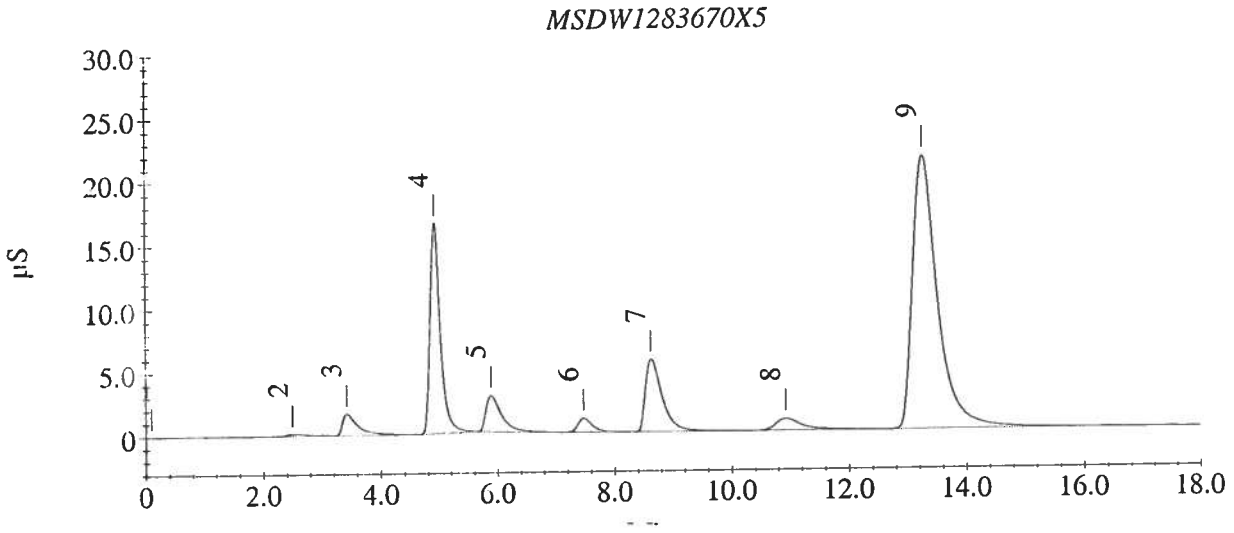
Sample Analysis Report

Sample Name : MSDW1283670X5
Data File Name : c:\instarch\data\system 2\012623 -\MSDW1283670X5_019.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 18:44
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.42	2.3115	312359	16661	
4	Chloride	4.92	8.5686	2041700	165060	
5	Nitrite	5.88	1.8798	526694	28189	
6	Bromide	7.47	2.2356	182418	10761	
7	Nitrate	8.62	2.2484	1132380	56681	
8	O.Phos	10.92	2.2282	286184	9109	
9	Sulfate	13.25	37.9136	6378088	215271	



Sample Analysis Report

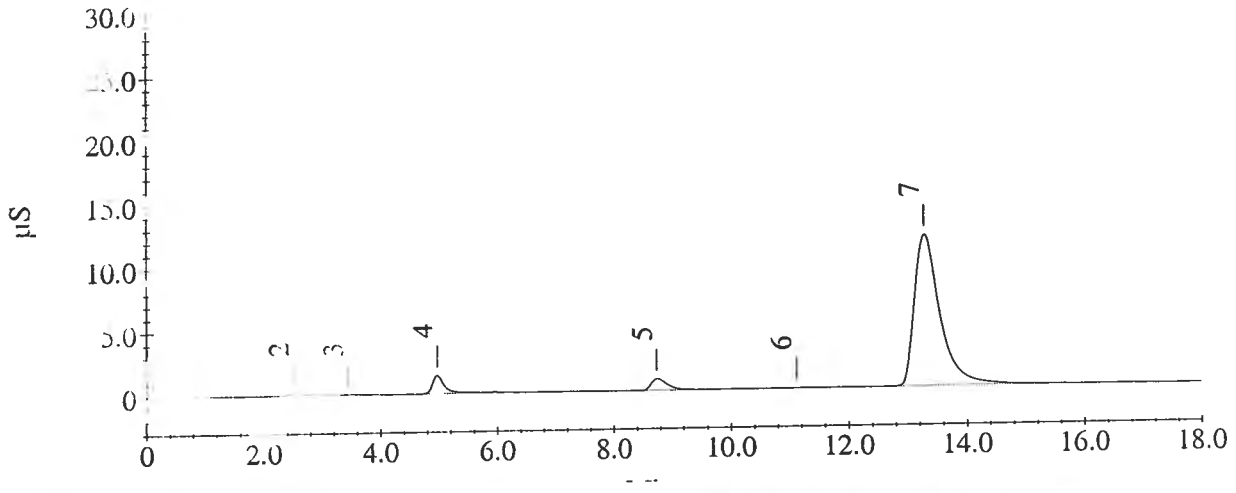
Sample Name : 1283672X5
Data File Name : c:\instarch\data\system 2\012623 -\1283672X5_020.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 19:04
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.43	0.1702	5205	312	
4	Chloride	4.97	1.3616	202184	14368	
5	Nitrate	8.73	0.4452	171046	8981	
6	O Phos	11.10	-0.0310	1179	63	
7	Sulfate	13.27	21.5437	3542604	118181	

1283672X5



Sample Analysis Report

Not used

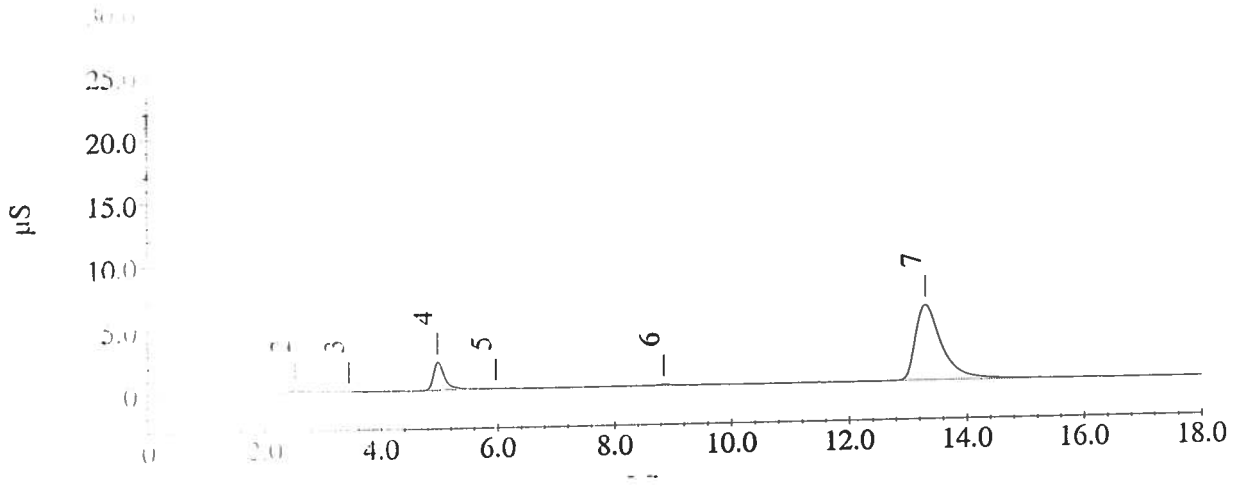
Sample Name : 1283674X5
Data File Name : c:\instarch\data\system 2\012623 -\1283674X5_021.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 19:24
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.45	0.1736	5683	360	
4	Chloride	4.97	1.7365	297870	21697	
5	Nitrite	5.97	0.0988	2057	142	
6	Nitrate	8.85	0.1509	14105	806	
7	Sulfate	13.30	11.7759	1850694	59068	

1283674X5



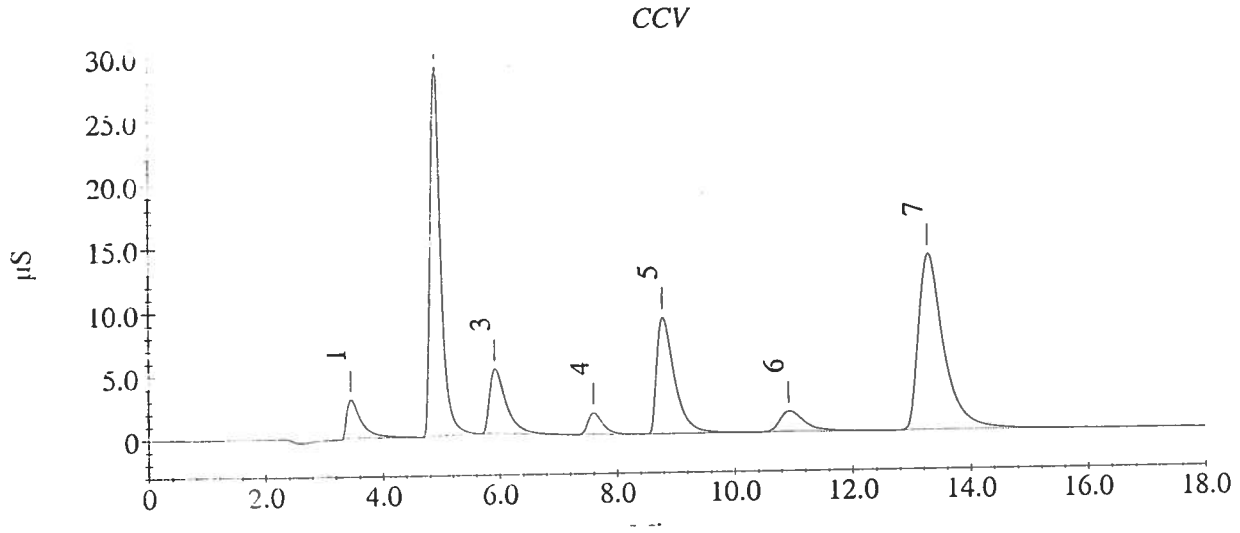
Sample Analysis Report

Sample Name : CCV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\012623 -\CCV_026.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/26/23 21:05
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	3.7755	522355	30378	
2	Chloride	4.90	15.0006	3683423	288528	
3	Nitrite	5.92	3.5558	1020371	50997	
4	Bromide	7.60	3.7062	303039	17093	
5	Nitrate	8.78	3.7244	1919269	91223	
6	O.Phos	10.92	3.8226	487321	16275	
7	Sulfate	13.28	25.0166	4144160	137795	



Sample Analysis Report

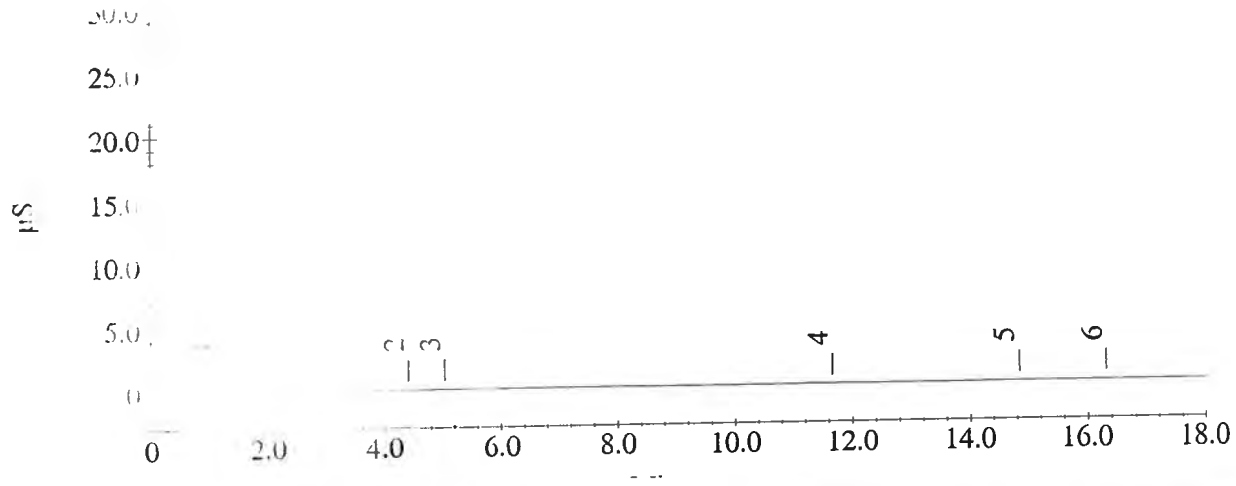
Sample Name : CCB
Data File Name : c:\instarch\data\system 2\012623 -\CCB_027.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/20/23 21:26
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	5.03	0.5838	3636	195	
4	O.Phos	11.67	-0.0001	5075	79	

CCB



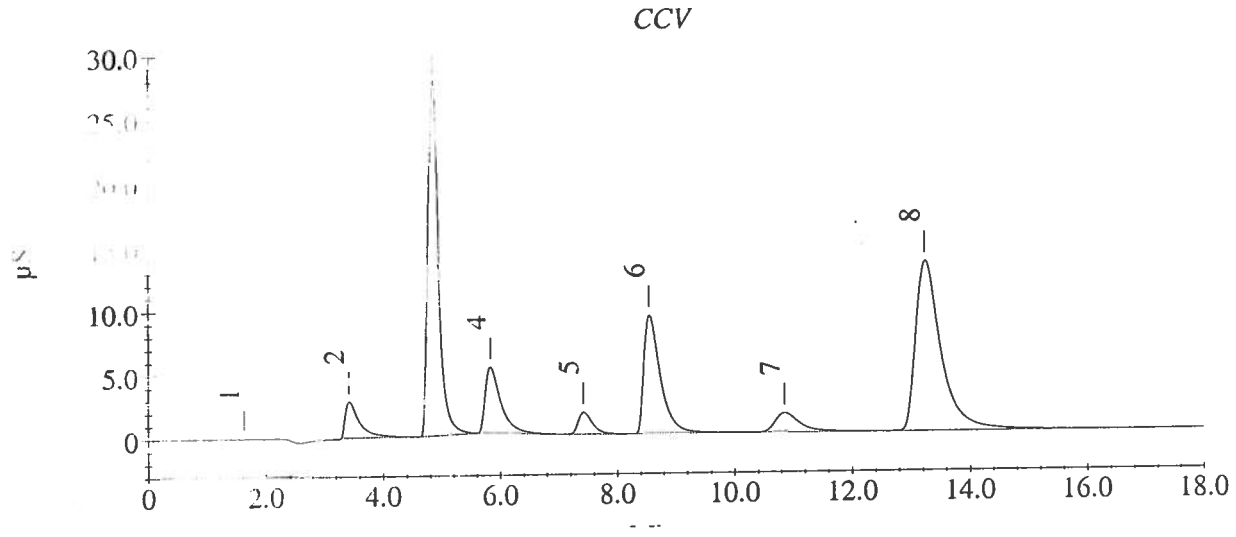
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012623 -\CCV_038.DXD

Method File [illegible]\methods\system 2\ic4429.met
Date Time Collected : [illegible]
System Operator : [illegible]

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.42	3.5027	483219	28219	
3	Chloride	4.83	14.1829	3474695	276235	
4	Nitrite	5.83	3.4019	975051	51959	
5	Bromide	7.42	3.5266	288305	17149	
6	Nitrate	8.55	3.5783	1841403	92752	
7	O-Phos	10.85	3.4723	443127	15021	
8	Sulfate	13.23	24.5123	4056802	132991	



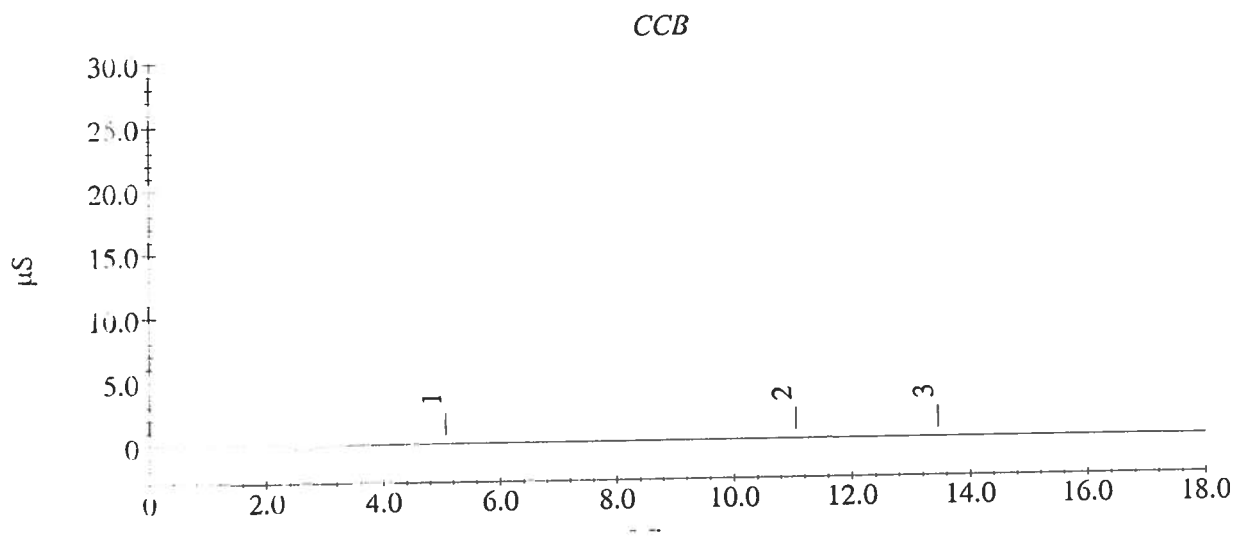
Sample Analysis Report

Sample Name : CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\012623 -\CCB_039.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 09:13
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	[illegible]	11.05	-0.0280	1553	66	



Sample Analysis Report

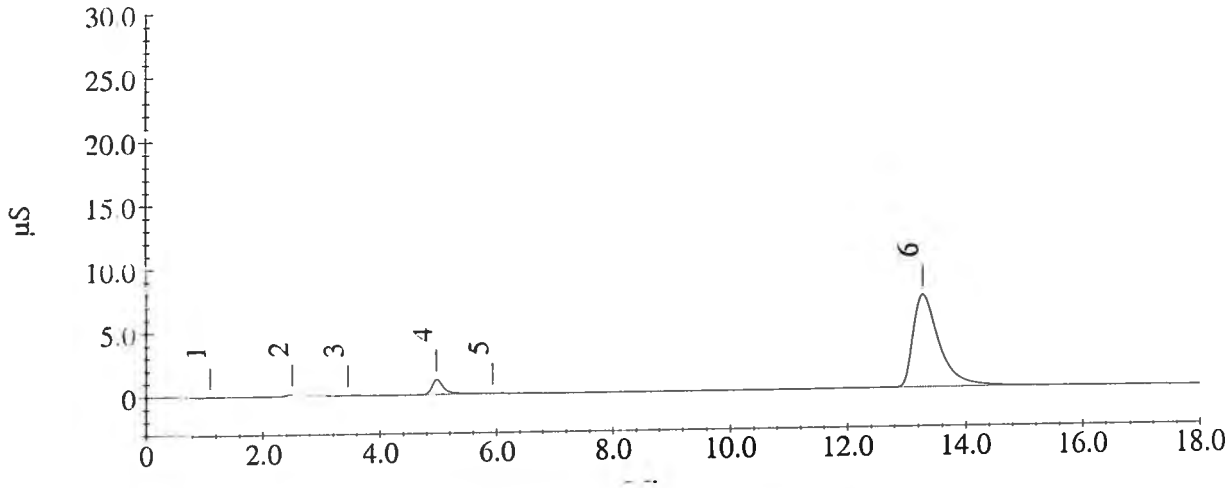
Sample Name : 1283671X5
Data File Name : c:\instarch\data\system 2\012623 -\1283671X5_040.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 09:33
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.45	0.1572	3340	213	
4	Chloride	4.97	1.2393	170954	11685	
5	Nitrite	5.93	0.0985	1964	132	
6	Sulfate	13.27	13.8954	2217828	71917	

1283671X5



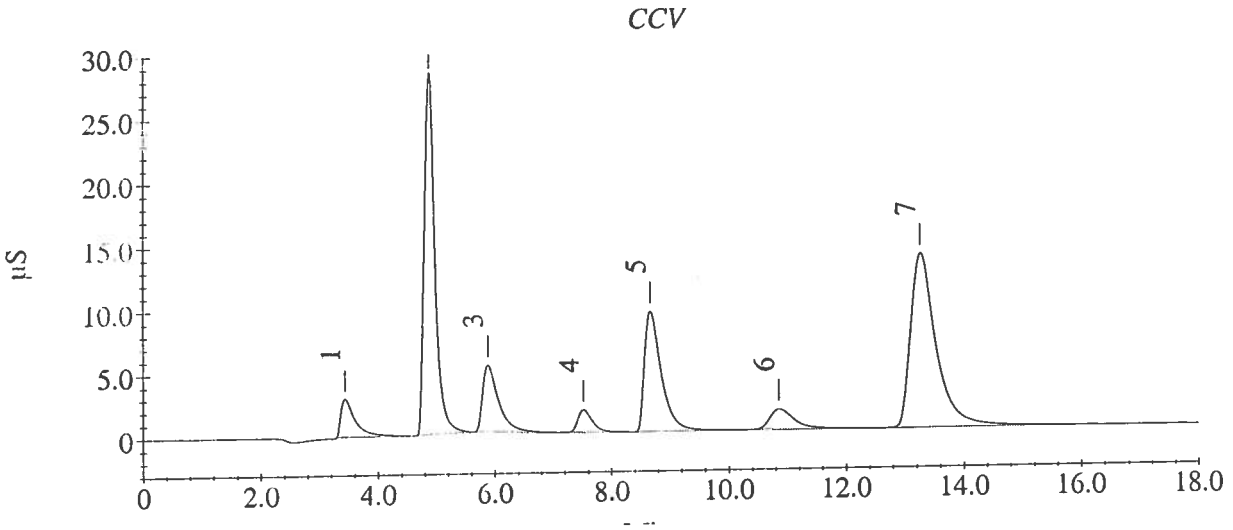
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012623 -\CCV_044.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 10:54
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.43	3.7042	512129	29676	
2	Chloride	4.87	14.6593	3596316	280922	
3	Nitrite	5.88	3.4855	999663	52618	
4	Bromide	7.52	3.6410	297690	17480	
5	Nitrate	8.67	3.6786	1894863	94502	
6	O.Phos	10.85	3.6327	463365	15813	
7	Sulfate	13.25	24.9906	4139664	136965	



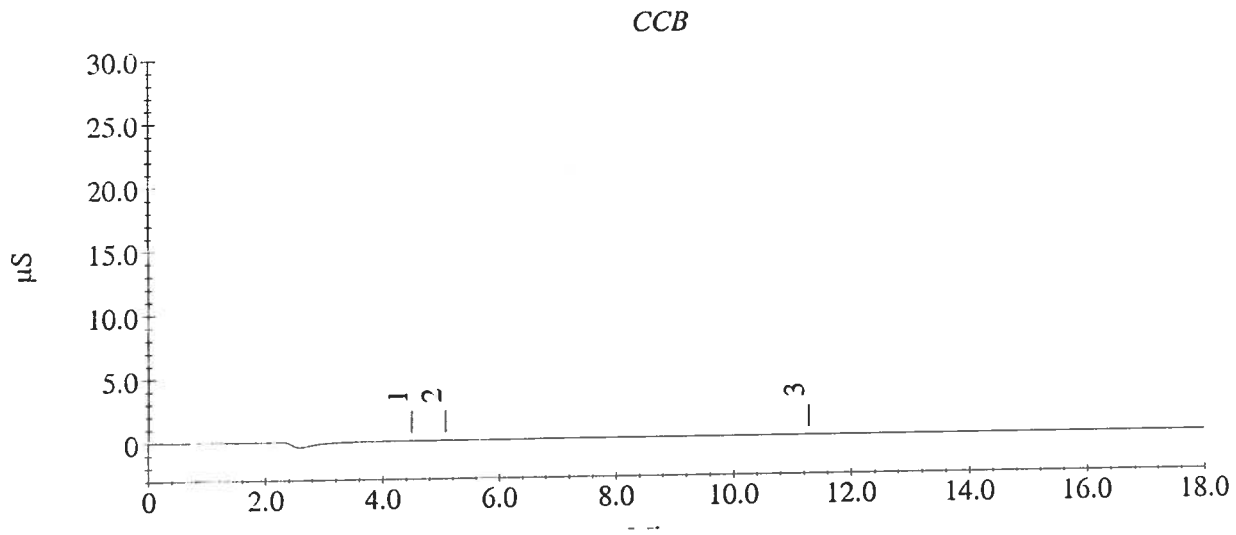
Sample Analysis Report

Sample Name : CCB
Data File Name : c:\instarch\data\system 2\012623 -\CCB_045.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 11:14
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	5.08	0.5751	1417	113	
3	O.Phos	11.28	-0.0277	1589	49	



Schedule File: C:\INSTARCH\Sequences\System 2\012723 -.sch

Line	Sample	Sample Type	Level	Method
1	CCV	Sample		ic4429.met
2	LCSW	Sample		ic4429.met
3	MBW-CCB	Sample		ic4429.met
4	1283979	Sample		ic4429.met
5	1283980	Sample		ic4429.met
6	1283980X5	Sample		ic4429.met
7	DUP1283979	Sample		ic4429.met
8	MSW1283979	Sample		ic4429.met
9	MSDW1283979	Sample		ic4429.met
14	CCV	Sample		ic4429.met
16	MBW-CCB	Sample		ic4429.met

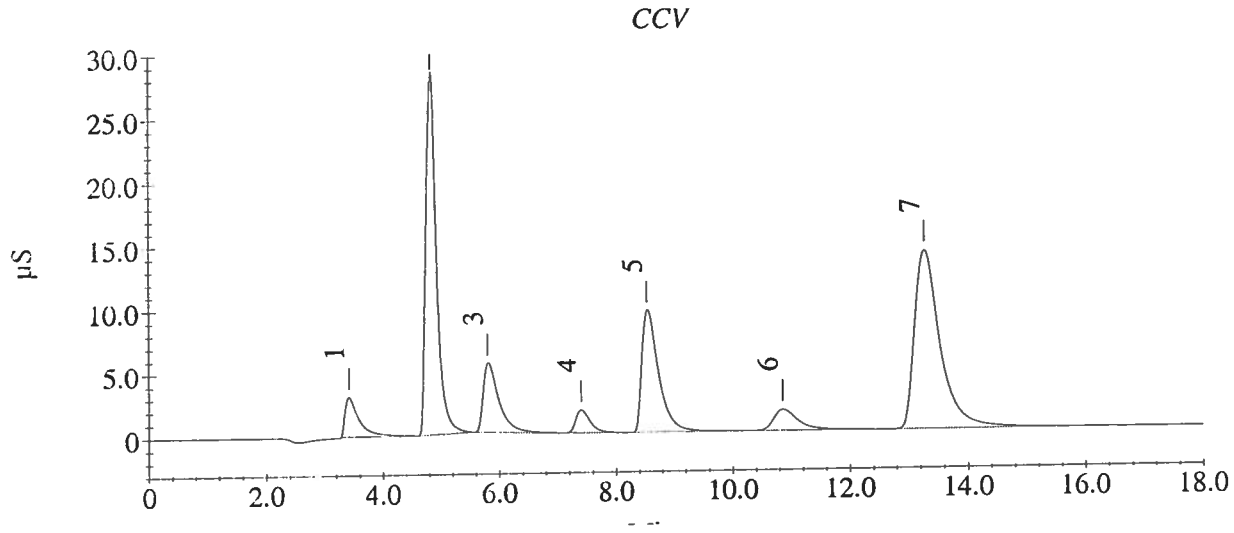
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012723 -\CCV_001.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 12:05
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.42	3.7578	519824	30716	
2	Chloride	4.82	14.5373	3565169	280178	
3	Nitrite	5.80	3.5307	1012995	53927	
4	Bromide	7.40	3.6637	299549	17714	
5	Nitrate	8.53	3.7404	1927805	95201	
6	O.Phos	10.85	3.7280	475386	16393	
7	Sulfate	13.27	25.4137	4212946	139870	



Sample Analysis Report

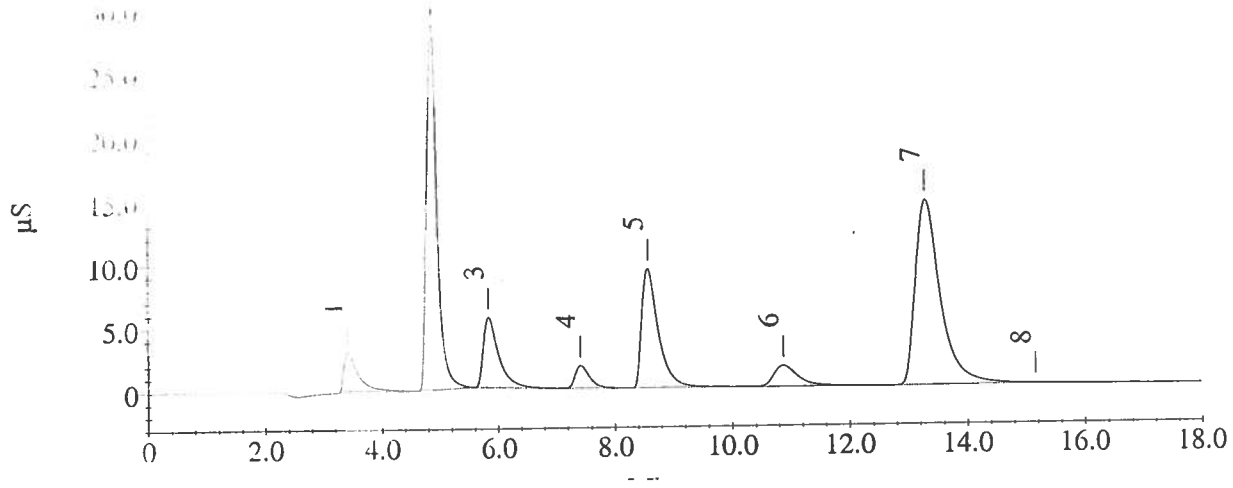
Sample Name : LCSW
Data File Name : c:\instarch\data\system 2\012723 -\LCSW_002.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 12:25
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.42	3.6968	511072	30177	
2	Chloride	4.83	14.6569	3595698	286390	
3	Nitrite	5.82	3.5522	1019310	54975	
4	Bromide	7.40	3.6859	301376	17788	
5	Nitrate	8.55	3.6421	1875435	93631	
6	O.Phos	10.87	3.7593	479340	16522	
7	Sulfate	13.27	25.9348	4303201	145229	

LCSW



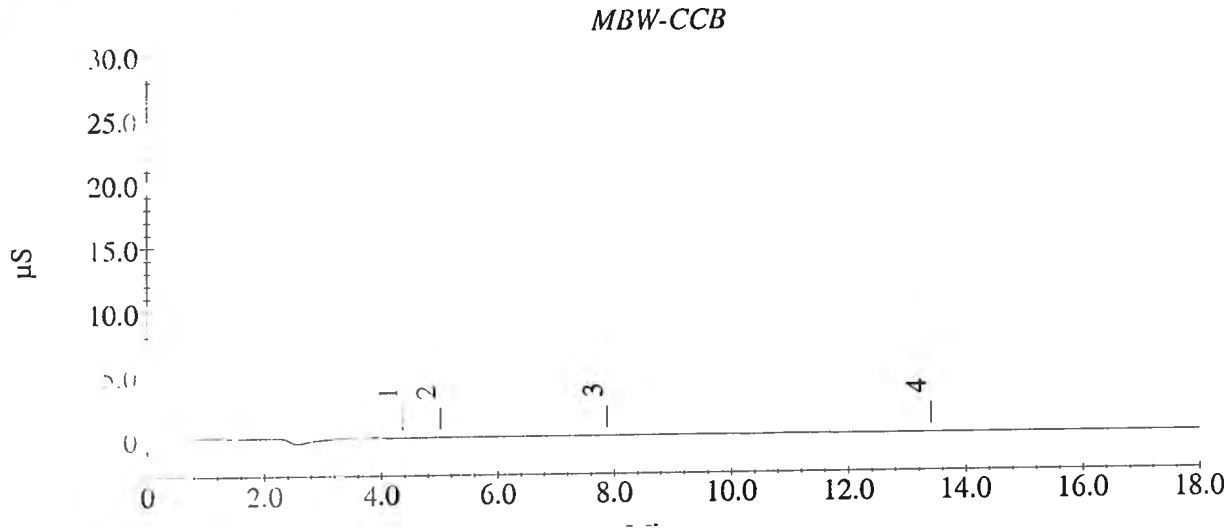
Sample Analysis Report

Sample Name : MBW-CCB
Data File Name : c:\instarch\data\system 2\012723 -\MBW-CCB_003.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/2[illegible] 12:45
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	5.02	0.5775	2044	170	



Sample Analysis Report

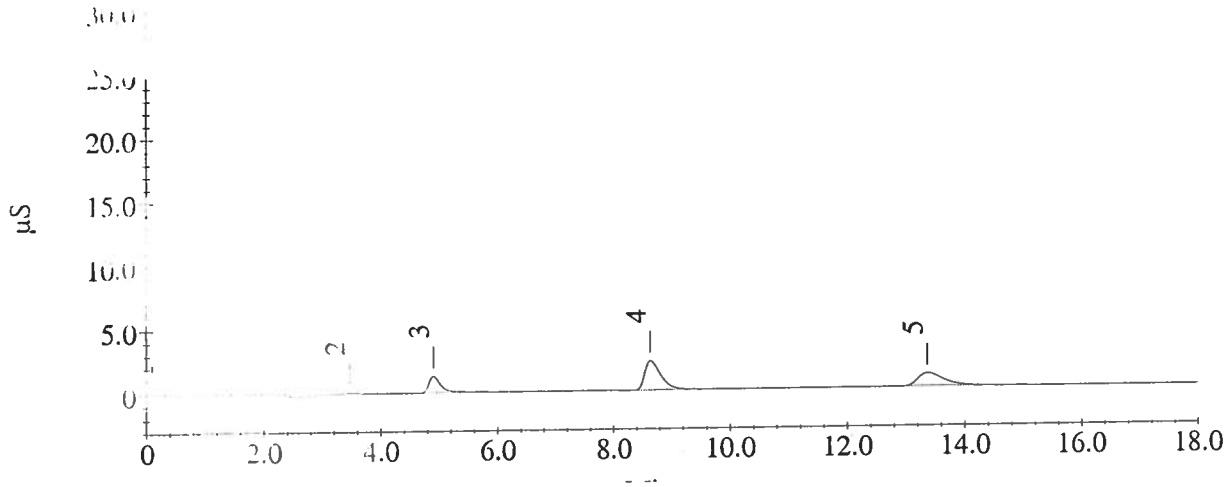
Sample Name : 1283979
Data File Name : c:\...\data\system 2\012723 -\1283979_004.DXD

Method File Name : c:\...\methods\system 2\ic4429.met
Date Time Collected : 1/23/23 13:05
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.1817	6844	449	
3	Chloride	4.90	1.2917	184320	12928	
4	Nitrate	8.63	0.9370	433227	22574	
5	Sulfate	13.37	2.9546	322726	10339	

1283979



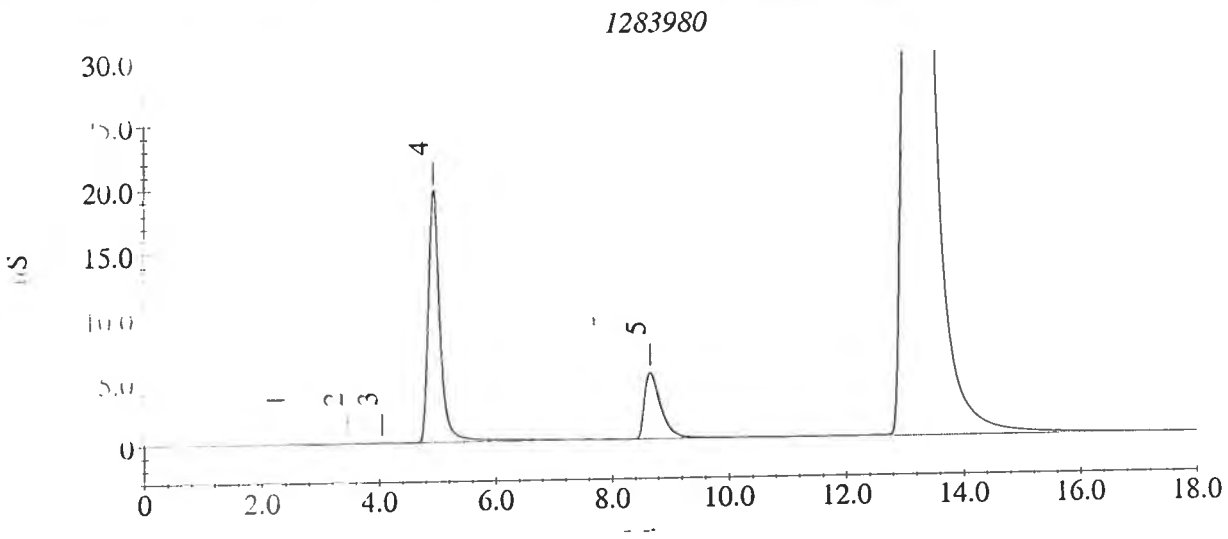
Sample Analysis Report

Sample Name : 1283980
Data File Name : c:\...\system 2\012723 -\1283980_005.DXD

Method File Name : ...\methods\system 2\ic4429.met
Date Time Collected : ...13:26
System Operator : TMC

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.1910	8191	473	
4	Chloride	4.95	11.3565	2753289	195020	
5	Nitrate	8.67	2.0140	1007437	51557	
6	Sulfate	13.20	144.7716	24887350	819612	+



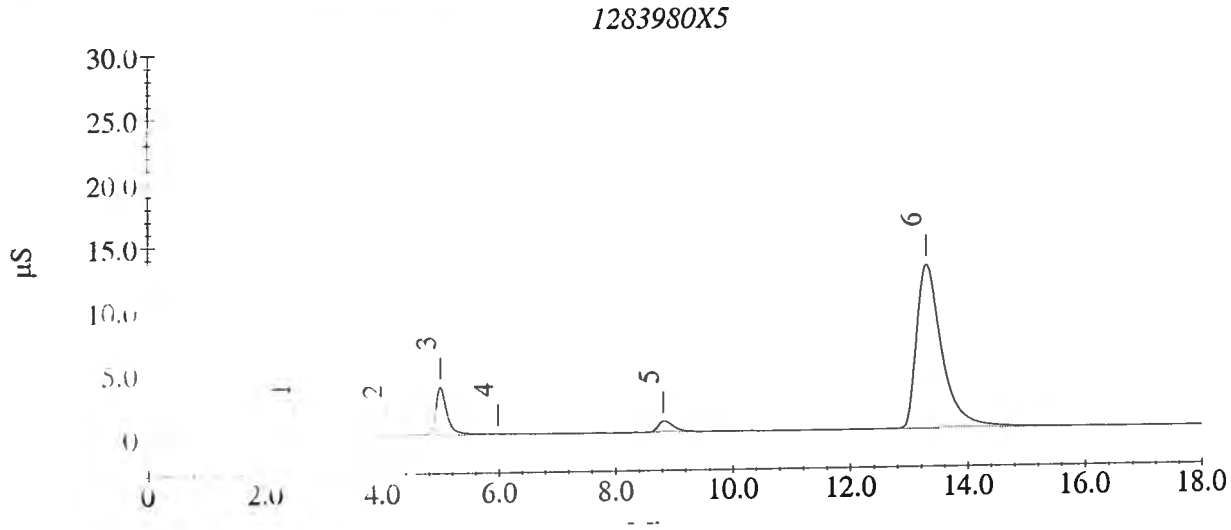
Sample Analysis Report

Sample Name : 1283980X5
Data File Name : c:\instarch\data\system 2\012723 -\1283980X5_006.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 13:46
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	5.00	2.5145	496446	38015	
4	Nitrite	5.98	0.0997	2313	127	
5	Nitrate	8.82	0.4344	165274	8768	
6	Sulfate	13.28	23.6047	3899599	129747	



Sample Analysis Report

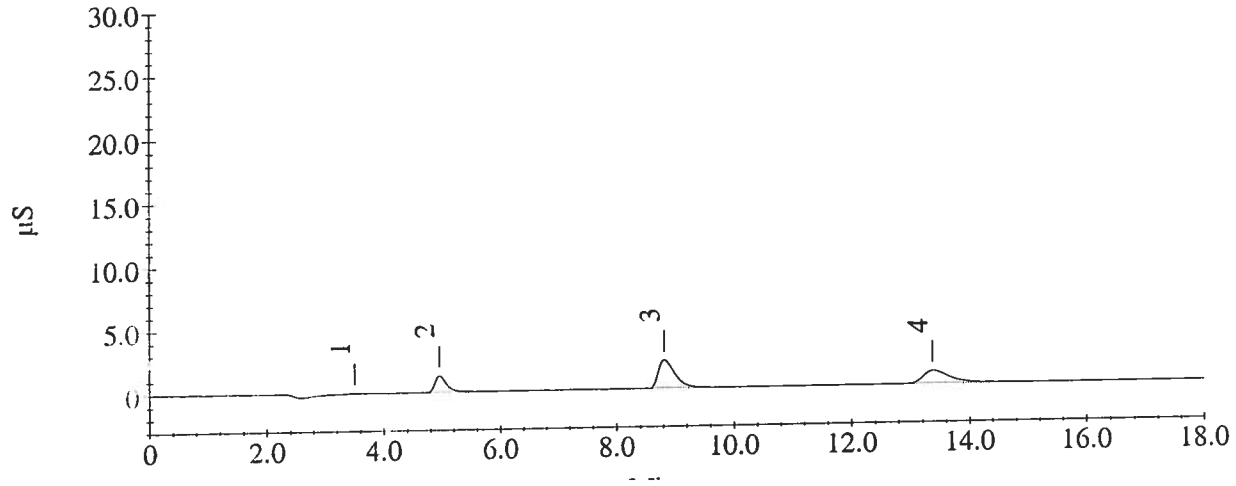
Sample Name : DUP1283979
Data File Name : c:\instarch\data\system 2\012723 -\DUP1283979_007.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 14:06
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.50	0.1754	5950	438	
2	Chloride	4.95	1.3118	189456	13141	
3	Nitrate	8.82	0.9422	435985	22192	
4	Sulfate	13.37	2.9555	322875	10157	

DUP1283979



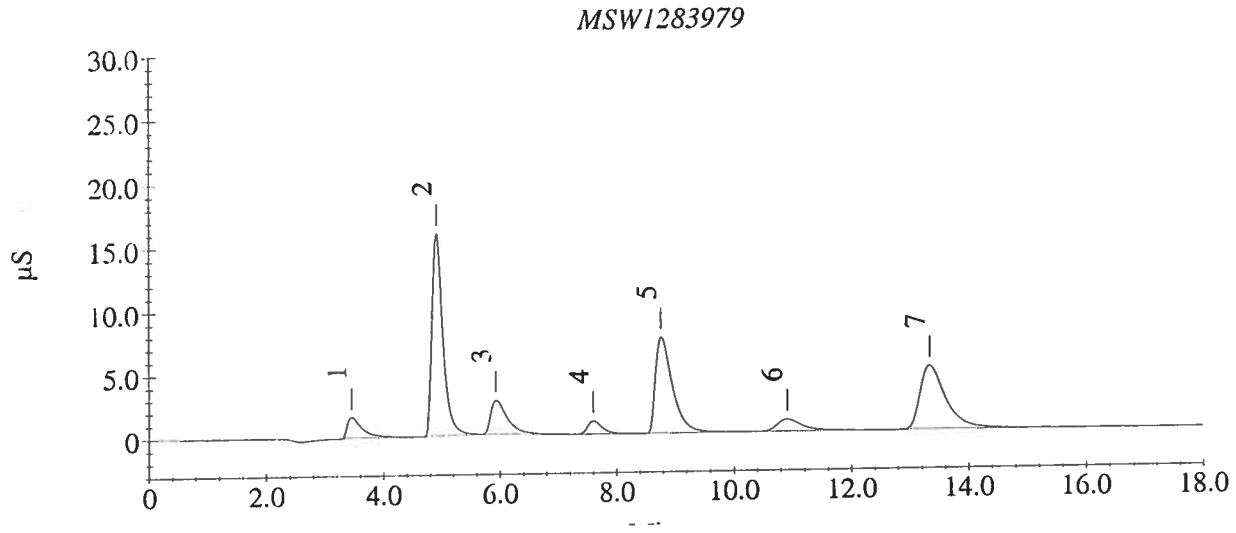
Sample Analysis Report

Sample Name : MSW1283979
Data File Name : c:\instarch\data\system 2\012723 -\MSW1283979_008.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 14:26
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	2.1814	293696	16168	
2	Chloride	4.92	8.6822	2070703	159344	
3	Nitrite	5.93	1.9244	539824	26963	
4	Bromide	7.60	2.2328	182185	10380	
5	Nitrate	8.77	3.0159	1541563	75966	
6	O.Phos	10.90	2.2431	288063	9517	
7	Sulfate	13.33	10.1427	1567804	50558	



Sample Analysis Report

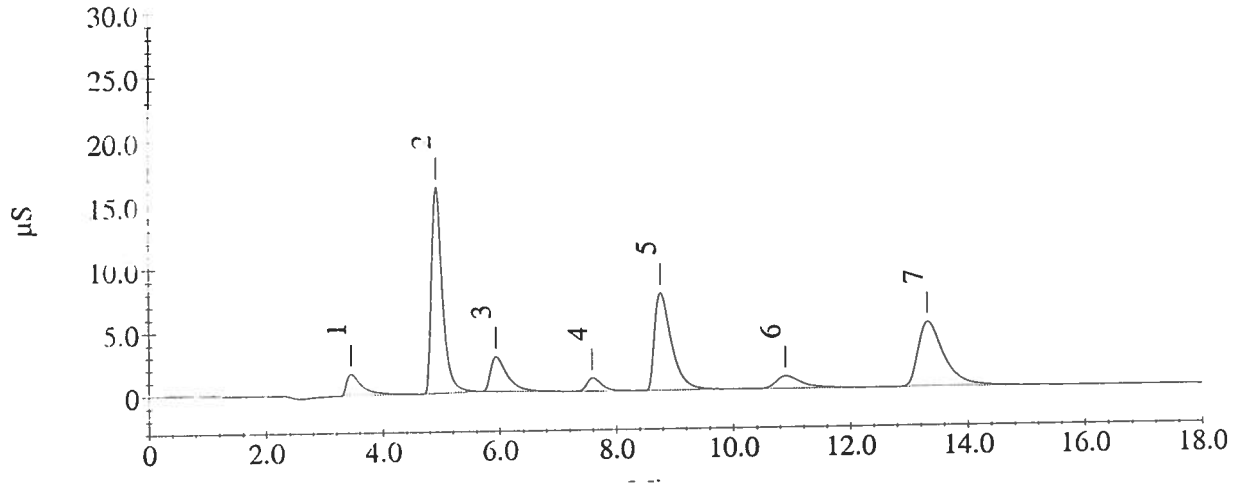
Sample Name : MSDW1283979
Data File Name : c:\...\system 2\012723 -\MSDW1283979_009.DXD

Method File Name : c:\...\system 2\ic4429.met
Date Time Collected : 1/27/23 14:46
System Operator : TM6

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	2.2375	301737	16387	
2	Chloride	4.92	8.8066	2102439	161950	
3	Nitrite	5.93	1.9518	547890	27496	
4	Bromide	7.58	2.2610	184501	10426	
5	Nitrate	8.77	3.0387	1553744	76941	
6	o-Phos	10.88	2.3850	305967	9829	
7	Sulfate	13.32	10.2348	1583752	51341	

MSDW1283979



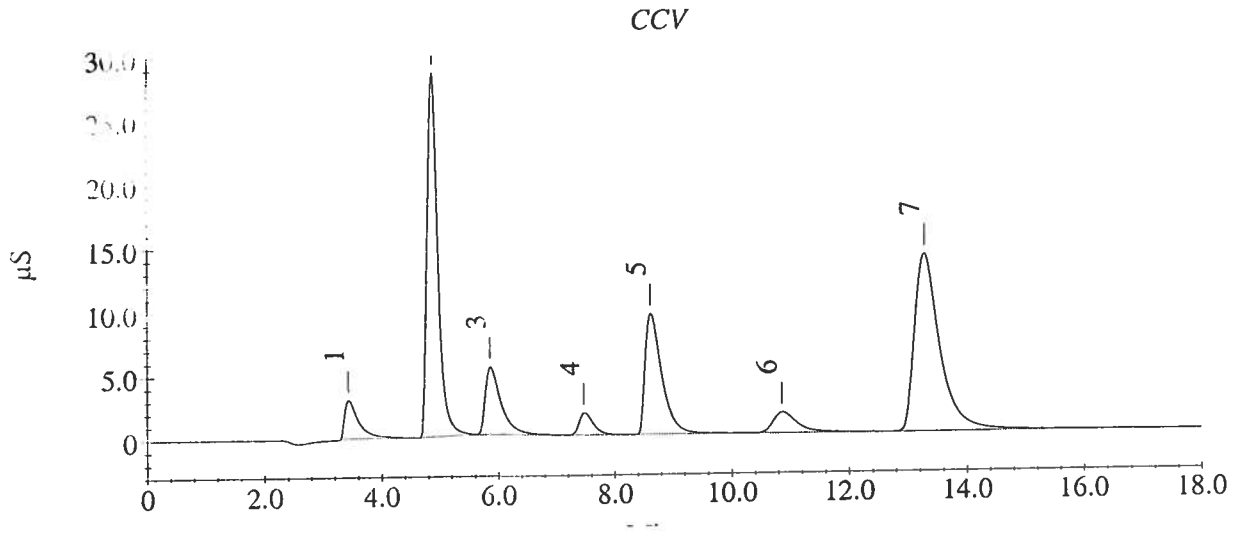
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012723 -\CCV_014.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 16:27
System Operator : EMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.43	3.7074	512590	30019	
2	Chloride	4.87	14.6797	3601523	284998	
3	Nitrite	5.87	3.4997	1003873	52983	
4	Bromide	7.47	3.6275	296585	17358	
5	Nitrate	8.62	3.6699	1890244	94456	
6	O.Phos	10.85	3.6776	469027	16187	
7	Sulfate	13.28	25.2021	4176290	139037	



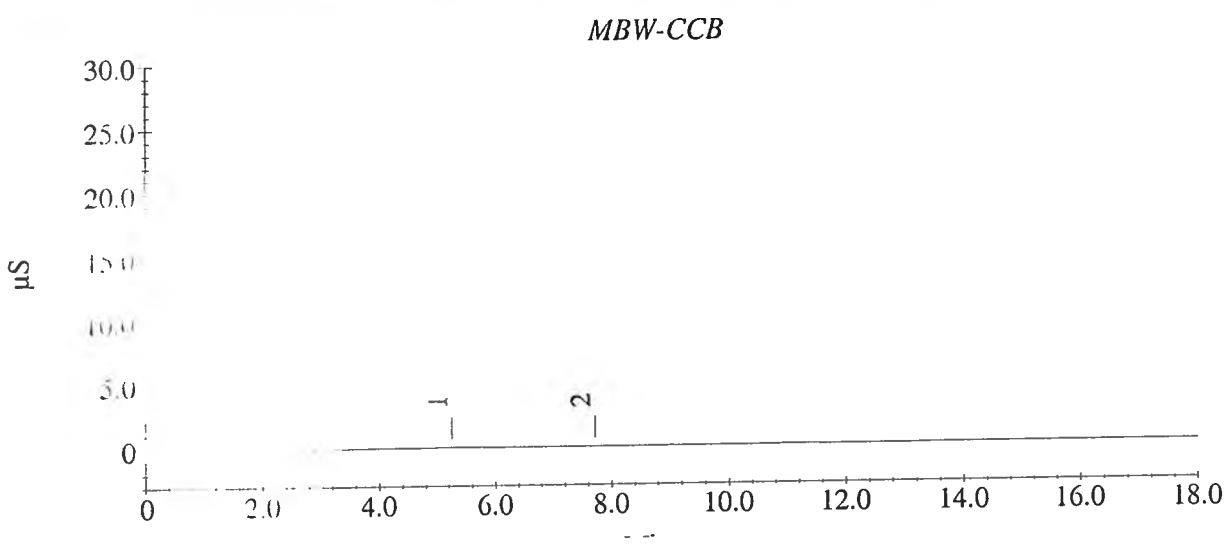
Sample Analysis Report

Sample Name : MBW-CCB
Data File Name : c:\instarch\data\system 2\012723 -\MBW-CCB_016.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/27/23 17:08
System Operator : MG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	5.25	0.5748	1352	66	
2	Bromide	7.72	0.0269	1252	48	



Schedule File: C:\INSTARCH\Sequences\System 2\012823 -.SCH

Line	Sample	Sample Type	Level	Method
1	CCV	Sample		ic4429.met
2	LCSW	Sample		ic4429.met
3	MBW	Sample		ic4429.met
4	1284317	Sample		ic4429.met
5	1284318	Sample		ic4429.met
6	1284319	Sample		ic4429.met
7	1284320	Sample		ic4429.met
8	1284321	Sample		ic4429.met
9	1284322	Sample		ic4429.met
10	1284323	Sample		ic4429.met
11	1284324	Sample		ic4429.met
12	1284317X5	Sample		ic4429.met
13	1284318X5	Sample		ic4429.met
14	CCV	Sample		ic4429.met
15	CCB	Sample		ic4429.met
16	1284319X5	Sample		ic4429.met
17	1284320X5	Sample		ic4429.met
18	1284321X5	Sample		ic4429.met
19	1284322X5	Sample		ic4429.met
20	1284323X5	Sample		ic4429.met
21	1284324X5	Sample		ic4429.met
22	DUP1284317	Sample		ic4429.met
23	MSW1284317	Sample		ic4429.met
24	MSDW1284317	Sample		ic4429.met
25	CCV	Sample		ic4429.met
26	CCB	Sample		ic4429.met

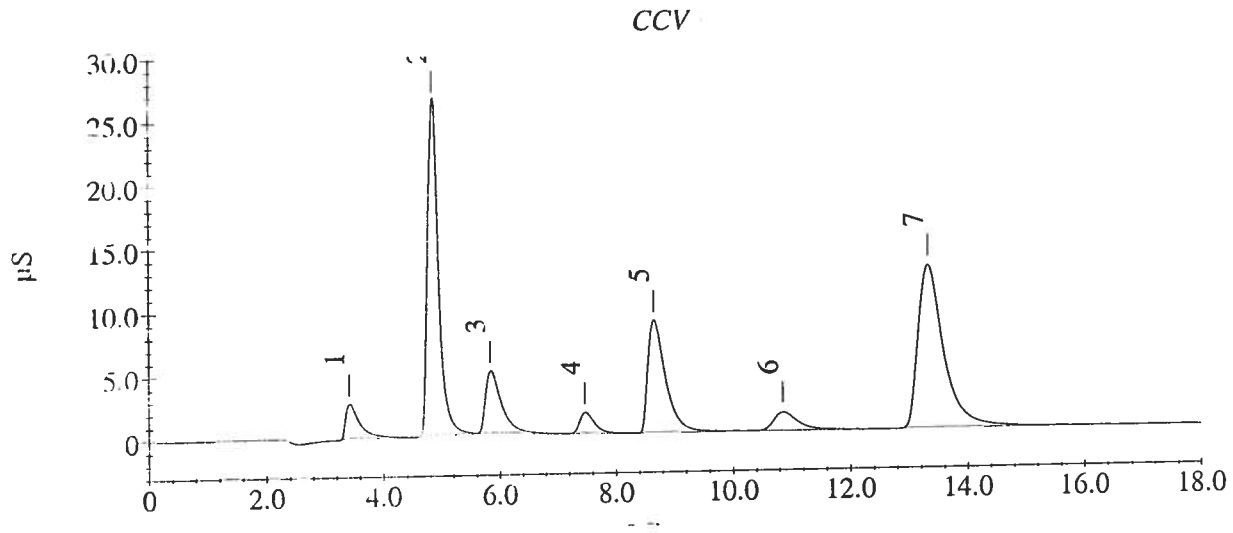
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012823 -\CCV_001.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 13:44
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.42	3.4086	469723	27047	
2	Chloride	4.83	14.1310	3461457	263590	
3	Nitrite	5.83	3.3370	955945	48819	
4	Bromide	7.47	3.5665	291578	16531	
5	Nitrate	8.65	3.6004	1853183	87991	
6	O.Phos	10.85	3.2384	413621	14204	
7	Sulfate	13.32	23.6130	3901038	127824	



Sample Analysis Report

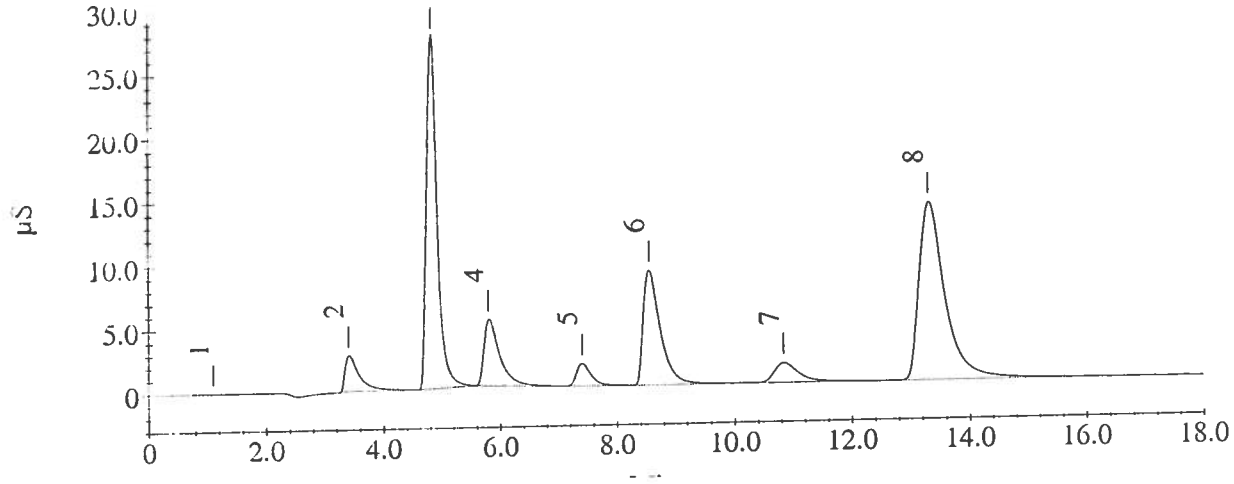
Sample Name : LCSW
Data File Name : c:\instarch\data\system 2\012823 -\LCSW_002.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 14:04
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.40	3.4831	480415	27846	
3	Chloride	4.82	14.3999	3530085	275507	
4	Nitrite	5.80	3.4084	976964	51854	
5	Bromide	7.40	3.6781	300733	17622	
6	Nitrate	8.55	3.5484	1825474	89895	
7	O.Phos	10.83	3.5546	453510	15508	
8	Sulfate	13.30	25.8121	4281960	139638	

LCSW



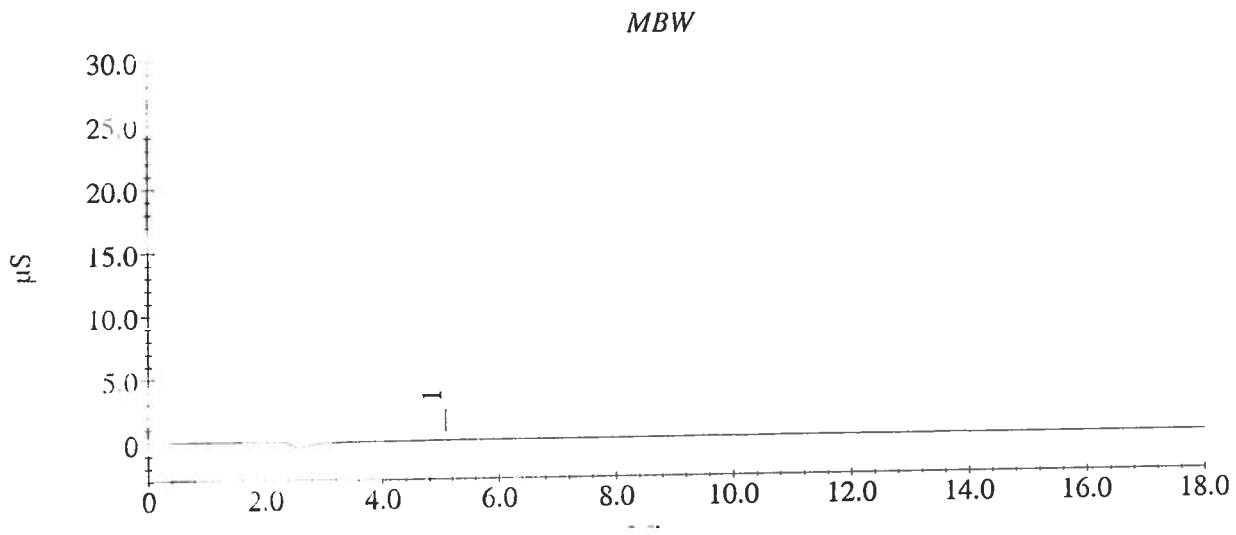
Sample Analysis Report

Sample Name : MBW
Data File Name : c:\instarch\data\system 2\012823 -\MBW_003.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 14:24
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded



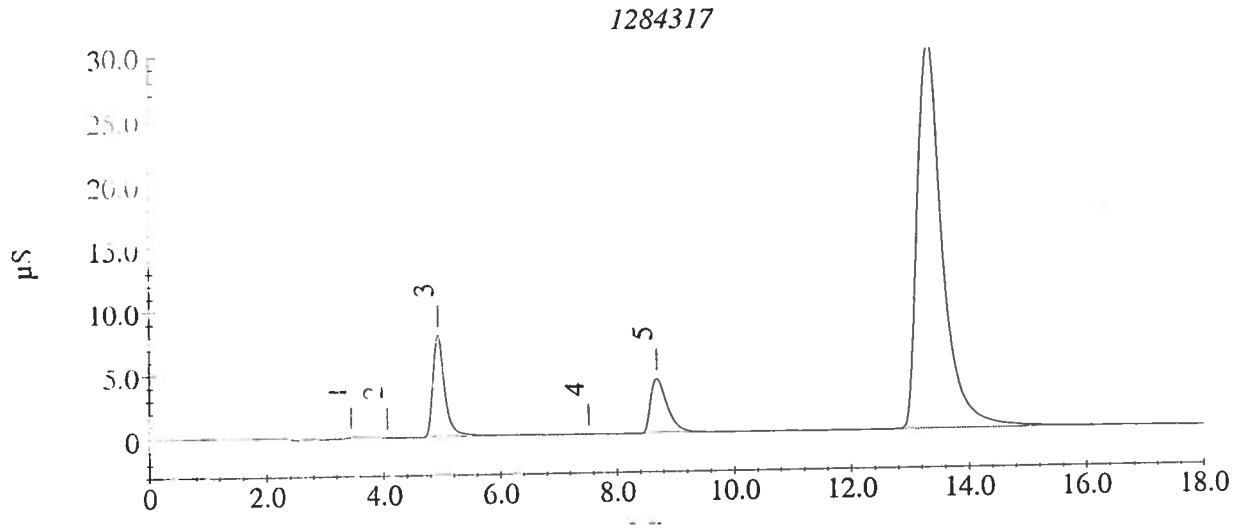
Sample Analysis Report

Sample Name : 1284317
Data File Name : c:\instarch\data\system 2\012823 -\1284317_004.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 14:44
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	0.1969	9028	630	
3	Chloride	4.93	4.9688	1122890	79494	
4	Bromide	7.52	0.0500	3148	199	
5	Nitrate	8.68	1.6892	834233	42510	
6	Sulfate	13.30	52.9841	8988517	304438	



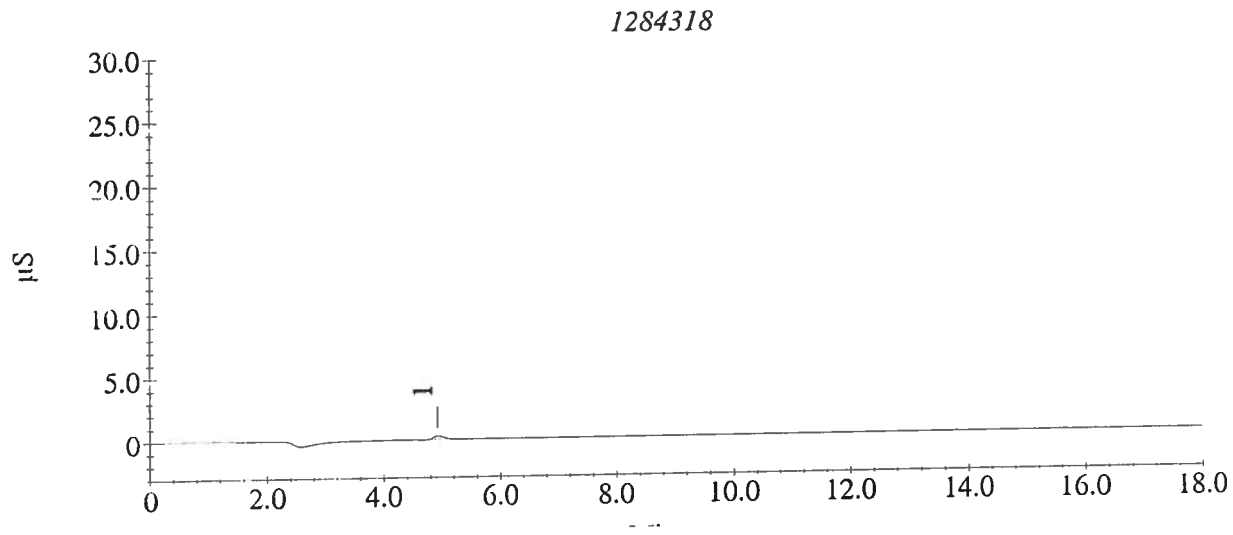
Sample Analysis Report

Sample Name : 1284318
Data File Name : c:\instarch\data\system 2\012823 -\1284318_005.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 15:04
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	4.92	0.7053	34671	2652	



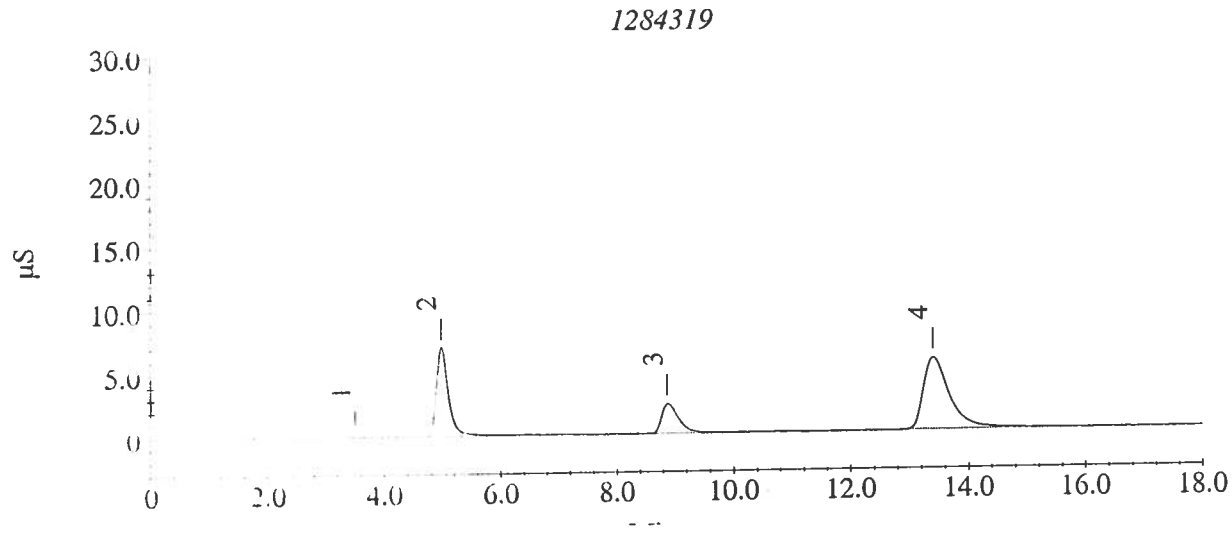
Sample Analysis Report

Sample Name : 1284319
Data File Name : c:\instarch\data\system 2\012823 -\1284319_006.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 15:24
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.50	0.1957	8857	538	
2	Chloride	4.97	4.4553	991823	69723	
3	Nitrate	8.87	1.0015	467638	23554	
4	Sulfate	13.38	11.4648	1796809	57107	



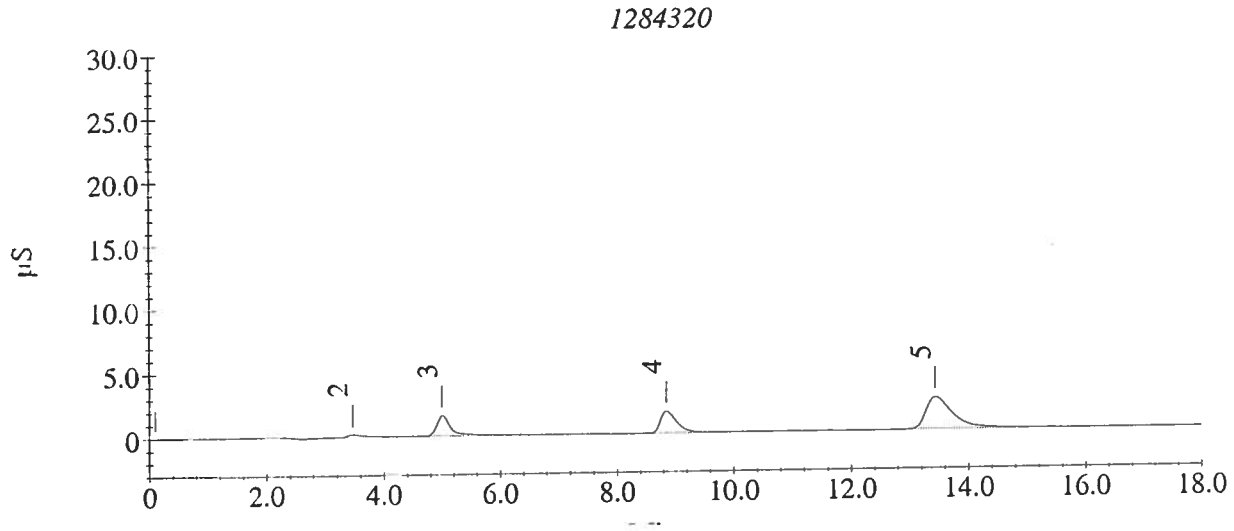
Sample Analysis Report

Sample Name : 1284320
Data File Name : c:\instarch\data\system 2\012823 -\1284320_007.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 15:45
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.3627	32816	1780	
3	Chloride	5.00	1.6420	273738	15717	
4	Nitrate	8.85	0.7379	327093	16655	
5	Sulfate	13.43	5.6375	787434	24652	



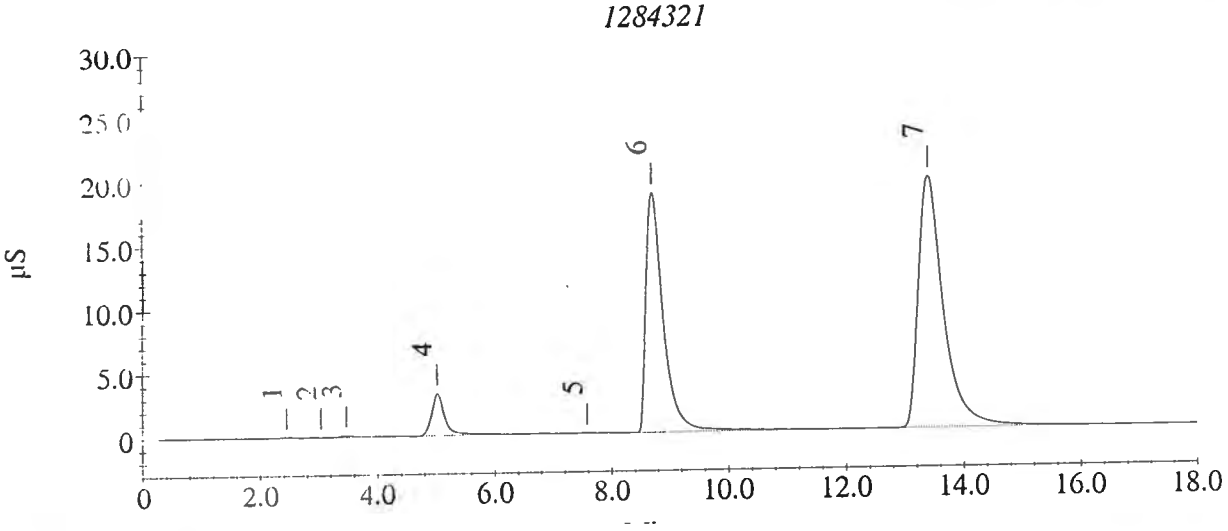
Sample Analysis Report

Sample Name : 1284321
Data File Name : c:\instarch\data\system 2\012823 -\1284321_008.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 16:05
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.47	0.2773	20562	1038	
4	Chloride	5.02	2.5841	514195	32566	
5	Bromide	7.58	0.0664	4496	265	
6	Nitrate	8.70	7.5017	3933081	187693	+
7	Sulfate	13.40	35.2355	5914216	197231	



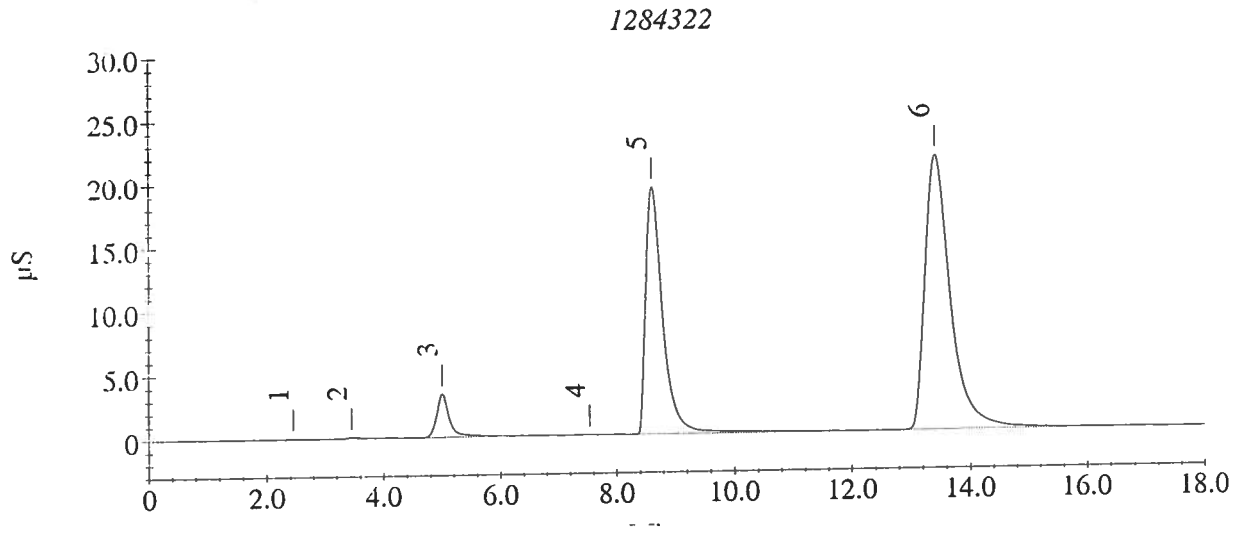
Sample Analysis Report

Sample Name : 1284322
Data File Name : c:\instarch\data\system 2\012823 -\1284322_009.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 16:25
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.45	0.2523	16984	1004	
3	Chloride	5.00	2.6126	521493	33830	
4	Bromide	7.53	0.0693	4731	297	
5	Nitrate	8.60	7.4947	3929398	193795	+
6	Sulfate	13.40	38.2963	6444392	216039	



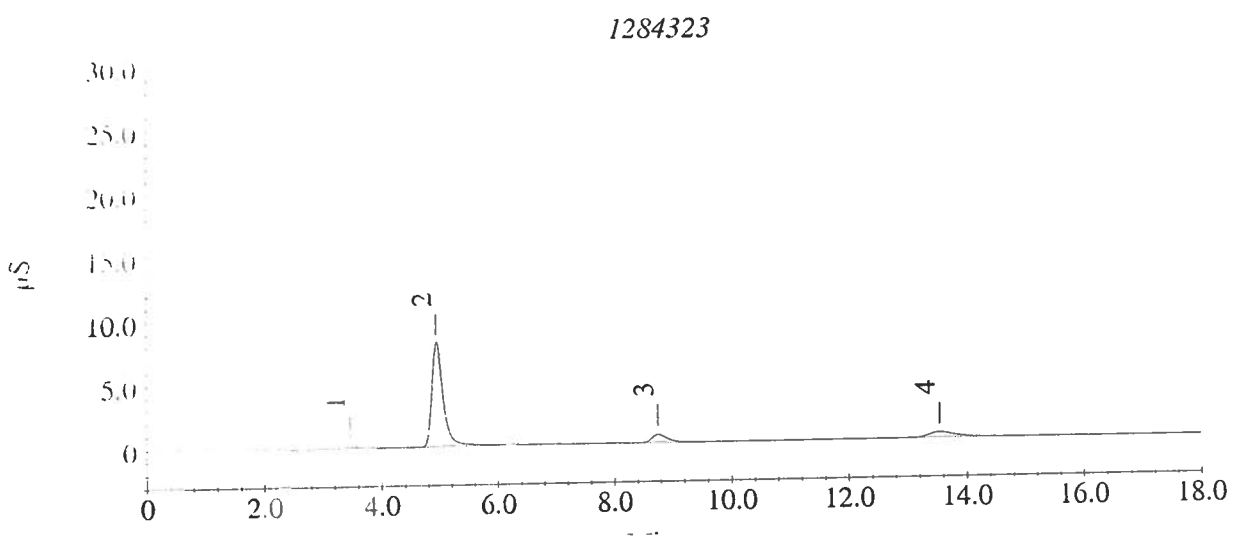
Sample Analysis Report

Sample Name : 1284323
Data File Name : c:\instarch\data\system 2\012823 -\1284323_010.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 16:45
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.47	0.1996	9413	598	
2	Chloride	4.93	4.8202	1084952	79980	
3	Nitrate	8.75	0.3287	108920	6159	
4	Sulfate	13.53	1.8808	136724	4223	



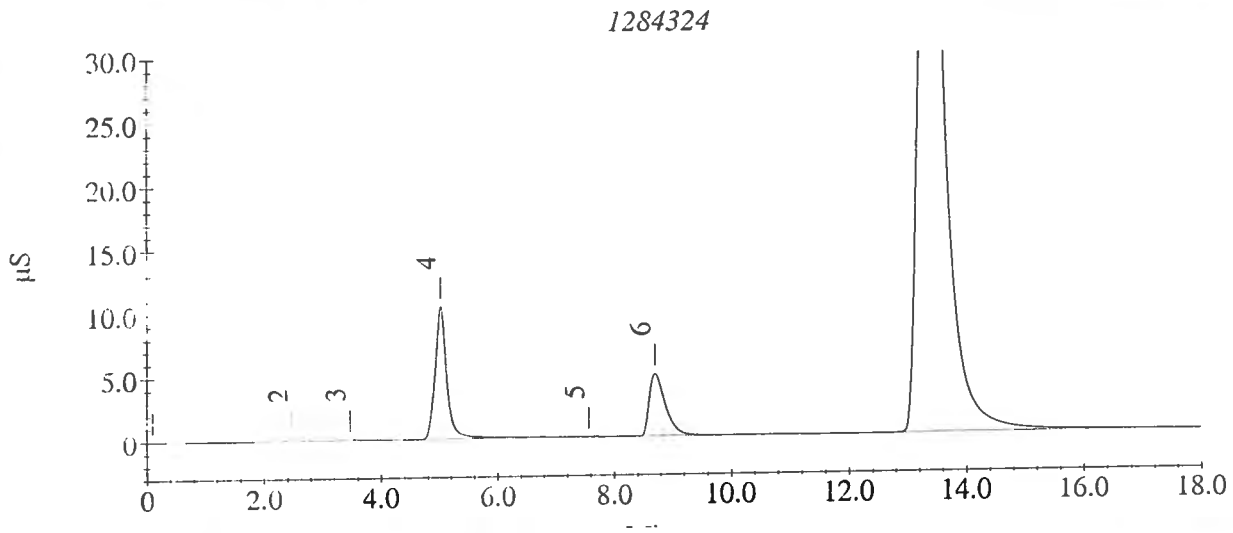
Sample Analysis Report

Sample Name : 1284324
Data File Name : c:\instarch\data\system 2\012823 -\1284324_011.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 17:05
System Operator : TMC

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.47	0.2850	21671	1011	
4	Chloride	5.02	6.2939	1461098	103942	
5	Bromide	7.57	0.0398	2310	145	
6	Nitrate	8.70	1.9059	949775	49348	
7	Sulfate	13.37	97.0268	16617303	554246	+



Sample Analysis Report

Not used

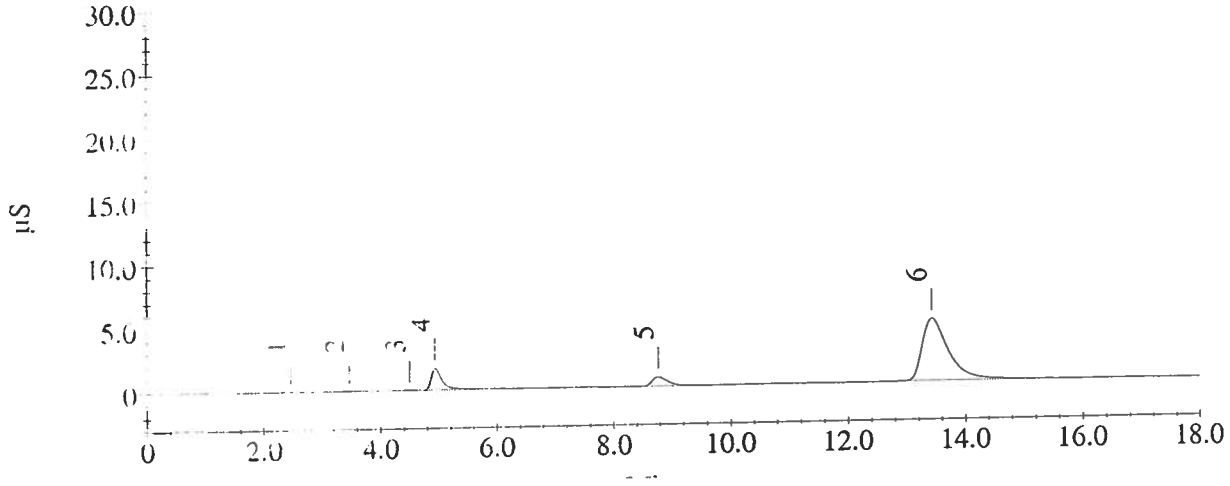
Sample Name : 1284317X5
Data File Name : c:\instarch\data\system 2\012823 -\1284317X5_012.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 17:26
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.1418	1133	110	
4	Chloride	4.93	1.4632	228111	16885	
5	Nitrate	8.77	0.3640	127756	7034	
6	Sulfate	13.42	9.9708	1538032	48513	

1284317X5



Sample Analysis Report

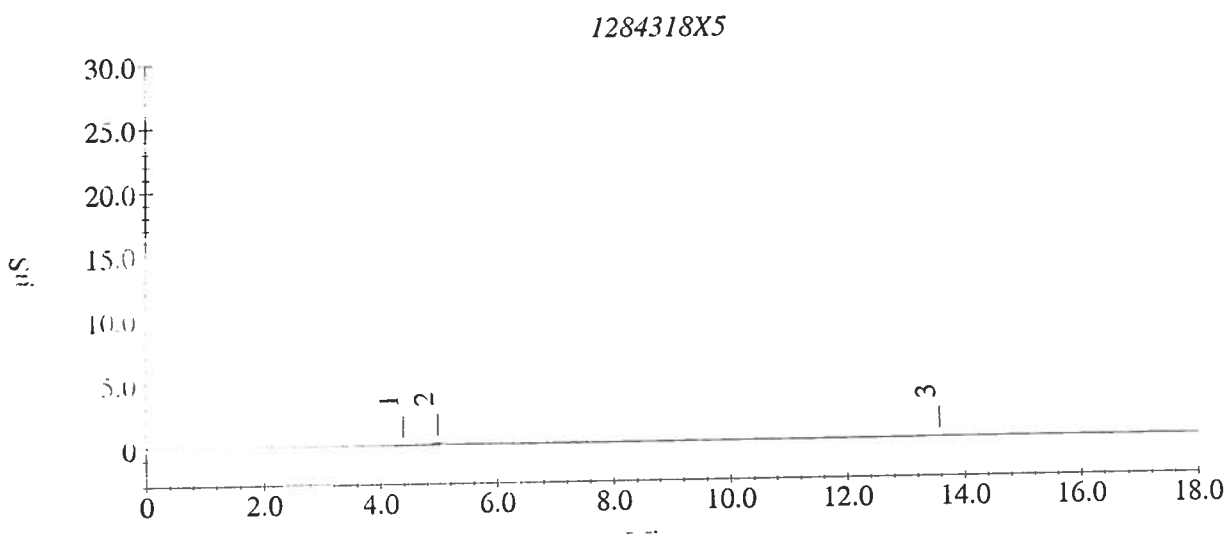
Not used

Sample Name : 1284318X5
Data File Name : c:\instarch\data\system 2\012823 -\1284318X5_013.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 17:46
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	4.98	0.6511	20831	1052	
3	Sulfate	13.57	1.1034	2073	101	



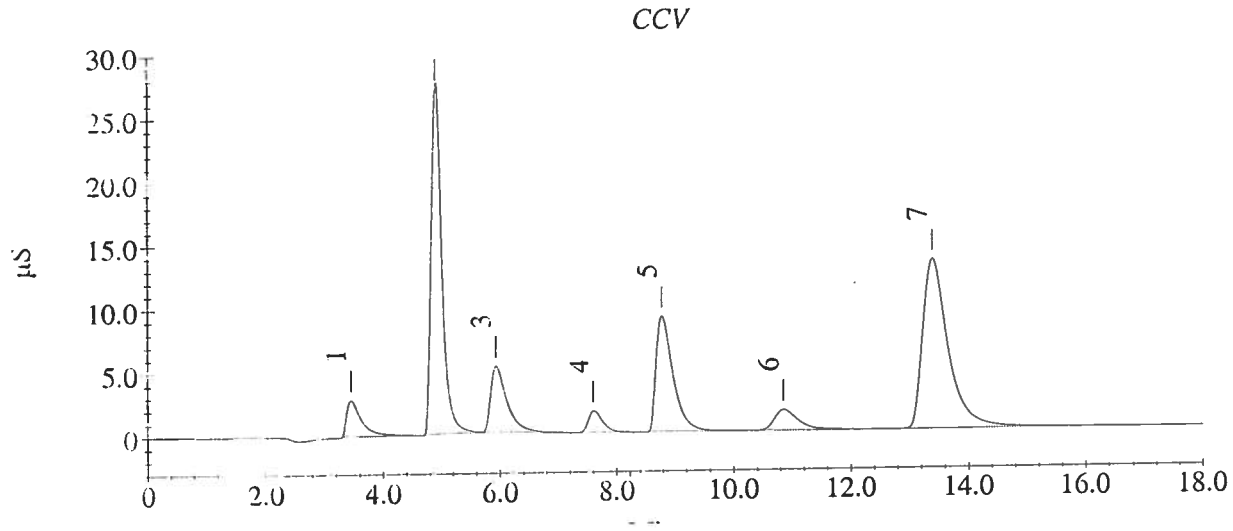
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012823 -\CCV_014.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 18:00
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	3.6475	503999	28258	
2	Chloride	4.90	14.5008	3555846	272338	
3	Nitrite	5.93	3.5199	1009816	51938	
4	Bromide	7.60	3.5930	293749	16803	
5	Nitrate	8.78	3.5856	1845275	91023	
6	O.Phos	10.85	3.6239	462262	16055	
7	Sulfate	13.38	24.3451	4027848	133632	



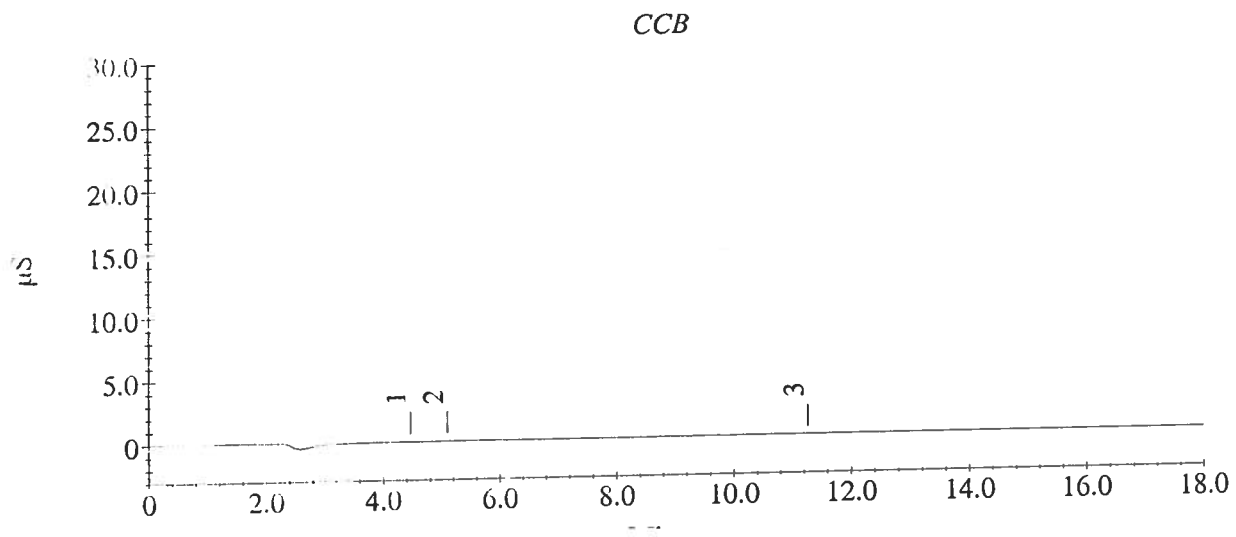
Sample Analysis Report

Sample Name : CCB
Data File Name : c:\instarch\data\system 2\012823 -\CCB_015.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 18:26
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	5.10	0.5840	3698	172	
3	O.Phos	11.27	-0.0263	1761	53	



Sample Analysis Report

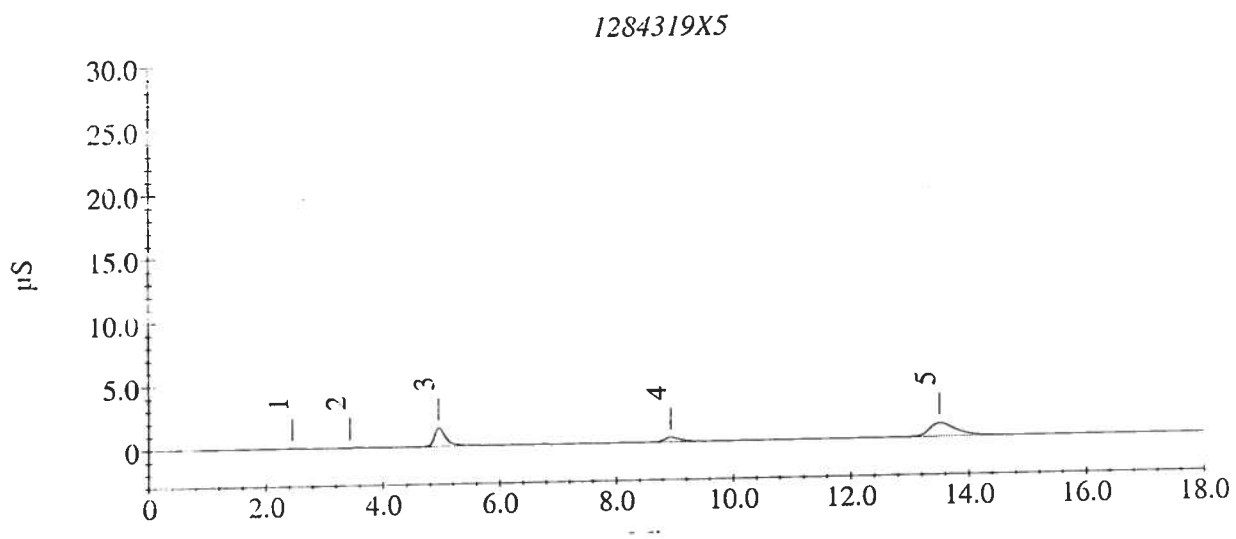
Not used

Sample Name : 1284319X5
Data File Name : c:\instarch\data\system 2\012823 -\1284319X5_016.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 18:46
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.43	0.1492	2194	148	
3	Chloride	4.95	1.3698	204254	14258	
4	Nitrate	8.93	0.2453	64435	3495	
5	Sulfate	13.50	3.0264	335168	10450	



Not used

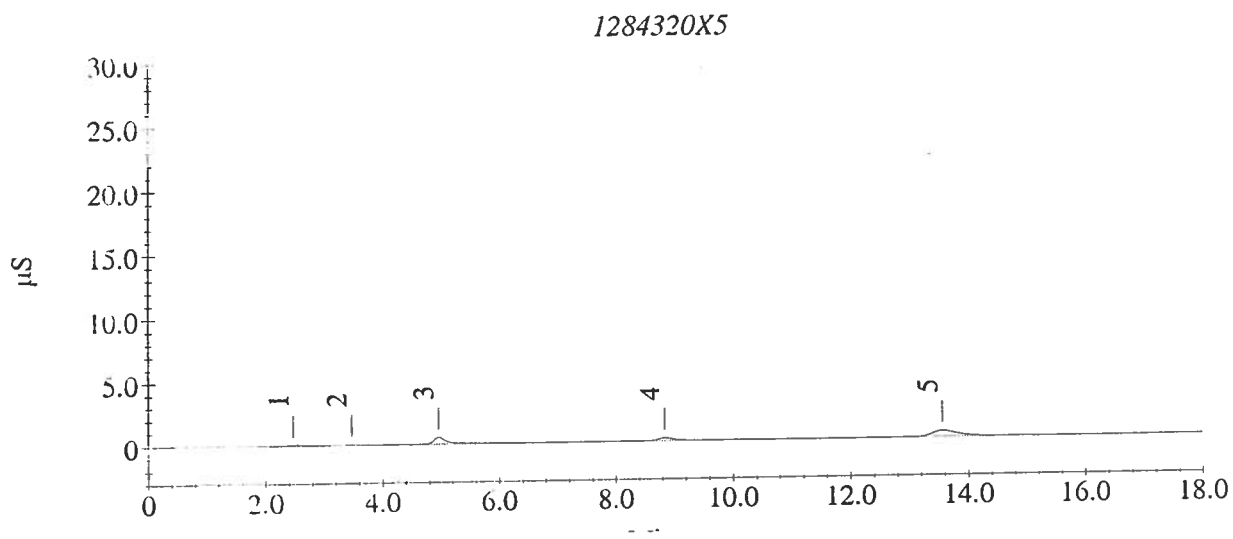
Sample Analysis Report

Sample Name : 1284320X5
Data File Name : c:\instarch\data\system 2\012823 -\1284320X5_017.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 19:07
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.1844	7240	393	
3	Chloride	4.95	0.9132	87720	5190	
4	Nitrate	8.83	0.1996	40075	2215	
5	Sulfate	13.55	1.9577	150042	4729	



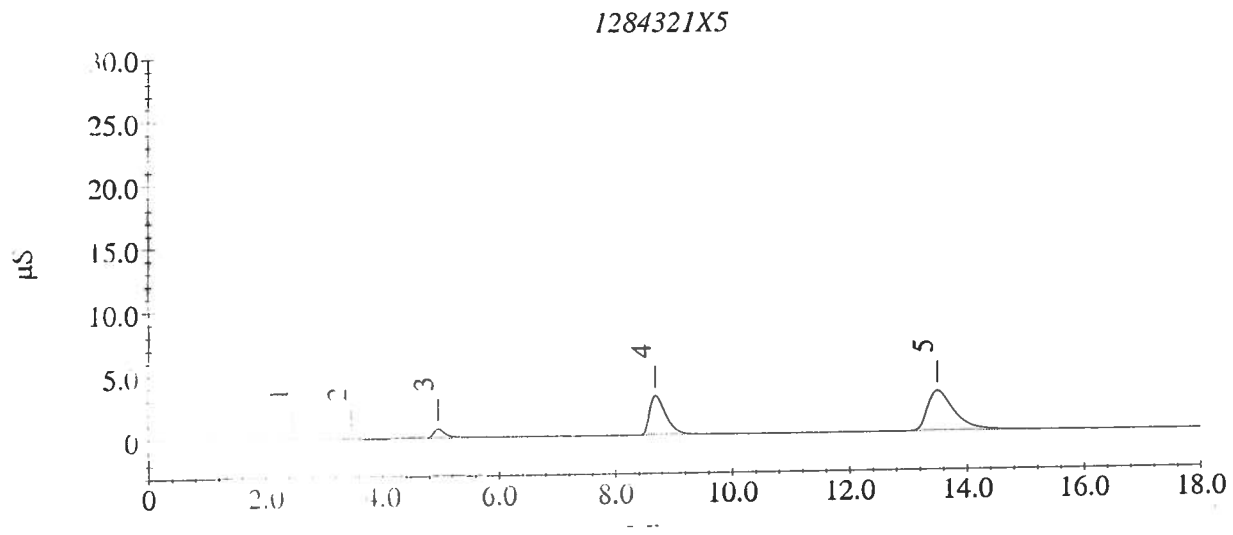
Sample Analysis Report

Sample Name : 1284321X5
Data File Name : c:\instarch\data\system 2\012823 -\1284321X5_018.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 19:27
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.47	0.1541	2889	161	
3	Chloride	4.95	1.0293	117351	7278	
4	Nitrate	8.68	1.2573	604016	30949	
5	Sulfate	13.48	6.9565	1015908	31821	



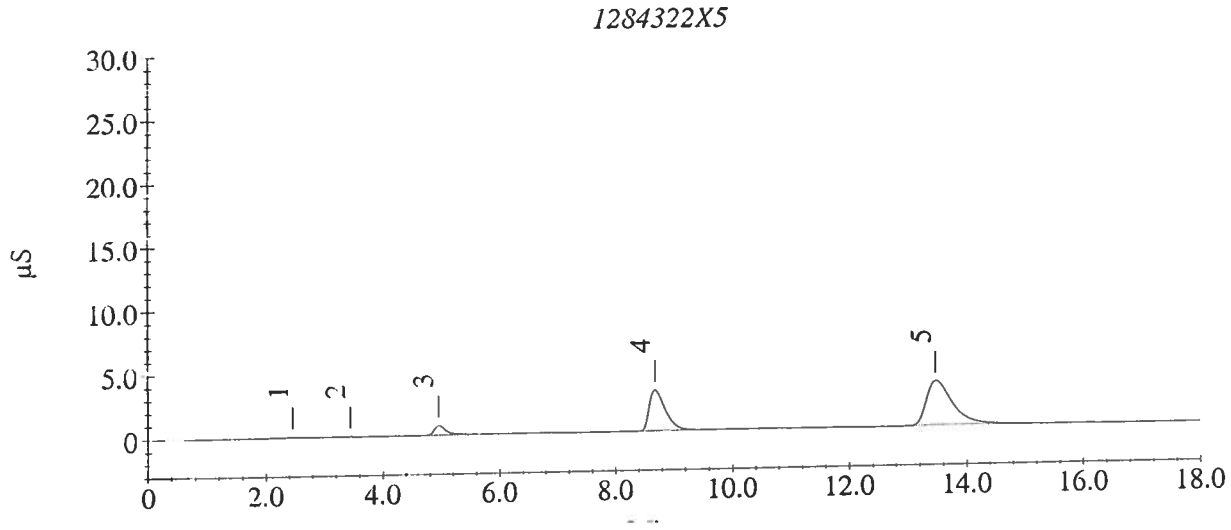
Sample Analysis Report

Sample Name : 1284322X5
Data File Name : c:\instarch\data\system 2\012823 -\1284322X5_019.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 19:47
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.45	0.1548	2994	177	
3	Chloride	4.95	1.0113	112751	7416	
4	Nitrate	8.68	1.2622	606616	31598	
5	Sulfate	13.47	7.4849	1107436	34720	



Sample Analysis Report

Not used

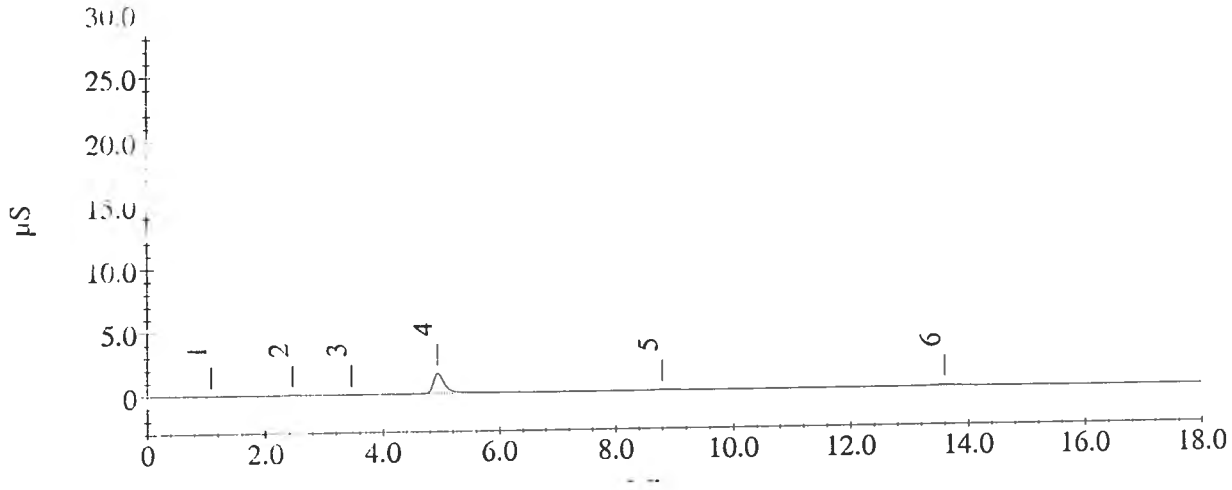
Sample Name : 1284323X5
Data File Name : c:\instarch\data\system 2\012823 -\1284323X5_020.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 20:07
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	3.47	0.1559	3157	156	
4	Chloride	4.93	1.4425	222815	15785	
5	Nitrate	8.80	0.1362	6310	368	
6	Sulfate	13.60	1.2421	26100	815	

1284323X5



Sample Analysis Report

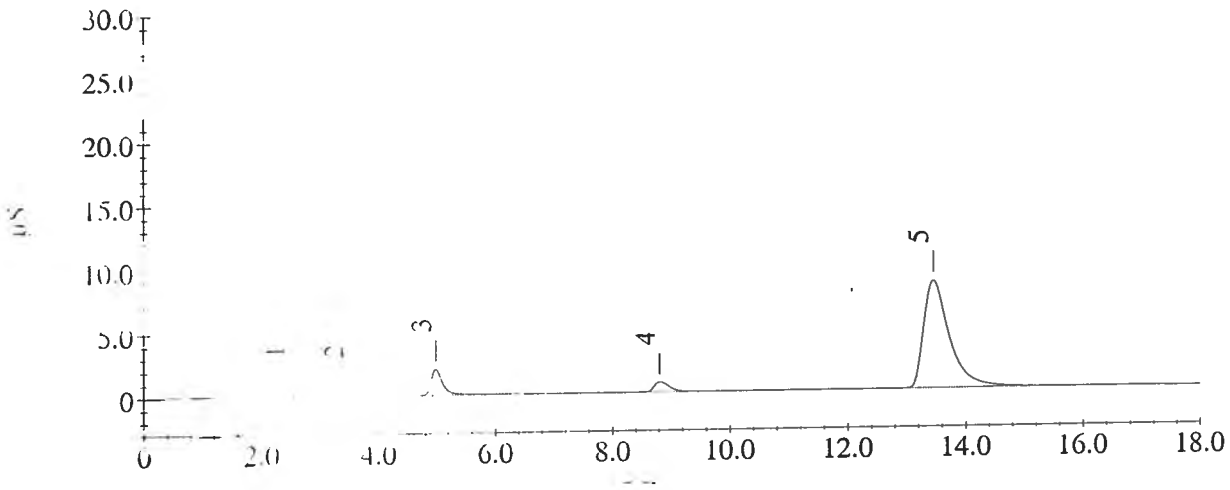
Sample Name : 1284324X5
Data File Name : c:\instarch\data\system 2\012823 -\1284324X5_021.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 20:28
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.48	0.1501	2312	155	
3	Chloride	4.98	1.7014	288905	20326	
4	Nitrate	8.82	0.3962	144915	7947	
5	Sulfate	13.45	16.0748	2595325	84691	

1284324X5



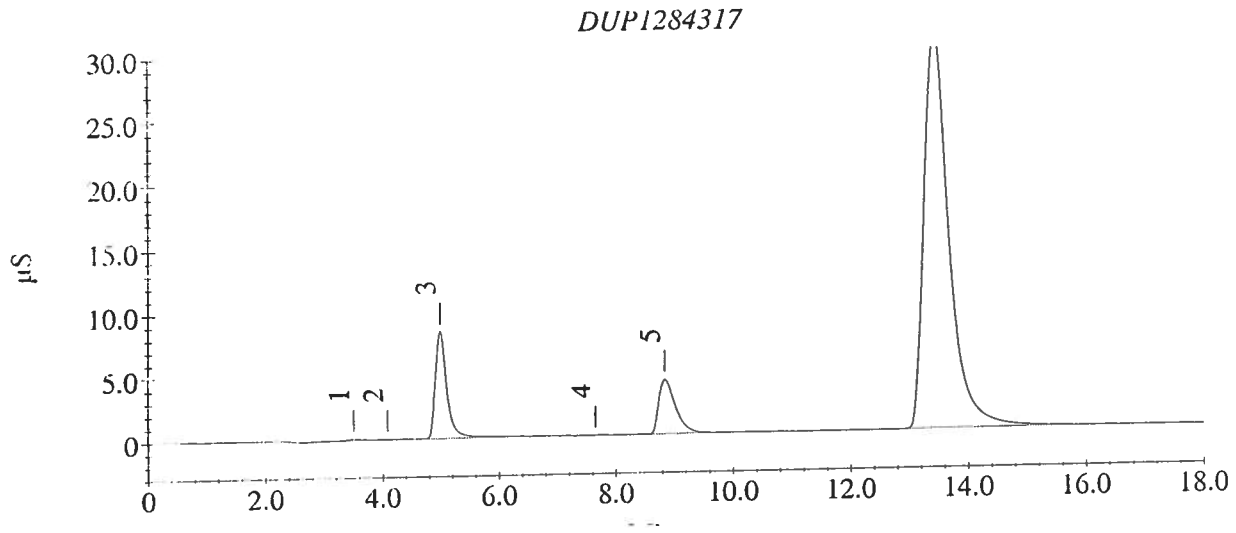
Sample Analysis Report

Sample Name : DUP1284317
Data File Name : c:\instarch\data\system 2\012823 -\DUP1284317_022.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 20:48
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.50	0.2047	10155	690	
3	Chloride	4.98	5.0992	1156161	83784	
4	Bromide	7.65	0.0554	3593	218	
5	Nitrate	8.83	1.6996	839811	42586	
6	Sulfate	13.42	54.1159	9184548	311431	



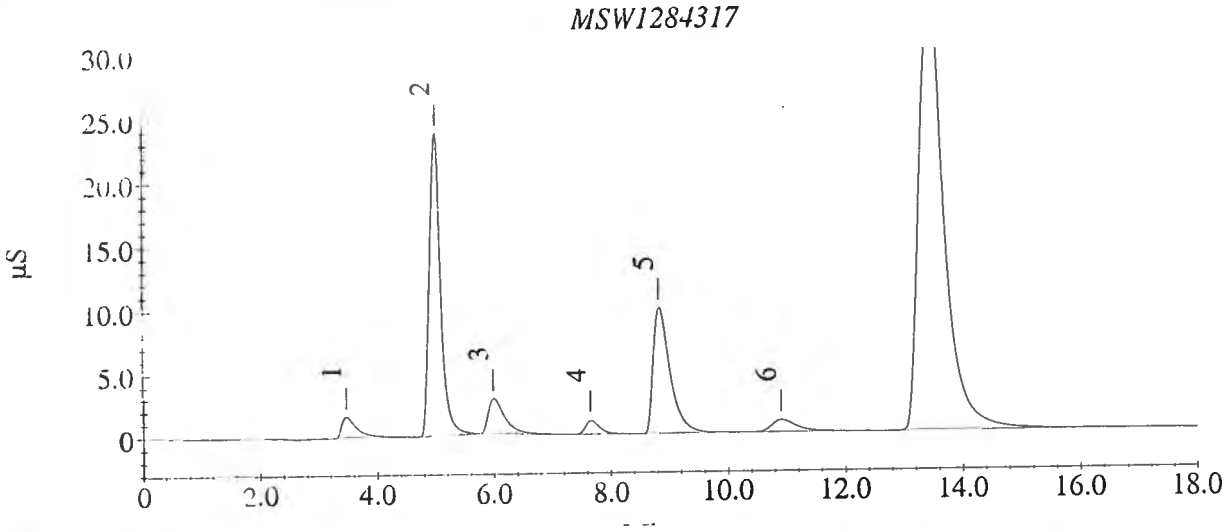
Sample Analysis Report

Sample Name : MSW1284317
Data File Name : c:\instarch\data\system 2\012823 -\MSW1284317_023.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 21:08
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.47	2.2644	305594	16261	
2	Chloride	4.98	13.0086	3174974	237038	
3	Nitrite	5.98	1.9410	544720	27591	
4	Bromide	7.65	2.2210	181220	10568	
5	Nitrate	8.82	3.8271	1974033	98423	
6	O-Phos	10.90	2.2081	283651	9440	
7	Sulfate	13.43	60.4800	10286902	347533	



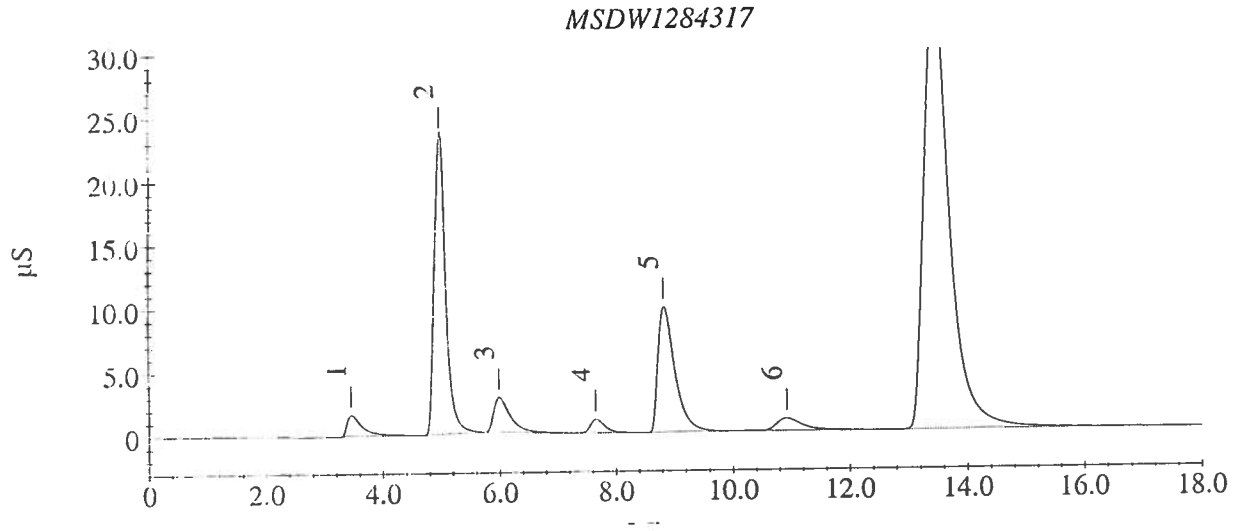
Sample Analysis Report

Sample Name : MSDW1284317
Data File Name : c:\instarch\data\system 2\012823 -\MSDW1284317_024.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 21:28
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	3.45	2.2980	310418	16207	
2	Chloride	4.97	13.0418	3183443	234242	
3	Nitrite	5.98	1.9491	547089	27397	
4	Bromide	7.65	2.2361	182461	10611	
5	Nitrate	8.82	3.8376	1979646	97999	
6	O.Phos	10.92	2.3364	299829	9672	
7	Sulfate	13.43	60.7890	10340426	347456	



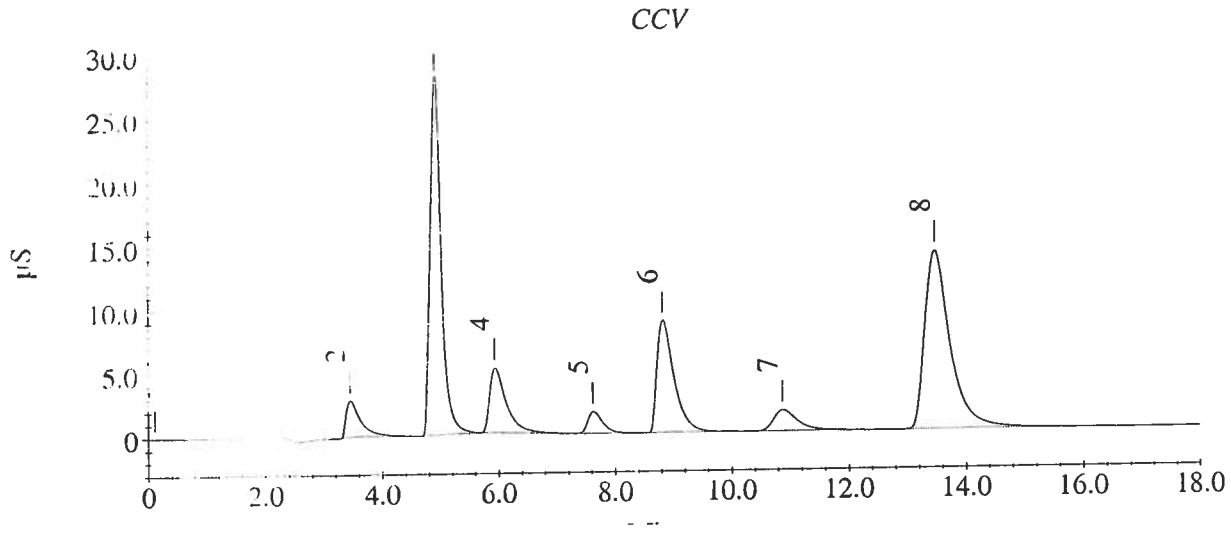
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\012823 -\CCV_025.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 21:48
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	3.45	3.6770	508230	28604	
3	Chloride	4.90	15.0733	3701981	279566	
4	Nitrite	5.93	3.5577	1020956	50810	
5	Bromide	7.62	3.6851	301309	16853	
6	Nitrate	8.82	3.5317	1816530	87902	
7	O.Phos	10.87	3.7403	476946	16467	
8	Sulfate	13.47	25.6254	4249610	140841	



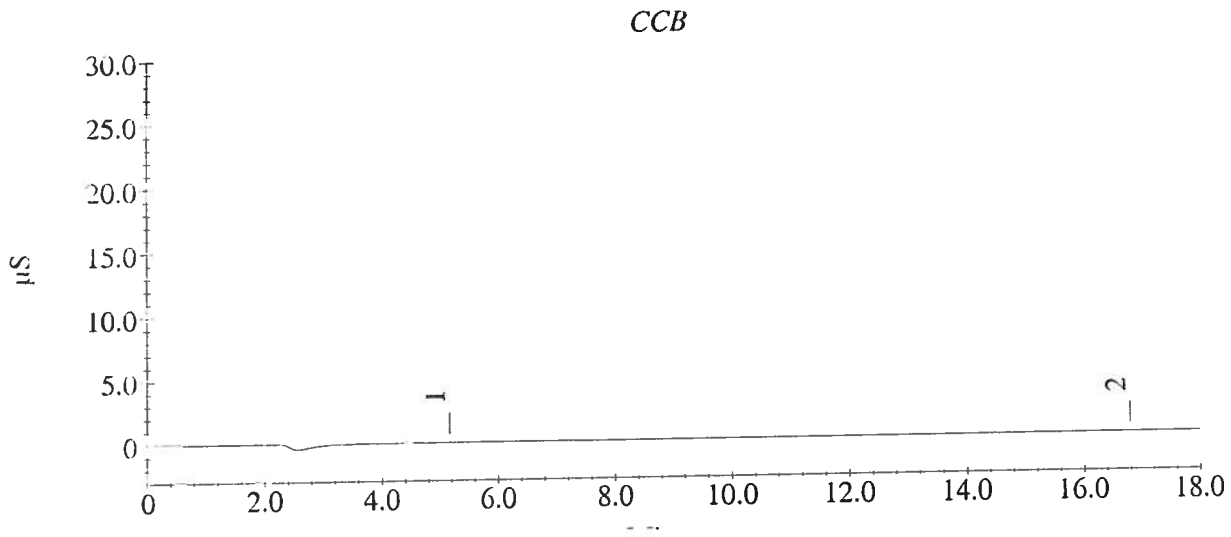
Sample Analysis Report

Sample Name : CCB
Data File Name : c:\instarch\data\system 2\012823 -\CCB_026.DXD

Method File Name : c:\instarch\methods\system 2\ic4429.met
Date Time Collected : 1/28/23 22:08
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	5.17	0.5773	1977	92	



pH - Mettler Toledo Seven Easy

(Methods: pH EPA 150.1, SM4500H+B, EPA 9040C, EPA 9045D)

Date:	01/30/2023	Analyst:	SJP	Lims #:	268915	Slope (%)	96%

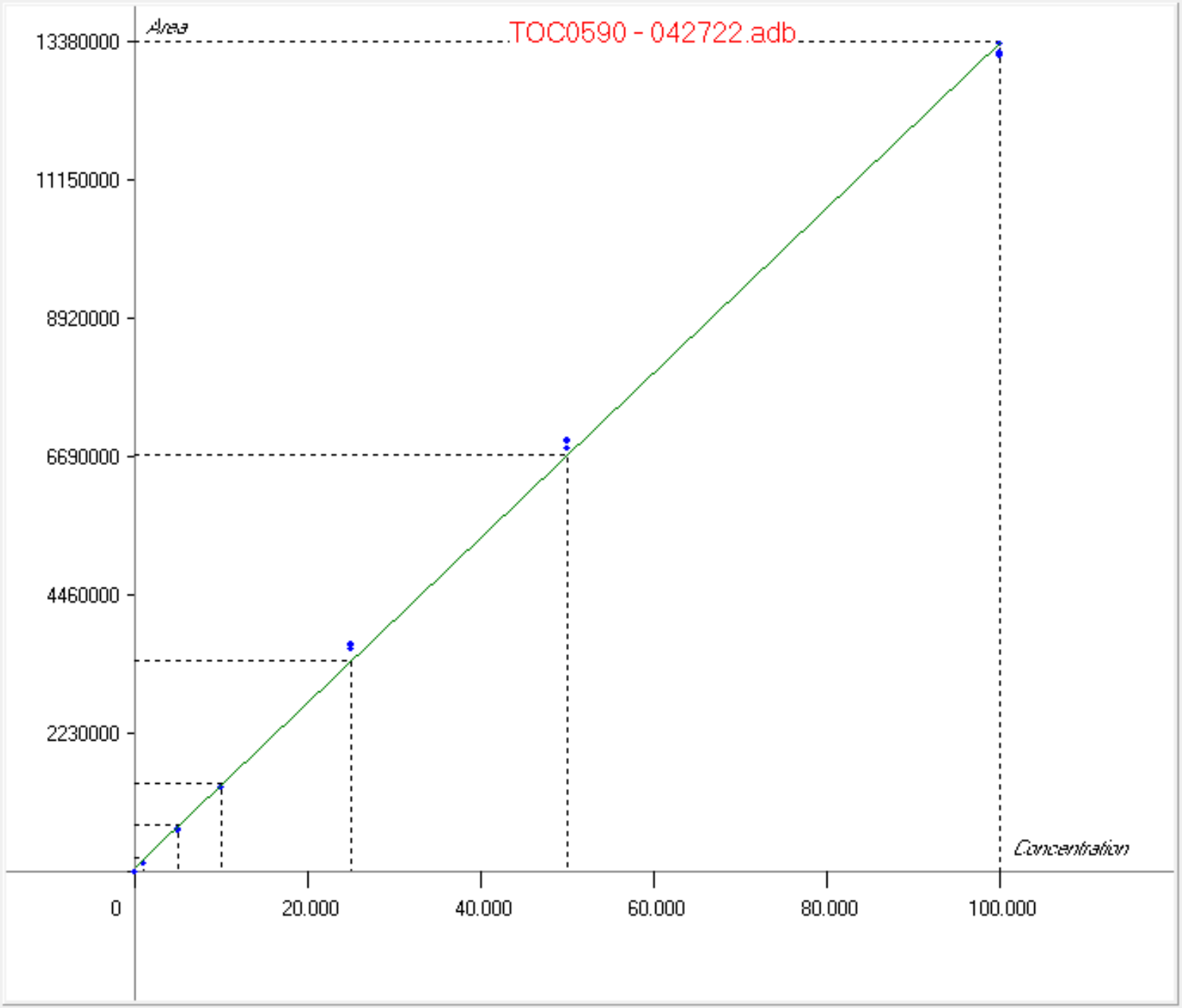
GRP	Sample ID#	Matrix	DF	Corrected Temp (°C)*	Result	
1	BUFFER 7	QC	1	23.5	7.01	
2			1			
3			1			
4			1			
5			1			
6			1			
7			1			
8			1			
9			1			
10			1			
11	1284325	GW	1	8.8	7.62	
dup 11	1284325	GW	1	9.0	7.66	
12	BUFFER 7	QC	1	23.7	7.01	
13			1			
14			1			
15			1			
16			1			
17			1			
18			1			
19			1			
20			1			
21			1			
23			1			
dup 23			1			
24	BUFFER 7		1			
25			1			
dup 25			1			
26			1			
dup 26			1			

To datacapture: Save CSV file under the TSS datacapture folder.

*Temperature of samples should be room temperature around 25°C

Buffer Standard IDs:

pH 4: WC507 pH 7: WC550 pH 10: WC453



Cursor Position

Concentration	Area
119.800 mg/l	-1895500

A2	0
A1	132871
A0	95820
Correlation	0.99952
Order	1
Volume	100 µl
Conc.	100.00
Area	13373923

☐ Confidence Intervals 95%

☐ Detection/Determination 95%

Conc.	Area	Sel.
0	0	☑
0	0	☑
0	0	☑
0	0	☑
1	165320	☑
1	148018	☑
1	166376	☑
1	149662	☑

• Used Value
• Ignored Value

CurveNo:1 CurveType:TC

<-- --> Print... Exit

Analysis Name TOC0590 - 042722.adb

Template Name CURVE TEMP.tdb
Method Name N / A
Operator TMG

Date Wednesday, April 27, 2022
Time 9:08

Start Oven Temp. 752 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL: TOC0590 INSTRUMENT:TOCW

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %

SampleTime 240 s

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	This Analysis	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	BLANK	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 9:19:28	ZERO !	86217	1	756	2	-	-
2	4/27/2022 9:22:21	0.00	0	0	755	2	-	Yes
3	4/27/2022 9:26:23	0.00	0	0	757	2	-	Yes
4	4/27/2022 9:30:24	0.00	0	0	758	2	-	Yes
5	4/27/2022 9:34:26	0.00	0	0	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Standard	TC Std 0.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 9:39:18	0.00	0	1	760	2	-	Yes
2	4/27/2022 9:43:56	0.00	0	1	759	2	-	Yes
3	4/27/2022 9:47:58	0.00	0	1	759	2	-	Yes
4	4/27/2022 9:52:00	0.00	0	1	759	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S2	Standard	TC Std 1.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.46**	**157344**	**6.26**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 9:56:53	0.52	165320	1	758	2	-	Yes
2	4/27/2022 9:59:54	0.39	148018	1	758	2	-	Yes
3	4/27/2022 10:02:12	0.53	166376	1	757	2	-	Yes
4	4/27/2022 10:04:34	0.41	149662	1	757	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	S3	Standard	TC Std. 5.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**4.56**	**700856**	**0.90**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 10:08:04	4.62	709067	1	757	2	-	Yes
2	4/27/2022 10:11:22	4.51	695235	1	756	2	-	Yes
3	4/27/2022 10:13:57	4.57	702460	1	757	2	-	Yes
4	4/27/2022 10:16:36	4.52	696665	1	756	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
5	S4	Standard	TC Std. 10.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**9.67**	**1380399**	**0.64**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.

	1	4/27/2022 10:20:05	9.63	1375951	1	757	2	-	Yes
	2	4/27/2022 10:23:28	9.59	1370364	1	757	2	-	Yes
	3	4/27/2022 10:26:11	9.71	1385504	1	756	2	-	Yes
	4	4/27/2022 10:28:58	9.74	1389779	1	756	2	-	Yes

6	S5	Standard	TC Std. 25.00 mg/l				1 x		
		TC	**26.66**	**3638253**		**0.96**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	4/27/2022 10:32:38	26.77	3653032	1	757	2	-	Yes
	2	4/27/2022 10:36:19	26.47	3612880	1	757	2	-	Yes
	3	4/27/2022 10:39:12	26.42	3606492	1	757	2	-	Yes
	4	4/27/2022 10:42:08	26.98	3680609	1	756	2	-	Yes

7	S6	Standard	TC Std. 50.00 mg/l				1 x		
		TC	**51.46**	**6933403**		**0.82**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	4/27/2022 10:45:53	50.86	6853888	1	756	2	-	Yes
	2	4/27/2022 10:49:34	51.52	6941430	1	756	2	-	Yes
	3	4/27/2022 10:52:51	51.88	6989245	1	755	2	-	Yes
	4	4/27/2022 10:55:58	51.58	6949049	1	756	2	-	Yes

8	S7	Standard	TC Std. 100.00 mg/l				1 x		
		TC	**98.91**	**13238800**		**0.71**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	4/27/2022 10:59:59	98.31	13158295	1	755	2	-	Yes
	2	4/27/2022 11:03:59	99.93	13373923	1	755	2	-	Yes
	3	4/27/2022 11:07:16	98.77	13219156	1	755	2	-	Yes
	4	4/27/2022 11:10:35	98.65	13203826	1	754	2	-	Yes

9	S8	Unknown	ICV - 50.00 mg/L				1 x		
		TC	**49.82**	**6715782**		**0.53**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	4/27/2022 11:14:34	49.90	6726441	1	754	2	-	Yes
	2	4/27/2022 11:18:15	49.63	6689710	1	754	2	-	Yes
	3	4/27/2022 11:21:15	50.16	6761041	1	754	2	-	Yes
	4	4/27/2022 11:24:16	49.60	6685936	1	754	2	-	Yes

10	2	Unknown	ICB				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	4/27/2022 11:28:12	0	0	0	754	2	-	Yes
	2	4/27/2022 11:32:49	0	0	0	754	2	-	Yes
	3	4/27/2022 11:36:50	0	0	0	754	2	-	Yes
	4	4/27/2022 11:40:52	0	0	0	753	2	-	Yes

Analysis Name 013023 - 268891 268892 268893 268894.adb

Template Name 013023 - 268891 268892 268893 268894.tdb
Method Name N / A
Operator TMG

Date Monday, January 30, 2023
Time 11:37

Start Oven Temp. 769 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0590 INSTRUMENT:TOCW
CCV0649 LCS0650 SPIKE0623

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %

SampleTime 240 s

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0590 - 042722	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**227149**	**94.19**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 11:48:29	3.28	532235	1	768	2	-	Yes
2	1 30 2023 11:52:06	0.90	214839	1	766	2	-	Yes
3	1 30 2023 11:54:34	0.07	105660	1	765	2	-	Yes
4	1 30 2023 11:56:58	0	0	0	764	2	-	-
5	1 30 2023 12:01:00	ZERO !	55864	1	764	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**46.07**	**6217180**	**1.79**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 12:04:09	46.05	6214212	1	763	2	-	Yes
2	1 30 2023 12:08:05	44.90	6061372	1	763	2	-	Yes
3	1 30 2023 12:11:24	46.56	6282595	1	762	2	-	Yes
4	1 30 2023 12:14:31	46.77	6310544	1	761	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S5	Unknown	LCSW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**47.64**	**6425204**	**1.41**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 12:18:34	48.30	6513084	1	760	2	-	Yes
2	1 30 2023 12:22:21	47.88	6457119	1	760	2	-	Yes
3	1 30 2023 12:25:28	46.69	6298987	1	759	2	-	Yes
4	1 30 2023 12:28:32	47.68	6431628	1	759	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**35514**	**115.63**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 12:32:41	ZERO !	73647	1	758	2	-	Yes
2	1 30 2023 12:35:43	0	0	0	757	2	-	Yes
3	1 30 2023 12:39:44	0	0	0	757	2	-	Yes
4	1 30 2023 12:43:47	ZERO !	68410	1	757	2	-	Yes
5	1 30 2023 12:46:03	0	0	0	756	2	-	-

13	11	Unknown	1283670					1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 14:44:44	0	0	0	752	2	-	Yes	
	2	1 30 2023 14:49:22	0	0	0	752	2	-	Yes	
	3	1 30 2023 14:53:24	0	0	0	752	2	-	Yes	
	4	1 30 2023 14:57:26	0	0	0	752	2	-	Yes	
14	12	Unknown	DUP1283670					1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 15:02:20	0	0	0	752	2	-	Yes	
	2	1 30 2023 15:06:58	0	0	0	752	2	-	Yes	
	3	1 30 2023 15:10:59	0	0	0	752	2	-	Yes	
	4	1 30 2023 15:14:59	0	0	0	752	2	-	Yes	
15	S1	Unknown	CCV					1 x		
		TC	**45.70**	**6168016**		**0.86**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 15:19:53	45.76	6176124	1	752	2	-	Yes	
	2	1 30 2023 15:23:43	45.63	6158134	1	752	2	-	Yes	
	3	1 30 2023 15:26:54	45.22	6104475	1	752	2	-	Yes	
	4	1 30 2023 15:29:56	46.19	6233332	1	752	2	-	Yes	
16	13	Unknown	CCB					1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 15:33:54	0	0	0	752	2	-	Yes	
	2	1 30 2023 15:38:31	0	0	0	752	2	-	Yes	
	3	1 30 2023 15:42:33	0	0	0	752	2	-	Yes	
	4	1 30 2023 15:46:34	0	0	0	752	2	-	Yes	
17	14	Unknown	MSW1283670					1 x		
		TC	**46.47**	**6270360**		**1.29**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 15:51:26	46.30	6248325	1	752	2	-	Yes	
	2	1 30 2023 15:55:04	46.15	6227315	1	752	2	-	Yes	
	3	1 30 2023 15:57:52	47.37	6389856	1	751	2	-	Yes	
	4	1 30 2023 16:00:47	46.06	6215947	1	752	2	-	Yes	
18	15	Unknown	MSDW1283670					1 x		
		TC	**45.78**	**6179211**		**0.75**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 16:04:30	45.73	6172583	1	752	2	-	Yes	
	2	1 30 2023 16:08:10	45.55	6147889	1	751	2	-	Yes	
	3	1 30 2023 16:11:05	45.57	6150116	1	752	2	-	Yes	
	4	1 30 2023 16:14:00	46.29	6246259	1	752	2	-	Yes	
19	16	Unknown	1283671					1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 16:17:40	0	0	0	752	2	-	Yes	
	2	1 30 2023 16:22:18	0	0	0	752	2	-	Yes	
	3	1 30 2023 16:26:20	0	0	0	752	2	-	Yes	
	4	1 30 2023 16:30:22	0	0	0	752	2	-	Yes	
20	17	Unknown	1283672					1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	1 30 2023 16:35:15	0	0	0	752	2	-	Yes	
	2	1 30 2023 16:39:53	0	0	0	752	2	-	Yes	
	3	1 30 2023 16:43:54	0	0	0	752	2	-	Yes	

4	1 30 2023 16:47:56	0	0	0	752	2	-	Yes

21	18	Unknown	1283673				1 x	
		TC	**0.05**	**102615**	**6.82**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 16:52:48	0.10	109637	1	752	2	-	Yes
2	1 30 2023 16:55:38	0.00	96385	1	751	2	-	Yes
3	1 30 2023 16:57:46	0.09	107623	1	751	2	-	Yes
4	1 30 2023 16:59:56	0.01	96815	1	751	2	-	Yes

22	19	Unknown	1283674				1 x	
		TC	**ZERO !**	**86657**	**5.63**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 17:03:59	ZERO !	91793	1	751	2	-	Yes
2	1 30 2023 17:06:45	ZERO !	80026	1	751	2	-	Yes
3	1 30 2023 17:08:52	ZERO !	87292	1	751	2	-	Yes
4	1 30 2023 17:11:01	ZERO !	87520	1	750	2	-	Yes

23	20	Unknown	1283675				1 x	
		TC	**0.00**	**0**	**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 17:15:07	ZERO !	52880	1	752	2	-	-
2	1 30 2023 17:17:56	0	0	0	751	2	-	Yes
3	1 30 2023 17:21:57	0	0	0	752	2	-	Yes
4	1 30 2023 17:25:59	0	0	0	752	2	-	Yes
5	1 30 2023 17:30:01	0	0	0	752	2	-	Yes

24	21	Unknown	1283676				1 x	
		TC	**0.00**	**0**	**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 17:34:55	0	0	0	752	2	-	Yes
2	1 30 2023 17:39:33	0	0	0	752	2	-	Yes
3	1 30 2023 17:43:34	0	0	0	752	2	-	Yes
4	1 30 2023 17:47:37	0	0	0	752	2	-	Yes

27	S1	Unknown	CCV				1 x	
		TC	**45.64**	**6160015**	**0.85**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 18:32:54	45.16	6096590	1	752	2	-	Yes
2	1 30 2023 18:36:45	45.65	6161458	1	752	2	-	Yes
3	1 30 2023 18:39:49	45.62	6156921	1	751	2	-	Yes
4	1 30 2023 18:42:55	46.13	6225091	1	752	2	-	Yes

28	S5	Unknown	LCSW				1 x	
		TC	**47.26**	**6375529**	**1.13**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.

1	1 30 2023 18:46:54	46.71	6302467	1	752	2	-	Yes
2	1 30 2023 18:50:43	46.89	6326294	1	751	2	-	Yes
3	1 30 2023 18:53:55	47.64	6425375	1	752	2	-	Yes
4	1 30 2023 18:57:01	47.81	6447982	1	752	2	-	Yes

29 24 Unknown MBW-CCB 1 x

TC **0.00** **0** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 19:01:00	0	0	0	752	2	-	Yes
2	1 30 2023 19:05:37	0	0	0	752	2	-	Yes
3	1 30 2023 19:09:39	0	0	0	752	2	-	Yes
4	1 30 2023 19:13:41	0	0	0	752	2	-	Yes

35 30 Unknown 1284317 1 x

TC **0.00** **0** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 20:30:53	ZERO !	65589	1	752	2	-	-
2	1 30 2023 20:33:41	0	0	0	751	2	-	Yes
3	1 30 2023 20:37:43	0	0	0	752	2	-	Yes
4	1 30 2023 20:41:44	0	0	0	752	2	-	Yes
5	1 30 2023 20:45:45	0	0	0	752	2	-	Yes

36 31 Unknown 1284318 1 x

		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 20:50:39	0	0	0	752	2	-	Yes
	2	1 30 2023 20:55:16	0	0	0	752	2	-	Yes
	3	1 30 2023 20:59:17	0	0	0	752	2	-	Yes
	4	1 30 2023 21:03:19	0	0	0	752	2	-	Yes

37	32	Unknown	1284319	1 x

		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 21:08:11	0	0	0	752	2	-	Yes
	2	1 30 2023 21:12:49	0	0	0	752	2	-	Yes
	3	1 30 2023 21:16:50	0	0	0	752	2	-	Yes
	4	1 30 2023 21:20:52	0	0	0	752	2	-	Yes

38	33	Unknown	1284320	1 x

		TC	**ZERO !**	**67341**		**8.57**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 21:25:45	ZERO !	70683	1	752	2	-	Yes
	2	1 30 2023 21:28:32	ZERO !	65669	1	751	2	-	Yes
	3	1 30 2023 21:30:39	ZERO !	73006	1	751	2	-	Yes
	4	1 30 2023 21:32:45	ZERO !	60007	1	751	2	-	Yes

39	34	Unknown	1284321	1 x

		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 21:36:54	0	0	0	752	2	-	Yes
	2	1 30 2023 21:41:32	0	0	0	752	2	-	Yes
	3	1 30 2023 21:45:33	0.05	102660	1	752	2	-	-
	4	1 30 2023 21:47:39	0	0	0	751	2	-	Yes
	5	1 30 2023 21:51:41	0	0	0	752	2	-	Yes

40	S2	Unknown	CCV	1 x

		TC	**45.07**	**6084438**		**0.93**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 21:56:35	44.90	6061129	1	752	2	-	Yes
	2	1 30 2023 22:00:29	44.65	6028803	1	752	2	-	Yes
	3	1 30 2023 22:03:28	45.08	6086078	1	752	2	-	Yes
	4	1 30 2023 22:06:29	45.65	6161743	1	752	2	-	Yes

41	35	Unknown	CCB	1 x

		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 22:10:24	0	0	0	752	2	-	Yes
	2	1 30 2023 22:15:02	0	0	0	752	2	-	Yes
	3	1 30 2023 22:19:04	0	0	0	752	2	-	Yes
	4	1 30 2023 22:23:06	0	0	0	752	2	-	Yes

42	36	Unknown	1284322	1 x

		TC	**ZERO !**	**32952**		**115.47**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 22:28:00	ZERO !	65875	1	752	2	-	Yes
	2	1 30 2023 22:31:05	0	0	0	751	2	-	Yes
	3	1 30 2023 22:35:06	ZERO !	65933	1	752	2	-	Yes
	4	1 30 2023 22:37:21	0	0	0	751	2	-	Yes
	5	1 30 2023 22:41:23	0	0	0	752	2	-	-

43	37	Unknown	1284323	1 x

		TC	**ZERO !**	**92900**		**7.64**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	1 30 2023 22:46:18	ZERO !	94731	1	752	2	-	Yes
	2	1 30 2023 22:49:10	ZERO !	82461	1	752	2	-	Yes
	3	1 30 2023 22:51:19	0.00	96302	1	751	2	-	Yes

4	1 30 2023 22:53:29	0.02	98107	1	751	2	-	Yes

---

44 38 Unknown 1284324 1 x

TC	ZERO !	72563	18.03	100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 22:57:27	ZERO !	79366	1	752	2	-	Yes
2	1 30 2023 23:00:20	ZERO !	74752	1	751	2	-	Yes
3	1 30 2023 23:02:30	ZERO !	53540	1	751	2	-	Yes
4	1 30 2023 23:04:39	ZERO !	82596	1	751	2	-	Yes
5	1 30 2023 23:06:46	0	0	0	751	2	-	-

---

45 39 Unknown DUP1284324 1 x

TC	ZERO !	76372	17.04	100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 23:11:40	ZERO !	57058	1	752	2	-	Yes
2	1 30 2023 23:14:29	ZERO !	84154	1	752	2	-	Yes
3	1 30 2023 23:16:34	ZERO !	84130	1	751	2	-	Yes
4	1 30 2023 23:18:42	ZERO !	80148	1	751	2	-	Yes
5	1 30 2023 23:20:48	0	0	0	751	2	-	-

---

46 40 Unknown MSW1284324 1 x

TC	46.46	6269235	1.02	100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 23:25:43	46.25	6240879	1	752	2	-	Yes
2	1 30 2023 23:29:14	45.89	6193852	1	751	2	-	Yes
3	1 30 2023 23:31:59	46.75	6307388	1	752	2	-	Yes
4	1 30 2023 23:34:51	46.96	6334822	1	752	2	-	Yes

---

47 41 Unknown MSDW1284324 1 x

TC	46.47	6270823	1.27	100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 23:38:28	46.20	6234775	1	752	2	-	Yes
2	1 30 2023 23:41:56	47.06	6348319	1	752	2	-	Yes
3	1 30 2023 23:44:47	45.76	6176220	1	751	2	-	Yes
4	1 30 2023 23:47:32	46.87	6323980	1	751	2	-	Yes

---

48 S2 Unknown CCV 1 x

TC	45.41	6129135	0.77	100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 30 2023 23:51:08	45.05	6081002	1	752	2	-	Yes
2	1 30 2023 23:54:48	45.21	6102491	1	751	2	-	Yes
3	1 30 2023 23:57:47	45.85	6187905	1	751	2	-	Yes
4	1 31 2023 0:00:52	45.53	6145142	1	752	2	-	Yes

---

49 42 Unknown CCB 1 x

TC	0.00	0	0.00	100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	1 31 2023 0:04:45	0	0	0	752	2	-	Yes
2	1 31 2023 0:09:22	0	0	0	752	2	-	Yes
3	1 31 2023 0:13:23	0	0	0	752	2	-	Yes
4	1 31 2023 0:17:24	0	0	0	752	2	-	Yes

INORGANICS
LOGBOOK
DOCUMENTS

WCOD QSM Analytical Run
269036 on 2/8/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175116	1284325		1/27/2023	15:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	COD QSM		GW	4	
		49IDW								128538			
	1286262								COD QSM				
					MBW					128538			
	1286263								COD QSM				
					LCSW					128538			
	1286264		1/27/2023	15:50					COD QSM				
		49IDW			DUP	1284325				128538			
	1286265		1/27/2023	15:50					COD QSM				
		49IDW			MSW	1284325				128538			
	1286266		1/27/2023	15:50					COD QSM				
		49IDW			MSDW	1286265				128538			
	1287264								WCOD QSM				
					ICV								
	1287265								WCOD QSM				
					ICB								
	1287266								WCOD QSM				
					CCV								
	1287267								WCOD QSM				
					CCB								
	1287268								WCOD QSM				
					CCV								
	1287269								WCOD QSM				
					CCB								

12 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD040.tmp

PrepWrkSht2
on 2/7/2023

Prep Batch: 128538 36

Date Prepped: 2-7-23

Prepped By:

Date Entered:

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1286262 33	MBW	0	COD QSM			LIQUID				
	1286263 32	LCSW	0	COD QSM			LIQUID				
175116	1284325 26,27,28,29			COD QSM	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	1/27/23	15:50	2/9/23	4
	1286264	DUP	1284325	COD QSM		49IDW	GROUND WATER	1/27/23	15:50		
	1286265	MSW	1284325	COD QSM		49IDW	GROUND WATER	1/27/23	15:50		
	1286266	MSDW	1286265	COD QSM		49IDW	GROUND WATER	1/27/23	15:50		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA297.tmp

COD Data Validation Checklist

		Method: Chemical Oxygen Demand EPA 410.4			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
269036	02/07/2023	ATJ	HLB	02/08/2023	Yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Does a digestion sheet accompany the data package?	---	Yes		Yes		
2. Does the digestion sheet include all reagent and standard prep log numbers?	---	Yes		Yes		
3. Was a passing calibration test applied to sample analysis?	≥0.995	Yes		Yes		
4. Was a passing ICV analyzed immediately after the calibration?	90-110%	Yes		Yes		
5. Was a passing ICB analyzed immediately after the ICV?	< |LOD|or client/project specific	Yes		Yes		
6. Were CCVs and CCB analyzed at the required frequency?	1 per 10 samples	Yes		Yes		
7. Did analyzed CCVs meet the required acceptance criteria?	90-110%	Yes		Yes		
8. Did analyzed CCBs meet the acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
9. Was a Method Blank prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
10. Was the method blank within acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
11. Was an LCS prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
12. Did the LCS meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		
13. Was an MS and MSD prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
14. Did the MS/ MSD's meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits		No		No	1284325 MSW/MSDW failed high, M flagged

15. Did the MS/MSD's meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
16. Was a Duplicate prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
17. Did the Duplicate meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
18. Were the samples digested within hold time?	28 days	Yes		Yes		
19. Was the max temperature(s) for reactor(s) documented?	---	Yes		Yes		
20. Was the method specifed temperature reached?		Yes		Yes		
21. Were reagents/standards used before expiration date?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		

CHEMICAL OXYGEN DEMAND REAGENT LOG

Prep Batch(es): 128538
Date/Time/Analyst: 02/07/2023 10:30:00 ATJ
Run(s): 269036
Date/Time/Analyst: 02-07-2023 13:41 ATJ

Reagents:	W #	Exp Date
ICAL Preparation	54109	04/24/2023
CCV Preparation	54110	04/24/2023
LCS/ICV Preparation	54111	04/24/2023
Silver Sulfate Acid	53466	09/21/2023
Potassium Dichromate Dig Solution	52963	07/07/2023

Spiked Samples:	W #	Exp Date
Spiking Solution	54108	04/24/2023
Concentration 2000 mg/L		
Volume of Spike Used 0.2 mL		
Final Sample Volume 2.5 mL		
Final Spike Concentration 148.2 mg/L		

Date: 02/07/2023
Time: 10:30

COD DIGESTION BLOCK TEMPS

	A	B
Temperature (Max) 150°C ± 2°C:		

	E	D
Temperature (Max) 150°C ± 2°C:	151.7	

GENESYS 30 Instrument Run Logbook

Date	Start Time	End Time	Analyst	Test/Analyte	Calibration Test #	Run #/ Comments
02/07/23	13:36	14:10	ATJ	COD	CODW54109	269035 036 074

WANIONS IC QSM 5.0 Anion Run
268838 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284714							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			ICB							
		Chloride			ICB							
		Sulfate			ICB							
	1284713							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			ICV							
		Chloride			ICV							
		Sulfate			ICV							
	1284696							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1284697							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB				0			
		Chloride			CCB				0			
		Sulfate			CCB				0			
175065	1283673		1/24/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Chloride										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268838 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175065	1283674		1/24/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Chloride										
		Nitrate Nitrogen										
175065	1283675		1/24/2023	13:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Chloride										
		Sulfate										
175065	1283676		1/24/2023	14:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Chloride										
		Nitrate Nitrogen										
175065	1283670		1/24/2023	09:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride			*							
		Sulfate			*							
		Nitrate Nitrogen			*							
175065	1283671		1/24/2023	10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268838 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175065	1283672		1/24/2023	11:50			WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride											
		Sulfate											
		Nitrate Nitrogen											
	1284698		1/24/2023	09:40					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1283670				0			
		Chloride			DUP	1283670				0			
		Sulfate			DUP	1283670				0			
	1284699		1/24/2023	09:40					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSW	1283670				0			
		Chloride			MSW	1283670				0			
		Sulfate			MSW	1283670				0			
	1284700		1/24/2023	09:40					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSDW	1284699				0			
		Chloride			MSDW	1284699				0			
		Sulfate			MSDW	1284699				0			
	1284701								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV					0			
		Chloride			CCV					0			
		Sulfate			CCV					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268838 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284702								WANIONS IC QSM 5.0				
		Chloride			LCSW					0			
		Nitrate Nitrogen			LCSW					0			
		Sulfate			LCSW					0			
	1284703								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			MBW					0			
		Chloride			MBW					0			
		Sulfate			MBW					0			
175065	1283670		1/24/2023	09:40			WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride		***RERUN***	*								
		Nitrate Nitrogen		***RERUN***	*								
		Sulfate		***RERUN***	*								
	1284698		1/24/2023	09:40					ANIONS IC QSM 5.0				
		Sulfate		***RERUN***	DUP	1283670				0			
		Chloride		***RERUN***	DUP	1283670				0			
		Nitrate Nitrogen		***RERUN***	DUP	1283670				0			
	1284699		1/24/2023	09:40					ANIONS IC QSM 5.0				
		Nitrate Nitrogen		***RERUN***	MSW	1283670				0			
		Sulfate		***RERUN***	MSW	1283670				0			
		Chloride		***RERUN***	MSW	1283670				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268838 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284700		1/24/2023 09:40				ANIONS IC QSM 5.0				
		Sulfate	***RERUN***	MSDW 1284699				0			
		Chloride	***RERUN***	MSDW 1284699				0			
		Nitrate Nitrogen	***RERUN***	MSDW 1284699				0			
175065	1283672		1/24/2023 11:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Sulfate	***RERUN***								
	1284707						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1284708						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1284711						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268838 on 2/3/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284712						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
175065	1283671		1/24/2023 10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
	1284715						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1284716						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

87

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC37-01 Data Review Checklist

		Method: Anions by Ion Chromatography 300.0/9056		Independent Data Review Checklist		Instrument: DX120-System 2
LIMS Run #(s)	**Analysis Date**		**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes/No)**
268838 268843 268844 268845	01/26/2023		TMG	RLD	01/30/2023	Yes

Instructions: Complete one checklist per *analytical sequence*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
		Yes	**No**	**Yes**	**No**	**(Indicate reference to an attachment if necessary)**
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos. and unpreserved NO_2 and NO_3		No		No	Affected sample results were "H" flagged
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments: _____

WANIONS IC QSM 5.0 Anion Run
268868 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285595							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1285596							WANIONS IC QSM 5.0				
		Chloride			LCSW				0			
		Nitrate Nitrogen			LCSW				0			
		Sulfate			LCSW				0			
	1285597							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			MBW				0			
		Chloride			MBW				0			
		Sulfate			MBW				0			
175102	1283979		1/26/2023	11:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Sulfate										
		Chloride										
175102	1283980		1/26/2023	12:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268868 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175102	1283980		1/26/2023 12:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Chloride	***RERUN***								
	1285598		1/26/2023 11:10				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		DUP	1283979			0			
		Chloride		DUP	1283979			0			
		Sulfate		DUP	1283979			0			
	1285599		1/26/2023 11:10				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW	1283979			0			
		Chloride		MSW	1283979			0			
		Sulfate		MSW	1283979			0			
	1285600		1/26/2023 11:10				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW	1285599			0			
		Chloride		MSDW	1285599			0			
		Sulfate		MSDW	1285599			0			
	1285601						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268868 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285642						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB							
		Chloride		CCB							
		Sulfate		CCB							

33

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC37-01 Data Review Checklist

		Method: Anions by Ion Chromatography 300.0/9056		Independent Data Review Checklist		Instrument: DX120-System 2
LIMS Run #(s)	**Analysis Date**		**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes/No)**
268868 268869	01/27/2023		TMG	RLD	02/01/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
		Yes	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

WANIONS IC QSM 5.0 Anion Run
268885 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284751							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1284752							WANIONS IC QSM 5.0				
		Chloride			LCSW				0			
		Nitrate Nitrogen			LCSW				0			
		Sulfate			LCSW				0			
	1284753							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			MBW				0			
		Chloride			MBW				0			
		Sulfate			MBW				0			
175116	1284317		1/27/2023	08:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
175116	1284318		1/27/2023	09:16		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Nitrate Nitrogen										
		Chloride										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268885 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175116	1284319		1/27/2023	10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
175116	1284320		1/27/2023	11:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Nitrate Nitrogen										
		Chloride										
175116	1284321		1/27/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Chloride										
		Nitrate Nitrogen										
175116	1284322		1/27/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
175116	1284323		1/27/2023	14:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Sulfate										
		Chloride										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268885 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175116	1284324		1/27/2023 15:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Sulfate									
		Nitrate Nitrogen									
	1284754						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1284755						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
175116	1284321		1/27/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen	***RERUN***								
		Chloride	***RERUN***								
		Sulfate	***RERUN***								
175116	1284322		1/27/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268885 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175116	1284324		1/27/2023 15:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen	***RERUN***								
		Sulfate	***RERUN***								
		Chloride	***RERUN***								
	1284756		1/27/2023 08:30				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		DUP	1284317			0			
		Chloride		DUP	1284317			0			
		Sulfate		DUP	1284317			0			
	1284757		1/27/2023 08:30				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW	1284317			0			
		Chloride		MSW	1284317			0			
		Sulfate		MSW	1284317			0			
	1284758		1/27/2023 08:30				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW	1284757			0			
		Chloride		MSDW	1284757			0			
		Sulfate		MSDW	1284757			0			
	1284759						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
268885 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1284760						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

63

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC37-01 Data Review Checklist

		Method: Anions by Ion Chromatography 300.0/9056		Independent Data Review Checklist		Instrument: DX120-System 2
LIMS Run #(s)	**Analysis Date**		**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes/No)**
268885	01/28/2023		TMG	RLD	01/31/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
		Yes	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits	Yes		Yes		
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Dionex Run Log - System 2

Start Date	Start Time	End Date	End Time	Analyst	Data Run #(s)	Calibration File	Peak File	ICC File	ICS File	Spike ID's	Temp Cond.	Pressure (psi)	Flow (mL/min)	Comments
01/06/23	10:37	01/09/23	10:52	TMG	268399 268400	IC4429	010623 -	IC4503 IC4506	IC4504 IC4507	IC4505 IC4508	18.6	1988	0.88	IC4458
01/09/23	13.38	01/10/23	11:07	TMG	268422 268427 268428 268429	IC4429	010923 -	IC4503 IC4509	IC4504 IC4510	IC4505 IC4511	18.7	2002	0.88	IC4458
01/10/23	12:30	01/11/23	11:49	TMG	268499 268450	IC4429	011023 -	IC4503 IC4509	IC4504 IC4510	IC4505 IC4511	18.6	1995	0.88	IC4458
01/11/23	14:50	01/12/23	10:42	TMG	268479	IC4429	011123 -	IC4503 IC4509	IC4504 IC4510	IC4505 IC4511	18.5	2010	0.9	IC4458
01/12/23	13:44	01/13/23	13:49	TMG	268508	IC4429	011223 -	IC4512 IC4515	IC4513 IC4516	IC4514 IC4517	18.6	2031	0.91	IC4458
01/16/23	13:29	01/17/23	16:55	TMG	268555 268556 268568	IC4429	011623 -	IC4512 IC4518	IC4513 IC4519	IC4514 IC4520	19	2075	0.9	IC4458
01/18/23	12:08	01/18/23	16:39	TMG	268620	IC4429	011823 -	IC4512 IC4521	IC4513 IC4522	IC4514 IC4523	18.5	2002	0.9	IC4458
01/19/23	12:32	01/23/23	12:59	TMG	268644 268645	IC4429	011923 -	IC4524 IC4527	IC4525 IC4528	IC4526 IC4529	18.9	2005	0.89	IC4458
01/20/23	12:04	01/20/23	22:10	TMG	268666	IC4429	012023 -	IC4524 IC4527	IC4525 IC4528	IC4526 IC4529	18.7	2001	0.89	IC4458
01/23/23	14:58	01/24/23	18:04	TMG	268711 268741 268752	IC4429	012323 -	IC4524 IC4527	IC4525 IC4528	IC4526 IC4529	18.6	2002	0.89	IC4458
01/25/23	13:47	01/25/23	17:50	TMG	268697	IC4429	012523 -	IC4536 IC4539	IC4537 IC4540 IC4532	IC4538 IC4541 IC4532	18.5	1991	0.91	IC4458
01/26/23	12:39	01/27/23	11:14	TMG	268838 268843 268844 268845	IC4429	012623 -	IC4536 IC4539	IC4537 IC4540	IC4538 IC4541	18.5	1990	0.91	IC4458
01/27/23	12:05	01/30/23	12:06	TMG	268868 268869	IC4429	012723 -	IC4536 IC4539	IC4537 IC4540	IC4538 IC4541	18.6	1995	0.91	IC4458
01/28/23	13:44	01/28/23	22:08	TMG	268885	IC4429	012823 -	IC4536 IC4539	IC4537 IC4540	IC4538 IC4541	18.7	1991	0.91	IC4458
02/01/23				TMG	MDL	IC4429	020123 -	IC4536 IC4539	IC4537 IC4540	IC4538 IC4541	18.6	2002	0.91	IC4458
														IC4542

WPH Analytical Run
268915 on 1/31/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175116	1284325		1/27/2023	15:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	PH		GW	**4**	
		49IDW											
	1285112		1/27/2023	15:50					PH				
		49IDW			DUP	1284325				0			

2 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

pH Data Validation Checklist

		Method: pH EPA 150.1, SM 4500-H+B, EPA 9040C, EPA 9045D			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
268915	01/30/2023	SJP	HLB	01/31/2023	Yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Was the calibration slope recorded on the bench sheet?	95-110%	Yes		Yes		
2. Were reagents/standards used before expiration date?	---	Yes		Yes		
3. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	Yes		Yes		
4. Were the duplicates within acceptable limits?	Differ by $\leq$ 0.10 pH units	Yes		Yes		
5. Are all samples on the job lists accounted for?	---	Yes		Yes		
6. Were SM 4500-H+B samples bracketed by calibration buffer 7?	Every 10 samples, Differ by $\leq$ 0.10 pH units	Yes		Yes		

Mettler Toledo (Easy Seven) Instrument Run Logbook					
Date	Start Time	End Time	Analyst	Analyte	Lims Run #(s)
01/30/23	15:00	15:25	SJP	PH	268914, 915, 916

Mettler Toledo (Easy Seven) pH Calibration & Maintenance Run Logb

		pH Buffer Reference ID #			3 Point Calibration				
Date	Analyst	pH 7	pH 4	pH 10	1st Buffer	2nd Buffer	3rd Buffer	Slope (95-110%)	Temp ° C
01/30/23	SJP	WC550 EX: 12/01/2023	WC507 EX: 08/29/2023	WC453 EX: 01/31/2024	7.02	4	10.07	96%	18.8

WORGANIC CARBON QSM 5.0 Analytical Run
268891 on 2/6/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285557								WORGANIC CARBON QSM 5.0				
					ICV								
	1285558								WORGANIC CARBON QSM 5.0				
					ICB								
	1285119								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1285120								WORGANIC CARBON QSM 5.0				
					LCSW					0			
	1285121								WORGANIC CARBON QSM 5.0				
					MBW					0			
		54MW10											
175065	1283670		1/24/2023	09:40			WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW5			Designated MS/MSD								
	1285122		1/24/2023	09:40					ORGAN CARBON T QSM 5.0				
		13MW5			DUP	1283670				0			
	1285123								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1285124								WORGANIC CARBON QSM 5.0				
					CCB					0			
	1285125		1/24/2023	09:40					ORGAN CARBON T QSM 5.0				
		13MW5			MSW	1283670				0			
	1285126		1/24/2023	09:40					ORGAN CARBON T QSM 5.0				
		13MW5			MSDW	1285125				0			
175065	1283671		1/24/2023	10:40			WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW4											
175065	1283672		1/24/2023	11:50			WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW3											
175065	1283673		1/24/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW04											

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: WetChem C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp3558.tmp Page 1 of 1

WORGANIC CARBON QSM 5.0 Analytical Run
268891 on 2/6/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
175065	1283674		1/24/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49TW04										
175065	1283675		1/24/2023	13:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW2										
175065	1283676		1/24/2023	14:50		WESTON SOLUTIONS, INC.	RADFORD AAP SMWU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW05										

WORGANIC CARBON QSM 5.0 Analytical Run
268893 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285157								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1285158								WORGANIC CARBON QSM 5.0				
					LCSW					0			
	1285159								WORGANIC CARBON QSM 5.0				
					MBW					0			
175116	1284317		1/27/2023	08:30			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW1											
175116	1284318		1/27/2023	09:16			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW1-EQB											
175116	1284319		1/27/2023	10:20			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW03											
175116	1284320		1/27/2023	11:40			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW2											
175116	1284321		1/27/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW3											
	1285160								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1285161								WORGANIC CARBON QSM 5.0				
					CCB					0			
175116	1284322		1/27/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48TW3											
175116	1284323		1/27/2023	14:10			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW01											
175116	1284324		1/27/2023	15:10			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		50MW2											
	1285162		1/27/2023	15:10					ORGAN CARBON T QSM 5.0				
		50MW2			DUP	1284324				0			
	1285163		1/27/2023	15:10					ORGAN CARBON T QSM 5.0				
		50MW2			MSW	1284324				0			
	1285164		1/27/2023	15:10					ORGAN CARBON T QSM 5.0				
		50MW2			MSDW	1285163				0			
	1285165								WORGANIC CARBON QSM 5.0				
					CCV					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpB4B1.tmp

WORGANIC CARBON QSM 5.0 Analytical Run
268893 on 2/15/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1285166						WORGANIC CARBON QSM 5.0				
				CCB				0			

18 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
268891 268892 268893 268894	01/30/2023	TMG	RLD	02/06/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	Yes		Yes		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	Yes		Yes		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	Yes		Yes		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

TOC Instrument Run Logbook

Start Date	Start Time	End Date	End Time	Analyst	LIMs Run #	Matrix (S or W)	Calibration ID #	COMMENTS
1/11/2023	8:54	1/11/2023	12:39	TMG	268438R, 268465	~~0590~~ W TMG 1/11/2023	0590	
1/12/2023	9:22	1/12/2023	10:26	TMG	TOC0646	S	0646	
01/13/2023	11:44	01/13/2023	17:33	TMG	268536	W	0590	
1/17/2023	10:01	1/17/2023	12:57	TMG	268573	S	0646	
1/19/2023	9:21	1/19/2023	12:41	TMG	268639	W	0590	
1/27/2023	8:35	1/27/2023	11:14	TMG	268835	W	0590	
1/30/2023	11:48	1/31/2023	0:17	TMG	268891, 268892 268893, 268894	W	0590	
2/8/2023	10:18	2/8/2023	14:02	TMG	269094	S	0646	
2/9/2023	9:22	2/9/2023	9:58	TMG	269094RR	S	0646	
2/13/2023	8:31	2/13/2023	13:14	TMG	269214	W	0637	CCV1

Reviewed By:_____

CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: O. McMillen, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 175065
Company: WESTON SOLUTIONS, INC
Project: RADFORD AAP SMWU 49
Logged By: erc PM: BMS

n:
RCRA SDWA NPDES
aste Other _____

Report To: Tony Pace
EMAIL: pacea@Westonsolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice os per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2023 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																	
1/24	0000	GW	G		TB-1	N	2												Trip Blank		2		1283669
1/24	0940	GW	G		13MW5	N	9	6	3	3											21	✓	70
1/24	1040	GW	G		13MW4	N	3	2	1	1											7		71
1/24	1150	GW	G		13MW3	N	2	2	1	1											6		72
1/24	1255	GW	G		49MW04	N	3	2	1	1											7		73
1/24	1255	GW	G		49TW04	N	3	2	1	1											7		74
1/24	1350	GW	G		13MW2	N	3	2	1	1											7		75
1/24	1450	GW	G		49MW05	N	3	2	1	1											7		76

Relinquished by: [signature] Date/Time 1/24/2023 1800
Received by: Date/Time

Received By: Fedex Date/Time 1/24/2023 1800
Received for Laboratory by: [signature] Date/Time 1/26/23 1055
[signature] 1/27/23 1114

Lab Use Only
Ice Present (Yes) No
Temp 3.4 IR Gun 27
Cooler # 6226

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 3.4

Actual Temperature _____

IR Gun # 27

Initials fr

Date 1/25/23 Time 1055

Cooler #: 6726

ORIGIN ID:WALA (770) 855-6275
PAUL I TAYLOR
WESTON SOLUTIONS INC/OU 1203
380 ARBOR DR
CHRISTIANSBURG, VA 24073
UNITED STATES US

SHIP DATE: 24JAN23
ACTWGT: 46.90 LB
CAD: 6885155/SSFE2341
DIMS: 24x13x13 IN
BILL THIRD PARTY

TO CT LAB
CT LAB
1230 LANGE CT

BARABOO WI 53913
(608) 356-2760
REF: 03886.552.500.2410 (SWMU 49)
DEPT:

FedEx Express

TRK# 0201 3938 2435 3739

WED - 25 JAN 10:30A
PRIORITY OVERNIGHT
AHS
53913
WI-US MSN

XN LNRA

CUSTODY SEAL
DATE 1/24/2023
SIGNATURE

QEC Quality Environmental Containers 800-255-3950 • www.qecusa.com

CUSTODY SEAL
DATE 1/24/2023
SIGNATURE

QEC Quality Environmental Containers 800-255-3950 • www.qecusa.com

PM Login Confirmation

Folder #: 175065

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SMWU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 175746

Project Manager: *BMS* **Date Received:** 01/26/23 **Log Date:** 01/26/2023

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 3.4 oC

SAMPLE #: 1283669 **DESCR:** TB-1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 1/24/2023 **Time:** 00:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	2/7/2023	2/7/2023		Logged

SAMPLE #: 1283670 **DESCR:** 13MW5 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 09:40

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y* ***DESIGNATED MATRIX SPIKE***	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)			***DESIGNATED MATRIX SPIKE***	2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)			***DESIGNATED MATRIX SPIKE***	1/26/2023	2/7/2023		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpBBB6.tmp

Folder #: 175065 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SMWU 49

SAMPLE #: 1283670 **DESCR:** 13MW5 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 09:40

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)			***DESIGNATED MATRIX SPIKE***	2/21/2023	2/7/2023		Logged

SAMPLE #: 1283671 **DESCR:** 13MW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 10:40

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/26/2023	2/7/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/21/2023	2/7/2023		Logged

SAMPLE #: 1283672 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 11:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/26/2023	2/7/2023		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpBBB6.tmp

Folder #: 175065 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SMWU 49

SAMPLE #: 1283672 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 11:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/21/2023	2/7/2023		Logged

SAMPLE #: 1283673 **DESCR:** 49MW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/26/2023	2/7/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/21/2023	2/7/2023		Logged

SAMPLE #: 1283674 **DESCR:** 49TW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/26/2023	2/7/2023		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpBBB6.tmp

Folder #: 175065 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SMWU 49

SAMPLE #: 1283674 **DESCR:** 49TW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/21/2023	2/7/2023		Logged

SAMPLE #: 1283675 **DESCR:** 13MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 13:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/26/2023	2/7/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/21/2023	2/7/2023		Logged

SAMPLE #: 1283676 **DESCR:** 49MW05 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 14:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	2/7/2023	2/7/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				2/7/2023	2/7/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpBBB6.tmp

Folder #: 175065 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SMWU 49

SAMPLE #: 1283676 **DESCR:** 49MW05 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/24/2023 **Time:** 14:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/26/2023	2/7/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/21/2023	2/7/2023		Logged

Invoice Number: 175746 **Preliminary Invoice Estimate:** $1,608.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	9	$12.00	0.00	$108.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	9	$12.00	0.00	$108.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	9	$12.00	0.00	$108.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	9	$16.00	0.00	$144.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	9	$16.00	0.00	$144.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	9	$16.00	0.00	$144.00
ORGAN CARBON T QSM 5.0	GROUND WATER	9	$28.00	0.00	$252.00
VOC 8260 QSM 5.0	GROUND WATER	9	$60.00	0.00	$540.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**9**	TOC
UNPRES PL	**9**	Anions
VOA HCL	**46**	VOC

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpBBB6.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	175065	Print Date / Time:	01/26/2023	11:07	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	01/26/2023	10:55	erc
Project Name:	RADFORD AAP SMWU 49	Log-In Date / Time / By:	01/26/2023	11:07	erc
Project Phase:	RADFORD, VA	Project #:			PM: BMS
Coolers:	6226	Temperature:	3.4 C		On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	3938 2435 3739		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

SEVERAL SAMPLES WERE RECEIVED PAST THE 48-HOUR HOLD TIME FOR NITRATE ANALYSIS DUE TO A FEDEX SHIPPING DELAY. THE CLIENT INSTRUCTED THE LAB TO PROCEED WITH THE ANALYSIS OF THESE SAMPLES.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 1/24/2023 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283669 TB-1				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283670 13MW5				
	UNPRES PL	1	/	Anions
	UNPRES PL	1 N	/ N	ANIONS
	UNPRES PL	1 N	/ N	ANIONS
	Total # of Containers of Type (*UNPRES PL*) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283670 13MW5				
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC
	VOA HCL	1 N	/ N	GAS,VOC

	VOA HCL	1	N	/	N	GAS,VOC
	VOA HCL	1	N	/	N	GAS,VOC
	Total # of Containers of Type	**(*VOA HCL*) = 15**				

1283670	13MW5					
	H2SO4 PL	1	Y	/	N	TOC
	H2SO4 PL	1	Y	/	N	TOC
	H2SO4 PL	1	Y	/	N	TOC
	Total # of Containers of Type	**(*H2SO4 PL*) = 3**				

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1283671	13MW4					
		UNPRES PL	1	/		Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**			
1283671	13MW4					
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**			
1283671	13MW4					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1283672	13MW3					
		UNPRES PL	1	/		Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**			
1283672	13MW3					
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 4**			
1283672	13MW3					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1283673	49MW04					
		UNPRES PL	1	/		Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**			
1283673	49MW04					
		VOA HCL	1	/		GAS,VOC
		VOA HCL	1	/		GAS,VOC

		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**		
1283673	49MW04					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283674	49TW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) =	**1**	
1283674	49TW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**	
1283674	49TW04				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283675	13MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) =	**1**	
1283675	13MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**	
1283675	13MW2				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283676	49MW05				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) =	**1**	
1283676	49MW05				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC

175065

VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC

Total # of Containers of Type (*VOA HCL*) = 5

1283676 49MW05

H2SO4 PL	1	Y	/	N	TOC

Total # of Containers of Type (*H2SO4 PL*) = 1

Condition Code *Condition Description*

1 Sample Received OK

175065

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757)819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: O. McMillan, P. Taylor

CT LAB
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 175102
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 49
Logged By: erc PM: BMS

n:
RCRA SDWA NPDES
/aste Other _____

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603
Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A – air M – misc/waste

2023 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						N	Fill in Spaces with Bottles per Test				
1/26	1110	GW	G		48MW7	N	1	1	2		1283979
1/26	1250	GW	G		48MW6	N	1	1	2		80

ANALYSES REQUESTED

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	1/26/2023 1800	Fedex	1/26/2023 1806
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			1777 957

Lab Use Only
Ice Present Yes No
Temp 1.9 IR Gun 27
Cooler # XXX

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 1.9

Actual Temperature _____

IR Gun # 27

Initials EC

Date 1/27/23 Time 954

Cooler #: XXX

CUSTODY SEAL
DATE 1/26/2023
SIGNATURE

QEC Quality Environmental Containers 800-255-3850 • www.qecusa.com

ORIGIN ID:WALA (770) 855-6275
PAUL TAYLOR
WESTON SOLUTIONS INC/CU 1203
380 ARBOR DR

CHRISTIANSBURG, VA 24073
UNITED STATES US

SHIP DATE: 26JAN23
ACTWGT: 12.75 LB
CAD: 6995155/SSFE2341
DIMS: 13x8x8 IN

BILL THIRD PARTY

TO CT LAB
CT LAB
1230 LANGE CT

BARABOO WI 53913
(608) 356-2760

REF: 03886.552.500.2410 (SHKU 54)
INV:
PO:
DEPT:

FedEx Express

FRI - 27 JAN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 3939 1430 4180

XN LNRA

AHS
53913
WI-US MSN

CUSTODY SEAL
DATE 1/26/23
SIGNATURE

QEC Quality Environmental Containers 800-255-3850 • www.qecusa.com

PM Login Confirmation

Folder #: 175102

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 175783

Project Manager: *BMS* **Date Received:** 01/27/23 **Log Date:** 01/27/2023

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 1.9 oC

SAMPLE #: 1283979 **DESCR:** 48MW7 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/26/2023 **Time:** 11:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/28/2023	2/8/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/23/2023	2/8/2023		Logged

SAMPLE #: 1283980 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/26/2023 **Time:** 12:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1227	ANIONS IC QSM 5.0	(EPA 9056A)				1/28/2023	2/8/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpEA7E.tmp

Folder #: 175102 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1283980 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/26/2023 **Time:** 12:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				2/23/2023	2/8/2023		Logged

Invoice Number: 175783 **Preliminary Invoice Estimate:** $128.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	2	$12.00	0.00	$24.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	2	$12.00	0.00	$24.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	2	$12.00	0.00	$24.00
ORGAN CARBON T QSM 5.0	GROUND WATER	2	$28.00	0.00	$56.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**2**	TOC
UNPRES PL	**2**	Anions

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpEA7E.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	175102	Print Date / Time:	01/27/2023 09:56
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	01/27/2023 09:54 erc
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	01/27/2023 09:56 erc
Project Phase:	RADFORD, VA	Project #:	PM: BMS
Coolers:	UNMARKED	Temperature:	1.9 C On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:? **Y**	Complete? **Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED
Ship Method:	FEDEX EXPRESS	Tracking Number:	3939 1430 4180
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 1/26/2023 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283979 48MW7				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1283979 48MW7				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1283980 48MW6				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1283980 48MW6				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: O. McMillen, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

PI Folder #: 175116
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 49
Logged By: ere PM: BMS

RCRA SDWA NPDES
Waste Other _____

Report To: Tony Pace
EMAIL: pacea@westonsolutions.com
Company: Weston Solutions
Address: 2 Eston St. Ste. 603 Hampton, VA 23669
Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M – misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2023 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	COD 410.4	pH 9040C	TAL Metals										Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																			
1/26	0000	GW	G		TB-2	N	2															Trip Blank		2		1284314
1/26	1110	GW	G		48MW7	N	3	2																5		15
1/26	1250	GW	G		48MW6	N	3	2																5		16
1/27	0830	GW	G		48MW1	N	3	2	1	1														7		17
1/27	0916	GW	G		48MW1-EQB	N	3	2	1	1														7		18
1/27	1020	GW	G		49MW03	N	3	2	1	1														7		19
1/27	1140	GW	G		48MW2	N	3	2	1	1														7		20
1/27	1255	GW	G		48MW3	N	3	2	1	1														7		21
1/27	1255	GW	G		48TW3	N	3	2	1	1														7		22
1/27	1410	GW	G		49MW01	N	3	2	1	1														7		23
1/27	1510	GW	G		50MW2	N	3	2	1	1														7		24
1/27	1550	GW	G		49IDW						1	1	1											3		25

Relinquished By: [signature] Date/Time 1/27/2023 1800
Received by: Date/Time

Received By: Fedex Date/Time 1/27/2023 1800
Received for Laboratory by: [signature] Date/Time 1/28/23 1129
[signature] 1/28/23 1150

Lab Use Only
Ice Present Yes No
Temp 22.3 IR Gun 27
Cooler # Smu

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 22

Actual Temperature _____

IR Gun # 27

Initials [illegible]

Date 1/28/23 Time 1129

Cooler #: 5444

ORIGIN ID:WALA (770) 855-6275
PAUL TAYLOR
WESTON SOLUTIONS INC/OU 1203
380 ARBOR DR

CHRISTIANSBURG, VA 24073
UNITED STATES US

SHIP DATE: 27JAN23
ACTWGT: 43.35 LB
CAD: 6995155/SSFE2341
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO

CT LABORATORIES
1230 LANGE COURT

BARABOO WI 53913

(608) 356-2760 REF: 03886.552.500.2410 (SHMU 49)
INV:
PO: DEPT:

FedEx Express

TRK# 0201 3939 5781 4409

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LNRA

53913
WI-US MSN

CUSTODY SEAL
DATE 1/27/2023
SIGNATURE [illegible]

QEC Quality Environmental Containers 800-356-3950 • www.qecusa.com

CUSTODY SEAL
DATE 1/27/2023
SIGNATURE [illegible]

QEC Quality Environmental Containers 800-356-3950 • www.qecusa.com

PM Login Confirmation

Folder #: 175116

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 175797

Project Manager: *BMS* **Date Received:** 01/28/23 **Log Date:** 01/28/2023

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 2.2 oC

SAMPLE #: 1284314 **DESCR:** TB-2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 1/26/2023 **Time:** 00:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	2/9/2023	2/9/2023		Logged

SAMPLE #: 1284315 **DESCR:** 48MW7 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/26/2023 **Time:** 11:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Folder #: 175116 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1284316 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/26/2023 **Time:** 12:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						

SAMPLE #: 1284317 **DESCR:** 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 08:30

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284318 **DESCR:** 48MW1-EQB **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 09:16

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Folder #: 175116 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1284318 **DESCR:** 48MW1-EQB **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 09:16

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284319 **DESCR:** 49MW03 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 10:20

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284320 **DESCR:** 48MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 11:40

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Folder #: 175116 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1284320 **DESCR:** 48MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 11:40

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284321 **DESCR:** 48MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284322 **DESCR:** 48TW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Folder #: 175116 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1284322 **DESCR:** 48TW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284323 **DESCR:** 49MW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 14:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284324 **DESCR:** 50MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 15:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		2/9/2023		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Folder #: 175116 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1284324 **DESCR:** 50MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 15:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)					2/9/2023		Logged
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)					2/9/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)					2/9/2023		Logged

SAMPLE #: 1284325 **DESCR:** 49IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 15:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9040C)					2/9/2023		Logged
989	COD QSM	(EPA 410.4)				2/24/2023	2/9/2023		NeedPrep
1183	ICP K TOTAL QSM 5.0	(EPA 6010C)				7/26/2023	2/9/2023		NeedPrep
1190	ICP NA TOTAL QSM 5.0	(EPA 6010C)				7/26/2023	2/9/2023		NeedPrep
1200	ICP TOTAL QSM 5.0	(EPA 6010C)				7/26/2023	2/9/2023		NeedPrep
			Total Aluminum						
			Total Antimony						
			Total Arsenic						
			Total Barium						
			Total Beryllium						
			Total Cadmium						
			Total Calcium						
			Total Chromium						
			Total Cobalt						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Folder #: 175116 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1284325 **DESCR:** 49IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 1/27/2023 **Time:** 15:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Total Copper						
			Total Iron						
			Total Lead						
			Total Magnesium						
			Total Manganese						
			Total Nickel						
			Total Selenium						
			Total Silver						
			Total Thallium						
			Total Vanadium						
			Total Zinc						
1208	MERCURY TOTAL QSM 5.0	(EPA 7470A)				2/24/2023	2/9/2023		NeedPrep

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

Invoice Number: 175797 **Preliminary Invoice Estimate:** $1,780.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	8	$12.00	0.00	$96.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	8	$12.00	0.00	$96.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	8	$12.00	0.00	$96.00
COD QSM	GROUND WATER	1	$18.00	0.00	$18.00
ICP K TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP NA TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Aluminum	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Antimony	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Arsenic	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Barium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Beryllium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cadmium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Calcium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Chromium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cobalt	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Copper	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Iron	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Lead	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Magnesium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Manganese	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Nickel	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Selenium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Silver	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Thallium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Vanadium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Zinc	GROUND WATER	1	$3.50	0.00	$3.50
MERCURY TOTAL QSM 5.0	GROUND WATER	1	$23.00	0.00	$23.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	10	$16.00	0.00	$160.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	10	$16.00	0.00	$160.00

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpA3CD.tmp

METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	10	$16.00	0.00	$160.00
ORGAN CARBON T QSM 5.0	GROUND WATER	8	$28.00	0.00	$224.00
PH	GROUND WATER	1	$10.00	0.00	$10.00
VOC 8260 QSM 5.0	GROUND WATER	10	$60.00	0.00	$600.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**9**	COD
HNO3	**1**	HG,ICP,K,NA
UNPRES PL	**9**	Anions
VOA HCL	**52**	GAS,VOC

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	175116	Print Date / Time:	01/28/2023	11:44	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	01/28/2023	11:29	erc
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	01/28/2023	11:44	erc
Project Phase:	RADFORD, VA	Project #:			PM: BMS
Coolers:	5444	Temperature:	2.2 C		On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	3939 5781 4409		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 1/27/2023 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1284314 TB-2				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1284315 48MW7				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1284316 48MW6				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1284317 48MW1				
	UNPRES PL	1	/	Anions

Total # of Containers of Type (*UNPRES PL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1284317 48MW1				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1284317 48MW1				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1284318 48MW1-EQB				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1284318 48MW1-EQB				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1284318 48MW1-EQB				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1284319 49MW03				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1284319 49MW03				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1284319 49MW03				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1284320 48MW2				
	UNPRES PL	1	/	Anions

175116

Total # of Containers of Type (*UNPRES PL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1284320 48MW2				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1284320 48MW2				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1284321 48MW3				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1284321 48MW3				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1284321 48MW3				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1284322 48TW3				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1284322 48TW3				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1284322 48TW3				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1284323 49MW01				
	UNPRES PL	1	/	Anions

175116

		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**		
1284323	49MW01					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1284323	49MW01					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1284324	50MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1284324	50MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1284324	50MW2				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1284325	49IDW				
		H2SO4 PL	1	Y / N	COD
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	
1284325	49IDW				
		HNO3	1	Y / N	HG,ICP,K,NA
		Total # of Containers of Type	**(*HNO3*) =**	**1**	
1284325	49IDW				
		UNPRES PL	1	/	pH
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	

Condition Code *Condition Description*

1 Sample Received OK

175116

CT LABORATORIES

delivering more than data from your environmental analyses

ANALYTICAL RESULTS FOR:

ANTHONY PACE
WESTON SOLUTIONS, INC.
2 EATON STREET
SUITE 603
HAMPTON, VA 23669

PROJECT SITE:	RFAAP SWMU-49; RADFORD, VA
DOD CONTRACT #:	
PROJECT #:	
SDG:	***178914***
FOLDERS:	178914, 178962, 179025, 179047
PREPARED:	August 8, 2023
TOTAL # OF PAGES:	1572

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: Brett Szymanski
PROJECT MANAGER

Certifications: IL (NELAP 200073), KS (NELAP E-10368), WI (157066030), DOD ELAP (A2LA 3806.01), VA (NELAP 460203), LA (primary NELAP 115843), ISO17025 (A2LA 3806.01)

CT LABORATORIES

delivering more than data from your environmental analyses

Table of Contents

Section	Page
Cover Page	1
Table of Contents	2
Case Narrative and Summary of Detects (if applicable)	3
Data Qualifier Sheet	7
Sample Delivery Group Summary	9
QC Batch Cross Reference	10
VOC QC Summary Documents	13
VOC Sample Data Documents	112
VOC ICAL Documents	226
VOC CCV Documents	319
VOC QC Documents	364
VOC Logbook Documents	385
Metals CLP Forms Documents	426
Metals Raw Data Documents	482
Metals Logbook Documents	746
Inorganic CLP Forms Documents	1224
Inorganic Raw Data Documents	1361
Inorganic Logbook Documents	1496
Chain of Custody, PM Confirmation and Sample Condition Forms	1538

CT LABORATORIES

delivering more than data from your environmental analyses

Case Narrative

Client: Weston Solutions
Project: RFAAP SWMU-49, Radford, VA
Sample Receipt Date(s): 07/12/2023, 07/13/2023, 07/14/2023, 07/15/2023
SDG #: *178914* (Folder #'s 178914, 178962, 179025, 179047)

Fifteen water samples were received and analyzed for a variety of parameters, including: VOCs, Dissolved Gases, Metals, pH, COD, Anions, and TOC. Four Trip Blanks were included with the VOCs. The assigned sample ID number, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits. A breakdown of sample receipt information can be found on the Sample Condition Report located in the last section of the data package and any exceptions are noted below. The analyses were performed following DOD QSM 5.4 requirements.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, a Reason #(s) was included on the raw data that corresponds to the "Index Key for Manual Integration Rationale." The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Analysis and Quality Control

Volatile Analysis:

The samples were analyzed using US EPA Methods 8260C (VOC) and RSK-175 (Dissolved Gases). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8260 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

VOC (8260C) Water Analysis

Analytical Run # 273706

CCV1 (analyzed 07/21/2023 @ 14:17 on VMS3) had a high recovery outside of specified criteria for dichlorodifluoromethane. This compound was qualified with a "Z" flag in the associated samples.

Samples 1347303 and 1347304 had a pH > 2. These samples were qualified with a "T" flag for being insufficiently preserved.

Dissolved Gases (RSK-175) Analysis

Analytical Run # 273815 (Methane, Ethene, Ethane)

Samples 1347303 and 1347304 had a pH > 2. These samples were qualified with a "T" flag for being insufficiently preserved.

Metals Analysis:

The samples were analyzed using US EPA Methods 6010C (ICP) and 7470A (Hg). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification
Blanks Summary
ICP Interference Check Data
Spike Sample Recovery
Duplicates Data
Laboratory Control Sample Data
Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

ICP Metals (6010C) Water Analysis

Continuing Calibration Verification (CCV) standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Analytical Run # 273760

Silver was detected in the Method Blank (MB) greater than the Method Detection Limit (MDL) but less than ½ the Reporting Limit (RL). The sample was reported and not qualified because the sample silver result was less than the MDL.

The Duplicate (DUP) for sample # 1348149 was not applicable for antimony, arsenic, beryllium, cadmium, cobalt, copper, lead, selenium, silver, and thallium because the results were less than the adjusted Limit of Quantitation (LOQ). A Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

The Matrix Spike (MS) and/or MSD for sample # 1348149 had recoveries outside the specified limits for aluminum, calcium, iron, manganese, lead, thallium, vanadium, and zinc. A Serial Dilution (L) was analyzed and was not applicable for lead, thallium, vanadium, and zinc because the parent sample raw results were less than 50 times the LOQ. The L was analyzed and was not acceptable for aluminum, calcium, iron, and manganese because the results exceeded the Relative Percent Difference (RPD) limit. A Post Digestion Spike (PDS) was analyzed and was unacceptable for lead, thallium, vanadium, zinc, and manganese. The parent sample was reported and qualified with an "M" flag for the failing elements.

CVAA Mercury (7470A) Water Analysis

Analytical Run # 273833

Mercury was detected in the Method Blank (MB) greater than the Method Detection Limit (MDL). The MB was reanalyzed prior to the samples and was acceptable. The samples were reported and not qualified.

The sample QC was performed on a sample from SDG # 178887.

Inorganic Analysis:

The samples were analyzed using US EPA Methods 9060A (TOC), 9040C (pH), 410.4 (COD) and 9056A (Anions). All samples were analyzed within the holding time unless noted below. The following summaries of quality control procedures are included:

Duplicate Analysis Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Anions (9056A) Water Analysis

Analytical Run # 273583

The MS and the MSD for sample # 1346821 had a low recovery for sulfate. The parent sample result for this analyte was qualified with an "M" flag.

Analytical Run # 273619

The MS and the MSD for sample # 1347302 had a low recovery for sulfate. The parent sample result for this analyte was qualified with an "M" flag.

Analytical Run # 273661

The MS and the MSD for sample # 1347759 had a low recovery for sulfate. The parent sample result for this analyte was qualified with an "M" flag.

Analytical Run # 273708

The samples for this run were analyzed past the 48-hour hold time for nitrate. This analyte was qualified with an “H” flag in the associated samples.

The Duplicate (DUP) for sample # 1348146 exceeded RPD limits for sulfate. The parent sample result was qualified with a “Y” flag.

The MS and the MSD for sample # 1348146 also had a low recovery for sulfate. The parent sample result for this analyte was qualified with an “M” flag.

COD (410.4) Water Analysis

Analytical Run # 273727

All analytical results for this run met the method/project specified quality control criteria.

The MS/MSD analysis for this run was performed on a sample from a different SDG (SDG 178887).

pH (9040C) Water Analysis

Analytical Run # 273725

All analytical results for these runs met the method/project specified quality control criteria.

TOC (9060A) Water Analysis

Analytical Run # 273651

All analytical results for these runs met the method/project specified quality control criteria.

Analytical Run # 273734

All analytical results for these runs met the method/project specified quality control criteria.

CT LABORATORIES

delivering more than data from your environmental analyses

Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

CT LABORATORIES

delivering more than data from your environmental analyses

MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: **Data system failed to select the correct peak or missed the peak entirely.**
In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: **Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.**
This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.
For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.
Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the *QA/QC* Supervisor will be required.

CT LABORATORIES
delivering more than data from your environmental analyses
1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

Sample Delivery Group

178914

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SWMU 49
Project #:

	CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
1	1346820	178914		49TB-1	TRIP BLANK	07/11/2023	07/12/2023
2	1346821	178914		13MW4	GROUND WATER	07/11/2023	07/12/2023
3	1346822	178914		13MW3	GROUND WATER	07/11/2023	07/12/2023
4	1346823	178914		49MW04	GROUND WATER	07/11/2023	07/12/2023
5	1346824	178914		49TW04	GROUND WATER	07/11/2023	07/12/2023
6	1346825	178914		13MW2	GROUND WATER	07/11/2023	07/12/2023
7	1347301	178962		49TB-2	TRIP BLANK	07/12/2023	07/13/2023
8	1347302	178962		48MW6	GROUND WATER	07/12/2023	07/13/2023
9	1347303	178962		49MW01	GROUND WATER	07/12/2023	07/13/2023
10	1347304	178962		49TW01	GROUND WATER	07/12/2023	07/13/2023
11	1347305	178962		49MW01-EQB	GROUND WATER	07/12/2023	07/13/2023
12	1347757	179025		49TB-3	TRIP BLANK	07/13/2023	07/14/2023
13	1347758	179025		48MW1	GROUND WATER	07/13/2023	07/14/2023
14	1347759	179025		50MW2	GROUND WATER	07/13/2023	07/14/2023
15	1348130	179047		49TB-4	TRIP BLANK	07/14/2023	07/15/2023
16	1348146	179047		48MW2	GROUND WATER	07/14/2023	07/15/2023
17	1348147	179047		48MW3	GROUND WATER	07/14/2023	07/15/2023
18	1348148	179047		49MW02	GROUND WATER	07/14/2023	07/15/2023
19	1348149	179047		49IDW	GROUND WATER	07/14/2023	07/15/2023

CT LABORATORIES
delivering more than data from your environmental analyses
1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

QC Batch Cross Reference Summary

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SWMU 49
Project #:
Report Date: 08/08/2023
Date Received: 7/17/2023
SDG #: 178914

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348149	pH	EPA 9040C	GROUND WATER		273725

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348149	COD QSM	EPA 410.4	GROUND WATER	130553	273727

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1346821	Anions QSM 5.0	EPA 9056A	GROUND WATER		273583
1346822	Anions QSM 5.0	EPA 9056A	GROUND WATER		273583
1346823	Anions QSM 5.0	EPA 9056A	GROUND WATER		273583
1346824	Anions QSM 5.0	EPA 9056A	GROUND WATER		273583
1346825	Anions QSM 5.0	EPA 9056A	GROUND WATER		273583
1347302	Anions QSM 5.0	EPA 9056A	GROUND WATER		273619
1347303	Anions QSM 5.0	EPA 9056A	GROUND WATER		273619
1347304	Anions QSM 5.0	EPA 9056A	GROUND WATER		273619
1347305	Anions QSM 5.0	EPA 9056A	GROUND WATER		273619
1347758	Anions QSM 5.0	EPA 9056A	GROUND WATER		273661
1347759	Anions QSM 5.0	EPA 9056A	GROUND WATER		273661
1348146	Anions QSM 5.0	EPA 9056A	GROUND WATER		273708
1348147	Anions QSM 5.0	EPA 9056A	GROUND WATER		273708
1348148	Anions QSM 5.0	EPA 9056A	GROUND WATER		273708
1346822	Anions QSM 5.0	EPA 9056A	GROUND WATER		273583
1347302	Anions QSM 5.0	EPA 9056A	GROUND WATER		273619

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1346821	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1346822	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1346823	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1346824	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1346825	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1347302	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1347303	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651

Project Name: RADFORD AAP SWMU 49
Project #:
SDG #: 178914

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1347304	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1347305	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273651
1347758	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273734
1347759	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273734
1348146	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273734
1348147	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273734
1348148	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		273734

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348149	Potassium, Total QSM 5.0	EPA 6010C	GROUND WATER	130560	273760

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348149	Sodium, Total QSM 5.0	EPA 6010C	GROUND WATER	130560	273760

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348149	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	130560	273760

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348149	Mercury, Total QSM	EPA 7470A	GROUND WATER	130488	273833

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1346820	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		273706
1346821	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1346822	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1346823	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1346824	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1346825	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1347301	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		273706
1347302	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1347303	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1347304	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1347305	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1347757	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		273706
1347758	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1347759	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1348130	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		273706
1348146	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706

Project Name: RADFORD AAP SWMU 49
Project #:
SDG #: 178914

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1348147	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706
1348148	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		273706

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1346821	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1346822	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1346823	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1346824	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1346825	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1347302	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1347303	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1347304	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1347305	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1347758	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1347759	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1348146	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1348147	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815
1348148	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	130621	273815

Summary of Methods associated with SDG

SDG: **178914**
Company: **WESTON SOLUTIONS, INC.**
Project: **RADFORD AAP SWMU 49**

Matrix	Analytical Method	Prep Method	Cleanup Method(s) - if applicable
GROUND WATER	EPA 9040C	NONE	
GROUND WATER	EPA 410.4	EPA 414	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 7470A	EPA 7470A	
GROUND WATER	EPA 8260C	EPA 5030B	
TRIP BLANK	EPA 8260C	EPA 5030B	
GROUND WATER	RSK 175	RSK175M	
GROUND WATER	EPA 9056A	NONE	
GROUND WATER	EPA 9060A	NONE	

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:17	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:18	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:18	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:18	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:05	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	5.2		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.54	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.89	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 09:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:27	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:27	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:27	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.95	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:41	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	0.50	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	9.4		0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.60	J	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.4		0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.6		0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	1.4	J	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.41	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:58	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.65	J	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:04	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:04	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	19		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	3.2		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:04	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.2		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 11:02	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	76		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	9.9		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	13		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:45	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	3.0		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:45	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	5.9		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:45	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	2.9		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:25	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U T	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U T	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U T	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U T	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U T	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U T	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U T	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U T	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U T	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U T	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U T	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U T	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	0.49	J T	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U T	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U T	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U T	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U T	34	50	100	100
78-93-3	2-Butanone	10	U T	2.9	10	11	11
591-78-6	2-Hexanone	10	U T	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U T	3.7	10	12	12
67-64-1	Acetone	10	U T	4.1	10	20	20
71-43-2	Benzene	1.0	U T	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U T	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U T	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U T	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U T	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U T	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.38	J T	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U T	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U T	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U T	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U T	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U T	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U T	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U T	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U T	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U TZ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U T	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U T	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U T	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U T	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U T	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U T	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U T	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U T	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U T	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U T	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U T	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U T	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U T	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U T	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U T	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U T	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U T	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01-EQB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	4.9	J	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01-EQB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.1	J	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.1	J	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	1.9	J	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 11:07	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW02**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:59	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:59	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:59	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:09	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.70	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TB-1**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: TRIP BLANK | SDG No.: 178914

Sample wt/vol: (g/mL) | CTL Sample ID: 1346820

% Solids: | Date Received: 07/12/2023

Soil Extract Vol: (mL) | Date/Time Prepared: /

Analytical Method: EPA 8260C | Analytical Prep Batch #:

Analytical Run #: 273706 | Dilution Factor: 1

Date & Time Analyzed: 07/21/2023 / 16:08 | GPC (3640A) Cleanup Date/Time: /

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. | Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346820
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346820
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347301
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347301
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347301
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TB-3**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: TRIP BLANK | SDG No.: 178914

Sample wt/vol: (g/mL) | CTL Sample ID: 1347757

% Solids: | Date Received: 07/14/2023

Soil Extract Vol: (mL) | Date/Time Prepared: /

Analytical Method: EPA 8260C | Analytical Prep Batch #:

Analytical Run #: 273706 | Dilution Factor: 1

Date & Time Analyzed: 07/21/2023 / 17:31 | GPC (3640A) Cleanup Date/Time: /

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. | Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347757
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347757
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348130
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:00	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348130
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:00	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348130
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:00	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:32	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U T	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U T	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U T	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U T	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U T	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U T	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U T	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U T	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U T	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U T	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U T	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U T	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	0.37	J T	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U T	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U T	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U T	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U T	34	50	100	100
78-93-3	2-Butanone	10	U T	2.9	10	11	11
591-78-6	2-Hexanone	10	U T	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U T	3.7	10	12	12
67-64-1	Acetone	10	U T	4.1	10	20	20
71-43-2	Benzene	1.0	U T	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U T	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U T	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U T	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U T	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U T	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U T	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U T	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U T	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U T	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U T	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U T	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U T	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U T	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U T	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U TZ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	0.44	J T	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U T	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U T	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	0.98	J T	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U T	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U T	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U T	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U T	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U T	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U T	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U T	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U T	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U T	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U T	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U T	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U T	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U T	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.77	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.1	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.3		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1350344
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG071323	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
74-84-0	Ethane	07/20/2023	09:45	0.38	U	0.38	1.0	***0.4***
74-85-1	Ethene	07/20/2023	09:45	0.59	U	0.59	1.4	***0.6***
74-82-8	Methane	07/20/2023	09:45	0.45	U	0.45	1.0	***0.4***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1351392
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	273706	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W071823.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	07/21/2023	15:40	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	07/21/2023	15:40	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	07/21/2023	15:40	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	07/21/2023	15:40	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	07/21/2023	15:40	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	07/21/2023	15:40	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	07/21/2023	15:40	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	07/21/2023	15:40	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	07/21/2023	15:40	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	07/21/2023	15:40	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	07/21/2023	15:40	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	07/21/2023	15:40	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	07/21/2023	15:40	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	07/21/2023	15:40	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	07/21/2023	15:40	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	07/21/2023	15:40	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	07/21/2023	15:40	4.1	U	4.1	20	***10***
71-43-2	Benzene	07/21/2023	15:40	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	07/21/2023	15:40	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	07/21/2023	15:40	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	07/21/2023	15:40	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	07/21/2023	15:40	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	07/21/2023	15:40	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1351392
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	273706	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W071823.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	07/21/2023	15:40	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	07/21/2023	15:40	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	07/21/2023	15:40	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	07/21/2023	15:40	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	07/21/2023	15:40	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	07/21/2023	15:40	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	07/21/2023	15:40	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	07/21/2023	15:40	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	07/21/2023	15:40	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	07/21/2023	15:40	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	07/21/2023	15:40	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	07/21/2023	15:40	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	07/21/2023	15:40	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	07/21/2023	15:40	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	07/21/2023	15:40	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	07/21/2023	15:40	0.28	U	0.28	1.1	***0.55***
108-87-2	Methylcyclohexane	07/21/2023	15:40	0.78	U	0.78	2.4	***1.2***
75-09-2	Methylene chloride	07/21/2023	15:40	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	07/21/2023	15:40	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	07/21/2023	15:40	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	07/21/2023	15:40	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	07/21/2023	15:40	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	07/21/2023	15:40	0.35	U	0.35	1.1	***0.55***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1351392
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	273706	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W071823.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
10061-02-6	trans-1,3-Dichloropropene	07/21/2023	15:40	0.56	U	0.56	2.1	***1.05***
79-01-6	Trichloroethene	07/21/2023	15:40	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	07/21/2023	15:40	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	07/21/2023	15:40	0.12	U	0.12	0.50	***0.25***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1351484
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	273706	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W071823.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	07/24/2023	08:44	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	07/24/2023	08:44	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	07/24/2023	08:44	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	07/24/2023	08:44	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	07/24/2023	08:44	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	07/24/2023	08:44	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	07/24/2023	08:44	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	07/24/2023	08:44	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	07/24/2023	08:44	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	07/24/2023	08:44	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	07/24/2023	08:44	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	07/24/2023	08:44	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	07/24/2023	08:44	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	07/24/2023	08:44	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	07/24/2023	08:44	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	07/24/2023	08:44	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	07/24/2023	08:44	4.1	U	4.1	20	***10***
71-43-2	Benzene	07/24/2023	08:44	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	07/24/2023	08:44	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	07/24/2023	08:44	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	07/24/2023	08:44	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	07/24/2023	08:44	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	07/24/2023	08:44	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1351484
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	273706	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W071823.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	07/24/2023	08:44	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	07/24/2023	08:44	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	07/24/2023	08:44	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	07/24/2023	08:44	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	07/24/2023	08:44	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	07/24/2023	08:44	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	07/24/2023	08:44	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	07/24/2023	08:44	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	07/24/2023	08:44	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	07/24/2023	08:44	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	07/24/2023	08:44	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	07/24/2023	08:44	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	07/24/2023	08:44	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	07/24/2023	08:44	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	07/24/2023	08:44	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	07/24/2023	08:44	0.28	U	0.28	1.1	***0.55***
75-09-2	Methylene chloride	07/24/2023	08:44	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	07/24/2023	08:44	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	07/24/2023	08:44	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	07/24/2023	08:44	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	07/24/2023	08:44	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	07/24/2023	08:44	0.35	U	0.35	1.1	***0.55***
10061-02-6	trans-1,3-Dichloropropene	07/24/2023	08:44	0.56	U	0.56	2.1	***1.05***

CT LABORATORIES
delivering more than data from your environmental analyses

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1351484
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	0
Analytical Run #:	273706	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W071823.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
79-01-6	Trichloroethene	07/24/2023	08:44	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	07/24/2023	08:44	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	07/24/2023	08:44	0.12	U	0.12	0.50	***0.25***

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	178914
Analytical Run #:	273706	ICAL Calibration #:	W071823.

CTLab #	1346820				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1346821**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	98.0	80	119	
CTLab #	**1346822**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	98.0	80	119	
CTLab #	**1346823**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	
CTLab #	**1346824**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	99.0	89	112	
Dibromofluoromethane	100	102	80	119	
CTLab #	**1346825**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	99.0	89	112	
Dibromofluoromethane	100	100	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Analytical Method: EPA 8260C | SDG: 178914

Analytical Run #: 273706 | ICAL Calibration #: W071823.

CTLab #	1347301				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	99.0	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1347302**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	99.0	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1347303**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1347304**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	100	80	119	
CTLab #	**1347305**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1347757**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	98.0	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	178914
Analytical Run #:	273706	ICAL Calibration #:	W071823.

CTLab #	1347758				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	100	80	119	
CTLab #	**1347759**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	99.0	89	112	
Dibromofluoromethane	100	98.0	80	119	
CTLab #	**1348130**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	104	85	114	
d8-Toluene	100	99.0	89	112	
Dibromofluoromethane	100	97.0	80	119	
CTLab #	**1348146**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1348147**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	100	80	119	
CTLab #	**1348148**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	99.0	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	178914
Analytical Run #:	273706	ICAL Calibration #:	W071823.

CTLab #	1351391	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	

CTLab #	1351392	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	99.0	80	119	

CTLab #	1351393	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	80	120	
Bromofluorobenzene	100	101	80	120	
d8-Toluene	100	101	80	120	
Dibromofluoromethane	100	101	80	120	

CTLab #	1351394	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	50	150	
Bromofluorobenzene	100	97.0	50	150	
d8-Toluene	100	102	50	150	
Dibromofluoromethane	100	102	50	150	

CTLab #	1351419	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	80	120	
Bromofluorobenzene	100	101	80	120	
d8-Toluene	100	100	80	120	
Dibromofluoromethane	100	100	80	120	

CTLab #	1351483	Sample Type:	Matrix Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	102	80	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	178914
Analytical Run #:	273706	ICAL Calibration #:	W071823.

CTLab #	1351484	Sample Type:	Normal Field Sample		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	99.0	80	119	

CTLab #	1351487	Sample Type:	Matrix Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	

CTLab #	1351593	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	50	150	
Bromofluorobenzene	100	101	50	150	
d8-Toluene	100	101	50	150	
Dibromofluoromethane	100	100	50	150	

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **13MW4**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 178914
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 273706
Sample No.: 1351483
Parent Sample No.: 1346821
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W071823.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	07/24/2023	09:12	74-131	11.1	BDL	10.0	111
1,1,2,2-Tetrachloroethane	07/24/2023	09:12	71-121	9.41	BDL	10.0	94
1,1,2-Trichloroethane	07/24/2023	09:12	80-119	10.2	BDL	10.0	102
1,1-Dichloroethane	07/24/2023	09:12	77-125	10.8	BDL	10.0	108
1,1-Dichloroethene	07/24/2023	09:12	71-131	11.7	BDL	10.0	117
1,2,3-Trichlorobenzene	07/24/2023	09:12	69-129	10.1	BDL	10.0	101
1,2,4-Trichlorobenzene	07/24/2023	09:12	69-130	10.5	BDL	10.0	105
1,2-Dibromo-3-chloropropane	07/24/2023	09:12	62-128	8.67	BDL	10.0	87
1,2-Dibromoethane	07/24/2023	09:12	77-121	9.96	BDL	10.0	100
1,2-Dichlorobenzene	07/24/2023	09:12	80-119	10.4	BDL	10.0	104
1,2-Dichloroethane	07/24/2023	09:12	73-128	10.3	BDL	10.0	103
1,2-Dichloropropane	07/24/2023	09:12	78-122	10.5	BDL	10.0	105
1,3-Dichlorobenzene	07/24/2023	09:12	80-119	11.2	BDL	10.0	112
1,4-Dioxane	07/24/2023	09:12	59-139	453	BDL	500	91
2-Butanone	07/24/2023	09:12	56-143	81.9	BDL	100	82
2-Hexanone	07/24/2023	09:12	57-139	88.7	BDL	100	89
4-Methyl-2-pentanone	07/24/2023	09:12	67-130	92.4	BDL	100	92
Acetone	07/24/2023	09:12	39-160	65.8	BDL	100	66
Benzene	07/24/2023	09:12	79-120	11.3	BDL	10.0	113
Bromochloromethane	07/24/2023	09:12	78-123	10.7	BDL	10.0	107
Bromodichloromethane	07/24/2023	09:12	79-125	10.5	BDL	10.0	105
Bromoform	07/24/2023	09:12	66-130	9.29	BDL	10.0	93
Bromomethane	07/24/2023	09:12	53-141	11.3	BDL	10.0	113
Carbon disulfide	07/24/2023	09:12	64-133	24.1	BDL	20.0	120
Carbon tetrachloride	07/24/2023	09:12	72-136	11.1	BDL	10.0	111
Chlorobenzene	07/24/2023	09:12	82-118	10.8	BDL	10.0	108
Chloroethane	07/24/2023	09:12	60-138	11.2	BDL	10.0	112
Chloroform	07/24/2023	09:12	79-124	10.8	BDL	10.0	108
Chloromethane	07/24/2023	09:12	50-139	9.77	BDL	10.0	98
cis-1,2-Dichloroethene	07/24/2023	09:12	78-123	10.9	BDL	10.0	109
cis-1,3-Dichloropropene	07/24/2023	09:12	75-124	10.8	BDL	10.0	108

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

13MW4

WATER VOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 178914
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 273706
Sample No.: 1351483
Parent Sample No.: 1346821
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W071823.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Cyclohexane	07/24/2023	09:12	71-130	11.8	BDL	10.0	118
Dibromochloromethane	07/24/2023	09:12	74-126	9.95	BDL	10.0	100
Dichlorodifluoromethane	07/24/2023	09:12	32-152	12.3	BDL	10.0	123
Ethylbenzene	07/24/2023	09:12	79-121	11.4	BDL	10.0	114
Freon 113	07/24/2023	09:12	70-136	23.4	BDL	20.0	117
Isopropylbenzene	07/24/2023	09:12	72-131	11.8	BDL	10.0	118
m & p-Xylene	07/24/2023	09:12	80-121	23.0	BDL	20.0	115
Methyl Acetate	07/24/2023	09:12	56-136	10.1	BDL	10.0	101
Methyl tert-butyl ether	07/24/2023	09:12	71-124	10.1	BDL	10.0	101
Methylcyclohexane	07/24/2023	09:12	72-132	10.9	BDL	10.0	109
Methylene chloride	07/24/2023	09:12	74-124	10.5	BDL	10.0	105
o-Xylene	07/24/2023	09:12	78-122	11.2	BDL	10.0	112
Styrene	07/24/2023	09:12	78-123	11.3	BDL	10.0	113
Tetrachloroethene	07/24/2023	09:12	74-129	11.6	BDL	10.0	116
Toluene	07/24/2023	09:12	80-121	11.4	BDL	10.0	114
trans-1,2-Dichloroethene	07/24/2023	09:12	75-124	11.4	BDL	10.0	114
trans-1,3-Dichloropropene	07/24/2023	09:12	73-127	10.7	BDL	10.0	107
Trichloroethene	07/24/2023	09:12	79-123	11.9	0.95	10.0	110
Trichlorofluoromethane	07/24/2023	09:12	65-141	12.0	BDL	10.0	120
Vinyl chloride	07/24/2023	09:12	58-137	11.4	BDL	10.0	114

Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description

13MW4

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: GROUND WATER
SDG No.: 178914

Analytical Method: RSK 175
Concentration Units: ug/L

Analytical Run #: 273815
Sample No.: 1350342
Parent Sample No.: 1346821

Analytical Prep Batch #: 130621
Analytical Preparation Date/Time: 07/20/2023 08:11

ICAL Calibration #: P4DG071323

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	07/20/2023	09:56	74-131	4.30	BDL	4.76	90
Ethene	07/20/2023	09:56	72-133	6.05	BDL	6.77	89
Methane	07/20/2023	09:56	73-125	2.19	BDL	2.28	96

Spike Recovery: 0 out of 3 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **13MW4**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 178914
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 273706
Sample No.: 1351487
Parent Sample No.: 1351483
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W071823.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
1,1,1-Trichloroethane	07/24/2023	09:40	11.9	10.0	119	7	74-131	20
1,1,2,2-Tetrachloroethane	07/24/2023	09:40	9.58	10.0	96	2	71-121	20
1,1,2-Trichloroethane	07/24/2023	09:40	10.4	10.0	104	2	80-119	20
1,1-Dichloroethane	07/24/2023	09:40	11.3	10.0	113	5	77-125	20
1,1-Dichloroethene	07/24/2023	09:40	12.5	10.0	125	7	71-131	20
1,2,3-Trichlorobenzene	07/24/2023	09:40	10.3	10.0	103	3	69-129	20
1,2,4-Trichlorobenzene	07/24/2023	09:40	11.0	10.0	110	5	69-130	20
1,2-Dibromo-3-chloropropane	07/24/2023	09:40	8.61	10.0	86	1	62-128	20
1,2-Dibromoethane	07/24/2023	09:40	10.1	10.0	101	1	77-121	20
1,2-Dichlorobenzene	07/24/2023	09:40	10.8	10.0	108	4	80-119	20
1,2-Dichloroethane	07/24/2023	09:40	10.6	10.0	106	3	73-128	20
1,2-Dichloropropane	07/24/2023	09:40	11.2	10.0	112	6	78-122	20
1,3-Dichlorobenzene	07/24/2023	09:40	11.1	10.0	111	1	80-119	20
1,4-Dioxane	07/24/2023	09:40	460	500	92	1	59-139	20
2-Butanone	07/24/2023	09:40	83.0	100	83	1	56-143	20
2-Hexanone	07/24/2023	09:40	86.6	100	87	2	57-139	20
4-Methyl-2-pentanone	07/24/2023	09:40	92.3	100	92	0	67-130	20
Acetone	07/24/2023	09:40	63.9	100	64	3	39-160	20
Benzene	07/24/2023	09:40	11.7	10.0	117	4	79-120	20
Bromochloromethane	07/24/2023	09:40	10.9	10.0	109	2	78-123	20
Bromodichloromethane	07/24/2023	09:40	10.8	10.0	108	3	79-125	20
Bromoform	07/24/2023	09:40	9.87	10.0	99	6	66-130	20
Bromomethane	07/24/2023	09:40	11.7	10.0	117	4	53-141	20
Carbon disulfide	07/24/2023	09:40	25.6	20.0	128	6	64-133	20
Carbon tetrachloride	07/24/2023	09:40	11.7	10.0	117	6	72-136	20
Chlorobenzene	07/24/2023	09:40	11.3	10.0	113	5	82-118	20
Chloroethane	07/24/2023	09:40	12.0	10.0	120	7	60-138	20
Chloroform	07/24/2023	09:40	11.4	10.0	114	5	79-124	20
Chloromethane	07/24/2023	09:40	10.4	10.0	104	6	50-139	20
cis-1,2-Dichloroethene	07/24/2023	09:40	11.5	10.0	115	5	78-123	20
cis-1,3-Dichloropropene	07/24/2023	09:40	11.1	10.0	111	2	75-124	20

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

13MW4

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 178914
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 273706
Sample No.: 1351487
Parent Sample No.: 1351483
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W071823.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Cyclohexane	07/24/2023	09:40	11.9	10.0	119	1	71-130	20
Dibromochloromethane	07/24/2023	09:40	10.5	10.0	105	6	74-126	20
Dichlorodifluoromethane	07/24/2023	09:40	12.7	10.0	127	3	32-152	20
Ethylbenzene	07/24/2023	09:40	11.8	10.0	118	3	79-121	20
Freon 113	07/24/2023	09:40	24.7	20.0	124	5	70-136	20
Isopropylbenzene	07/24/2023	09:40	12.2	10.0	122	4	72-131	20
m & p-Xylene	07/24/2023	09:40	23.7	20.0	118	3	80-121	20
Methyl Acetate	07/24/2023	09:40	9.66	10.0	97	5	56-136	20
Methyl tert-butyl ether	07/24/2023	09:40	10.3	10.0	103	3	71-124	20
Methylcyclohexane	07/24/2023	09:40	11.4	10.0	114	4	72-132	20
Methylene chloride	07/24/2023	09:40	11.2	10.0	112	6	74-124	20
o-Xylene	07/24/2023	09:40	11.7	10.0	117	4	78-122	20
Styrene	07/24/2023	09:40	11.6	10.0	116	2	78-123	20
Tetrachloroethene	07/24/2023	09:40	12.0	10.0	120	3	74-129	20
Toluene	07/24/2023	09:40	11.6	10.0	116	2	80-121	20
trans-1,2-Dichloroethene	07/24/2023	09:40	11.8	10.0	118	4	75-124	20
trans-1,3-Dichloropropene	07/24/2023	09:40	11.0	10.0	110	2	73-127	20
Trichloroethene	07/24/2023	09:40	12.5	10.0	116	4	79-123	20
Trichlorofluoromethane	07/24/2023	09:40	11.9	10.0	119	1	65-141	20
Vinyl chloride	07/24/2023	09:40	11.4	10.0	114	0	58-137	20

RPD or Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description

13MW4

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: GROUND WATER
SDG No.: 178914

Analytical Method: RSK 175
Concentration Units: ug/L

Analytical Run #: 273815
Sample No.: 1350343
Parent Sample No.: 1350342

Analytical Prep Batch #: 130621
Analytical Preparation Date/Time: 07/20/2023 08:11

ICAL Calibration #: P4DG071323

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Ethane	07/20/2023	10:02	4.40	4.76	92	2	74-131	30
Ethene	07/20/2023	10:02	6.19	6.77	91	2	72-133	30
Methane	07/20/2023	10:02	2.11	2.28	93	4	73-125	30

RPD or Spike Recovery: 0 out of 3 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1350345
SDG No.: 178914
Analytical Method: RSK 175
Concentration Units: ug/L

Sample No.: 1350345
Parent Sample No.: 0
Analytical Prep Batch #: 130621
Analytical Preparation Date/Time: 07/20/2023 08:11
Analytical Run #: 273815
ICAL Calibration #: P4DG071323

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	07/20/2023	09:38	74-131	4.78		4.76	100
Ethene	07/20/2023	09:38	72-133	6.67		6.77	99
Methane	07/20/2023	09:38	73-125	2.24		2.28	98

Spike Recovery: 0 out of 3 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1351391
SDG No.: 178914
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1351391
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273706
ICAL Calibration #: W071823.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	07/21/2023	14:17	74-131	10.6		10.0	106
1,1,2,2-Tetrachloroethane	07/21/2023	14:17	71-121	9.89		10.0	99
1,1,2-Trichloroethane	07/21/2023	14:17	80-119	10.1		10.0	101
1,1-Dichloroethane	07/21/2023	14:17	77-125	10.3		10.0	103
1,1-Dichloroethene	07/21/2023	14:17	71-131	11.0		10.0	110
1,2,3-Trichlorobenzene	07/21/2023	14:17	69-129	10.3		10.0	103
1,2,4-Trichlorobenzene	07/21/2023	14:17	69-130	10.6		10.0	106
1,2-Dibromo-3-chloropropane	07/21/2023	14:17	62-128	9.14		10.0	91
1,2-Dibromoethane	07/21/2023	14:17	77-121	10.1		10.0	101
1,2-Dichlorobenzene	07/21/2023	14:17	80-119	10.2		10.0	102
1,2-Dichloroethane	07/21/2023	14:17	73-128	10.2		10.0	102
1,2-Dichloropropane	07/21/2023	14:17	78-122	10.2		10.0	102
1,3-Dichlorobenzene	07/21/2023	14:17	80-119	10.7		10.0	107
2-Butanone	07/21/2023	14:17	56-143	99.9		100	100
2-Hexanone	07/21/2023	14:17	57-139	104		100	104
4-Methyl-2-pentanone	07/21/2023	14:17	67-130	97.0		100	97
Acetone	07/21/2023	14:17	39-160	108		100	108
Benzene	07/21/2023	14:17	79-120	10.7		10.0	107
Bromochloromethane	07/21/2023	14:17	78-123	10.2		10.0	102
Bromodichloromethane	07/21/2023	14:17	79-125	10.1		10.0	101
Bromoform	07/21/2023	14:17	66-130	9.56		10.0	96
Bromomethane	07/21/2023	14:17	53-141	11.3		10.0	113
Carbon disulfide	07/21/2023	14:17	64-133	23.2		20.0	116
Carbon tetrachloride	07/21/2023	14:17	72-136	10.7		10.0	107
Chlorobenzene	07/21/2023	14:17	82-118	10.5		10.0	105
Chloroethane	07/21/2023	14:17	60-138	10.7		10.0	107
Chloroform	07/21/2023	14:17	79-124	10.4		10.0	104
Chloromethane	07/21/2023	14:17	50-139	9.67		10.0	97

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1351391
SDG No.: 178914
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1351391
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273706
ICAL Calibration #: W071823.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
cis-1,2-Dichloroethene	07/21/2023	14:17	78-123	10.3		10.0	103
cis-1,3-Dichloropropene	07/21/2023	14:17	75-124	10.4		10.0	104
Cyclohexane	07/21/2023	14:17	71-130	11.6		10.0	116
Dibromochloromethane	07/21/2023	14:17	74-126	10.3		10.0	103
Dichlorodifluoromethane	07/21/2023	14:17	32-152	12.6		10.0	126
Ethylbenzene	07/21/2023	14:17	79-121	10.9		10.0	109
Freon 113	07/21/2023	14:17	70-136	23.1		20.0	116
Isopropylbenzene	07/21/2023	14:17	72-131	11.2		10.0	112
m & p-Xylene	07/21/2023	14:17	80-121	22.2		20.0	111
Methyl Acetate	07/21/2023	14:17	56-136	9.24		10.0	92
Methyl tert-butyl ether	07/21/2023	14:17	71-124	9.80		10.0	98
Methylcyclohexane	07/21/2023	14:17	72-132	10.7		10.0	107
Methylene chloride	07/21/2023	14:17	74-124	10.1		10.0	101
o-Xylene	07/21/2023	14:17	78-122	10.9		10.0	109
Styrene	07/21/2023	14:17	78-123	10.9		10.0	109
Tetrachloroethene	07/21/2023	14:17	74-129	11.1		10.0	111
Toluene	07/21/2023	14:17	80-121	10.5		10.0	105
trans-1,2-Dichloroethene	07/21/2023	14:17	75-124	10.4		10.0	104
trans-1,3-Dichloropropene	07/21/2023	14:17	73-127	10.2		10.0	102
Trichloroethene	07/21/2023	14:17	79-123	10.5		10.0	105
Trichlorofluoromethane	07/21/2023	14:17	65-141	11.3		10.0	113
Vinyl chloride	07/21/2023	14:17	58-137	10.8		10.0	108

Spike Recovery: 0 out of 50 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample ID:	1350344	SDG No.:	178914
Matrix:	LIQUID	Date Extracted:	07/20/2023
Date Analyzed:	07/20/2023	Time Analyzed:	09:45
Analytical Method:	RSK 175	Extraction Method:	METHOD
Analytical Run #:	273815	Extraction Batch #:	130621
		ICAL Calibration #:	P4DG071323

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	CCV	1350563	07/20/2023 09:33	P4DG071323
2	LCSW	1350345	07/20/2023 09:38	P4DG071323
3	MBW	1350344	07/20/2023 09:45	P4DG071323
4	13MW4	1346821	07/20/2023 09:50	P4DG071323
5	13MW4MSW	1350342	07/20/2023 09:56	P4DG071323
6	13MW4MSDW	1350343	07/20/2023 10:02	P4DG071323
7	13MW3	1346822	07/20/2023 10:05	P4DG071323
8	49MW04	1346823	07/20/2023 10:09	P4DG071323
9	49TW04	1346824	07/20/2023 10:14	P4DG071323
10	13MW2	1346825	07/20/2023 10:17	P4DG071323
11	48MW6	1347302	07/20/2023 10:21	P4DG071323
12	49MW01	1347303	07/20/2023 10:25	P4DG071323
13	49TW01	1347304	07/20/2023 10:32	P4DG071323
14	49MW01-EQB	1347305	07/20/2023 10:36	P4DG071323
15	48MW1	1347758	07/20/2023 10:41	P4DG071323
16	CCV	1350564	07/20/2023 10:45	P4DG071323
17	50MW2	1347759	07/20/2023 10:54	P4DG071323
18	48MW2	1348146	07/20/2023 10:58	P4DG071323
19	48MW3	1348147	07/20/2023 11:02	P4DG071323
20	49MW02	1348148	07/20/2023 11:07	P4DG071323
21	CCV	1350565	07/20/2023 11:19	P4DG071323
22	CCV	1351752	07/24/2023 12:10	P4DG071323

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample ID:	1351392	SDG No.:	178914
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	07/21/2023	Time Analyzed:	15:40
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	273706	Extraction Batch #:	0
		ICAL Calibration #:	W071823.

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	1351989	07/21/2023 13:36	
2	LCSW	1351391	07/21/2023 14:17	W071823.
3	CCV	1351393	07/21/2023 14:17	W071823.
4	MBW	1351392	07/21/2023 15:40	W071823.
5	49TB-1	1346820	07/21/2023 16:08	W071823.
6	49TB-2	1347301	07/21/2023 16:36	W071823.
7	49MW01-EQB	1347305	07/21/2023 17:03	W071823.
8	49TB-3	1347757	07/21/2023 17:31	W071823.
9	49TB-4	1348130	07/21/2023 18:00	W071823.
10	13MW4	1346821	07/21/2023 18:27	W071823.
11	13MW3	1346822	07/21/2023 18:54	W071823.
12	49MW04	1346823	07/21/2023 19:21	W071823.
13	49TW04	1346824	07/21/2023 19:50	W071823.
14	13MW2	1346825	07/21/2023 20:18	W071823.
15	48MW6	1347302	07/21/2023 20:45	W071823.
16	49MW01	1347303	07/21/2023 21:12	W071823.
17	49TW01	1347304	07/21/2023 21:40	W071823.
18	48MW1	1347758	07/21/2023 22:08	W071823.
19	50MW2	1347759	07/21/2023 22:36	W071823.
20	48MW2	1348146	07/21/2023 23:04	W071823.
21	48MW3	1348147	07/21/2023 23:31	W071823.
22	49MW02	1348148	07/21/2023 23:59	W071823.
23	CCVF	1351394	07/22/2023 00:28	W071823.
24	BFB	1351990	07/24/2023 07:09	
25	CCV	1351419	07/24/2023 07:49	W071823.
26	CCB	1351484	07/24/2023 08:44	W071823.
27	13MW4MSW	1351483	07/24/2023 09:12	W071823.
28	13MW4MSDW	1351487	07/24/2023 09:40	W071823.
29	CCVF	1351593	07/24/2023 10:07	W071823.

Data File : C:\INSTARCH\DATA\JUL1823\BFB1.D Vial: 1
Acq On : 18 Jul 2023 9:47 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	6191	PASS
75	95	30	60	50.8	16875	PASS
95	95	100	100	100.0	33237	PASS
96	95	5	9	7.5	2488	PASS
173	174	0.00	2	0.6	163	PASS
174	95	50	100	80.2	26656	PASS
175	174	5	9	8.5	2257	PASS
176	174	95	101	98.7	26312	PASS
177	176	5	9	7.3	1930	PASS

W071823.M Wed Jul 19 07:53:08 2023

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\JUL1823\BFB1.D
Injection Date : 18 Jul 2023 Log Time Period (hrs) : ALL
Injection Time : 09:47 Total files within period : 24
Sample Directory : C:\INSTARCH\DATA\JUL1823\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	18 Jul 2023	11:00
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	18 Jul 2023	11:30
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	18 Jul 2023	11:59
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	18 Jul 2023	12:28
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	18 Jul 2023	12:58
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	18 Jul 2023	13:26
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	18 Jul 2023	13:56
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	18 Jul 2023	14:24
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	18 Jul 2023	14:54
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	18 Jul 2023	15:51
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	18 Jul 2023	16:20
MB-ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2, 5.0 mL Purged	18 Jul 2023	17:47

Data File : C:\Instarch\Data\JUL2123\BFB1.D Vial: 1
Acq On : 21 Jul 2023 13:36 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.644 to 4.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	5237	PASS
75	95	30	60	49.4	13407	PASS
95	95	100	100	100.0	27165	PASS
96	95	5	9	7.2	1964	PASS
173	174	0.00	2	0.4	80	PASS
174	95	50	100	81.7	22188	PASS
175	174	5	9	8.7	1928	PASS
176	174	95	101	98.4	21823	PASS
177	176	5	9	6.8	1492	PASS

W071823.M Mon Jul 24 14:36:48 2023

Data File : C:\Instarch\Data\JUL2123\BFB2.D Vial: 26
Acq On : 24 Jul 2023 7:09 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.657 to 4.669 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	10525	PASS
75	95	30	60	49.5	26189	PASS
95	95	100	100	100.0	52901	PASS
96	95	5	9	5.6	2956	PASS
173	174	0.00	2	0.7	277	PASS
174	95	50	100	80.5	42592	PASS
175	174	5	9	7.8	3317	PASS
176	174	95	101	100.4	42744	PASS
177	176	5	9	7.1	3017	PASS

W071823.M Mon Jul 24 14:37:42 2023

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\JUL2123\BFB1.D
Injection Date : 21 Jul 2023 Log Time Period (hrs) : ALL
Injection Time : 13:36 Total files within period : 32
Sample Directory : C:\INSTARCH\DATA\JUL2123\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	273706,LCSW, 10.0/100 ug/L, 5.0 m	21 Jul 2023	14:17
MB1	1.00	1.00	1.00	273706,MBW, pH<2, 5.0 mL Purged	21 Jul 2023	15:40
1346820	1.00	1.00	1.00	273706,1346820, pH<2,5.0 mL Purged +	21 Jul 2023	16:08
1347301	1.00	1.00	1.00	273706,1347301, pH<2,5.0 mL Purged +	21 Jul 2023	16:36
1347305	1.00	1.00	1.00	273706,1347305, pH<2,5.0 mL Purged +	21 Jul 2023	17:03
1347757	1.00	1.00	1.00	273706,1347757, pH<2,5.0 mL Purged +	21 Jul 2023	17:31
1348130	1.00	1.00	1.00	273706,1348130, pH<2,5.0 mL Purged +	21 Jul 2023	18:00
1346821	1.00	1.00	1.00	273706,1346821, pH<2,5.0 mL Purged +	21 Jul 2023	18:27
1346822	1.00	1.00	1.00	273706,1346822, pH<2,5.0 mL Purged +	21 Jul 2023	18:54
1346823	1.00	1.00	1.00	273706,1346823, pH<2,5.0 mL Purged +	21 Jul 2023	19:21
1346824	1.00	1.00	1.00	273706,1346824, pH<2,5.0 mL Purged +	21 Jul 2023	19:50
1346825	1.00	1.00	1.00	273706,1346825, pH<2,5.0 mL Purged +	21 Jul 2023	20:18
1347302	1.00	1.00	1.00	273706,1347302, pH<2,5.0 mL Purged +	21 Jul 2023	20:45
1347303	1.00	1.00	1.00	273706,1347303, pH 6,5.0 mL Purged +	21 Jul 2023	21:12
1347304	1.00	1.00	1.00	273706,1347304, pH 6,5.0 mL Purged +	21 Jul 2023	21:40
1347758	1.00	1.00	1.00	273706,1347758,	21 Jul 2023	22:08

				pH<2,5.0 mL Purged +	
1347759	1.00	1.00	1.00	273706,1347759,	21 Jul 2023 22:36
				pH<2,5.0 mL Purged +	
1348146	1.00	1.00	1.00	273706,1348146,	21 Jul 2023 23:04
				pH<2,5.0 mL Purged +	
1348147	1.00	1.00	1.00	273706,1348147,	21 Jul 2023 23:31
				pH<2,5.0 mL Purged +	
1348148	1.00	1.00	1.00	273706,1348148,	21 Jul 2023 23:59
				pH<2,5.0 mL Purged +	
CCVF1	1.00	1.00	1.00	273706,CCVF,	22 Jul 2023 00:28
				10.0/100 ug/L, 5.0 m	
BFB2	1.00	1.00	1.00	BFB DIRECT INJ.	24 Jul 2023 07:09
				50 ng Inj.	
CCV2	1.00	1.00	1.00	273706,CCV,	24 Jul 2023 07:49
				10.0/100 ug/L, 5.0 m	
CCB1	1.00	1.00	1.00	273706,MBW,	24 Jul 2023 08:44
				pH<2, 5.0 mL Purged	
1346821M	1.00	1.00	1.00	273706,MSW1346821,	24 Jul 2023 09:12
				pH<2,5.0 mL Purged +	
1346821S	1.00	1.00	1.00	273706,MSDW1346821,	24 Jul 2023 09:40
				pH<2,5.0 mL Purged +	
CCVF2	1.00	1.00	1.00	273706,CCVF,	24 Jul 2023 10:07
				10.0/100 ug/L, 5.0 m	

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 18 Jul 2023
Instrument ID : VMS3 Time Analyzed : 12:58 pm
GC Column : DB-624 UI ID : VMS3(mm) Heated Purge (Y:N) : N

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1046073	7.70	778280	11.62	387548	14.91
UPPER LIMIT	2092146	8.20	1556560	12.12	775096	15.41
LOWER LIMIT	523037	7.20	389140	11.12	193774	14.41
File ID Sample						
1346820 273706,13	1019126	7.69	781089	11.61	378496	14.91
1346821 273706,13	1025327	7.69	775869	11.61	377071	14.91
1346821M 273706,MS	1068558	7.70	807279	11.61	409252	14.91
1346821S 273706,MS	1060187	7.69	796611	11.61	407556	14.91
1346822 273706,13	1031500	7.69	779610	11.61	376185	14.91
1346823 273706,13	1002159	7.70	757145	11.61	371425	14.91
1346824 273706,13	1020042	7.70	770222	11.61	376756	14.91
1346825 273706,13	992924	7.69	747288	11.61	367835	14.91
1347301 273706,13	1027539	7.69	771678	11.61	370279	14.91
1347302 273706,13	1016669	7.69	756490	11.61	367652	14.91
1347303 273706,13	1017987	7.70	769057	11.61	375897	14.91
1347304 273706,13	1010537	7.69	769889	11.61	371654	14.91
1347305 273706,13	1028001	7.70	781477	11.61	375461	14.91
1347757 273706,13	1023969	7.70	766024	11.61	374003	14.91
1347758 273706,13	1009894	7.70	757162	11.61	373212	14.91
1347759 273706,13	1032744	7.70	767727	11.61	376325	14.91
1348130 273706,13	1044434	7.69	777207	11.60	363879	14.91
1348146 273706,13	1024687	7.69	784502	11.61	378025	14.91
1348147 273706,13	1029132	7.69	768806	11.61	374247	14.91
1348148 273706,13	1011235	7.70	763818	11.61	369548	14.91
CCB1 273706,MB	1048511	7.70	805543	11.61	389621	14.91
CCV2 273706,CC	1084886	7.69	804789	11.61	411092	14.91
CCVF1 273706,CC	1034710	7.70	779980	11.61	402556	14.91
CCVF2 273706,CC	1079708	7.69	805468	11.61	412011	14.91
CCV-LCS1 273706,LC	1051828	7.69	780914	11.61	397436	14.91
MB1 273706,MB	1039035	7.70	787389	11.61	382410	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346820.D Vial: 7
Acq On : 21 Jul 2023 16:08 Operator: DGS-RLD
Sample : 273706,1346820, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:29:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1019126	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	781089	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	378496	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	257163	19.860	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	72196	20.296	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %			
61) SURRd8Tolule	9.70	98	1005974	20.191	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %			
83) SURR4BrFBenz	13.24	95	390538	20.199	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	6250	Below Cal #		44
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	6390	0.5040	ug/L	94
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346820.D Vial: 7
Acq On : 21 Jul 2023 16:08 Operator: DGS-RLD
Sample : 273706,1346820, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:29:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346820.D Vial: 7
Acq On : 21 Jul 2023 16:08 Operator: DGS-RLD
Sample : 273706,1346820, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:29:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

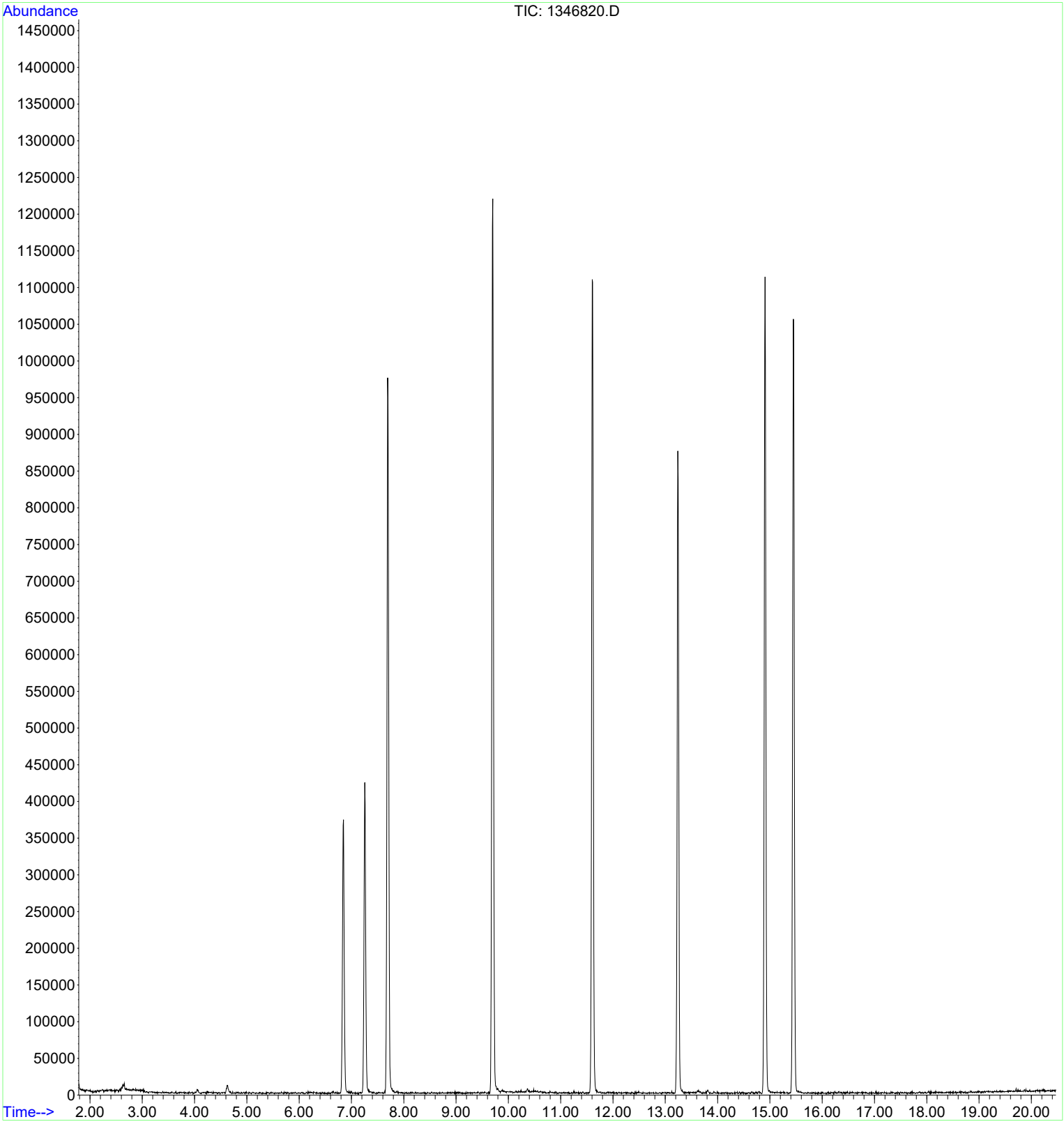
(#) = qualifier out of range (m) = manual integration

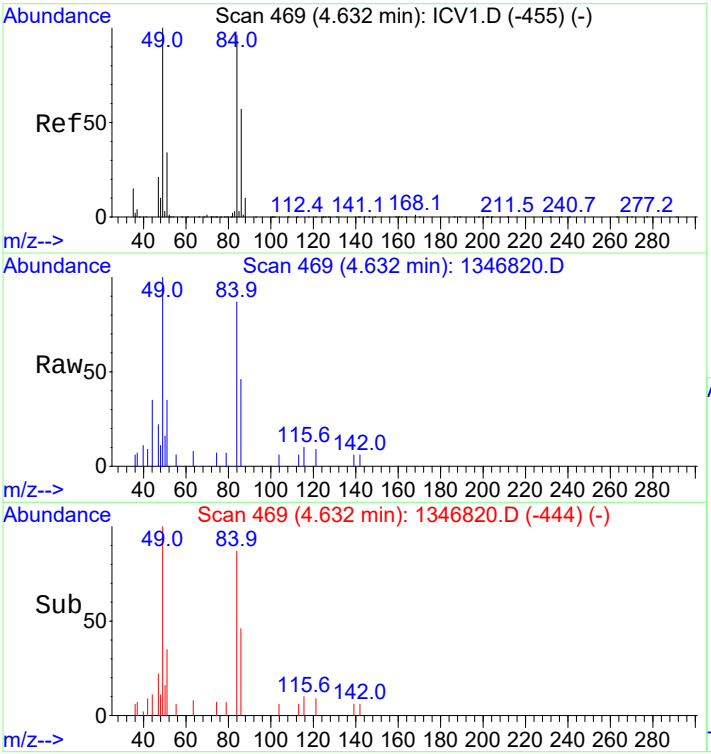
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346820.D Vial: 7
Acq On : 21 Jul 2023 16:08 Operator: DGS-RLD
Sample : 273706,1346820, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:29:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

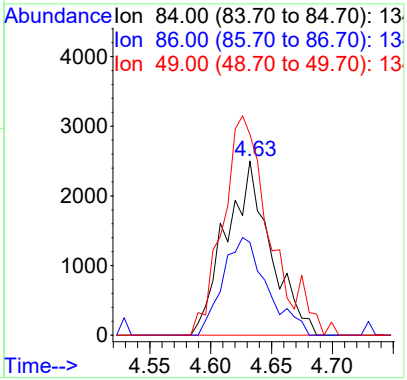




#20
Methylchlorid
Concen: 0.50 ug/L
RT: 4.63 min Scan# 469
Delta R.T. 0.00 min
Lab File: 1346820.D
Acq: 21 Jul 2023 16:08

Tgt Ion: 84 Resp: 6390

Ion	Ratio	Lower	Upper
84	100		
86	55.6	45.3	85.3
49	132.6	115.6	155.6



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347301.D Vial: 8
Acq On : 21 Jul 2023 16:36 Operator: DGS-RLD
Sample : 273706,1347301, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:56:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1027539	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	771678	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	370279	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	258443	19.796	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	73846	20.590	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %			
61) SURRd8Tolule	9.70	98	992695	19.762	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %			
83) SURR4BrFBenz	13.24	95	386120	20.414	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	6686	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	6485	0.5079	ug/L	96
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347301.D Vial: 8
Acq On : 21 Jul 2023 16:36 Operator: DGS-RLD
Sample : 273706,1347301, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:56:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23Dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	0.00	75	0	N.D.	
60) 4Meth2Pentan	0.00	43	0	N.D.	
62) Toluene	0.00	92	0	N.D.	
63) t13Dicloprop	0.00	75	0	N.D.	
64) ethylmethacrylate	0.00	69	0	N.D.	
65) 112Triclotha	0.00	83	0	N.D.	
66) Tetrachlorte	0.00	166	0	N.D.	
67) 13Diclorpropa	0.00	76	0	N.D.	
69) 2Hexanone	0.00	43	0	N.D.	
70) Clorodibrmta	0.00	129	0	N.D.	
71) 12Dibrometha	0.00	107	0	N.D.	
72) Chlorobenzen	0.00	112	0	N.D.	
73) 1Clhexane	11.60	91	2596	N.D.	
74) 1112Tetclota	0.00	131	0	N.D.	
75) Ethylbenzene	0.00	91	0	N.D.	
76) m p-Xylene	0.00	106	0	N.D.	
77) o-Xylene	0.00	106	0	N.D.	
78) Styrene	0.00	104	0	N.D.	
79) Bromoform	0.00	173	0	N.D.	
80) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
84) Bromobenzene	0.00	156	0	N.D.	
85) 1122Tetrclta	0.00	83	0	N.D.	
86) 123Triclproa	0.00	75	0	N.D.	
87) 14dichloro2butene	0.00	53	0	N.D.	
88) n-Propylbenz	0.00	91	0	N.D.	
89) 2chlorotolue	0.00	91	0	N.D.	
90) 4chlorotolue	0.00	91	0	N.D.	
91) 135Trimebenz	0.00	105	0	N.D.	
92) tbutylbenzen	0.00	119	0	N.D.	
93) 124Trimetben	0.00	105	0	N.D.	
94) sbutylbenzen	0.00	105	0	N.D.	
95) 13Diclorbenz	0.00	146	0	N.D.	
96) pIsopropylto	0.00	119	0	N.D.	
97) 14dichlorobe	0.00	146	0	N.D.	
98) 12dichlorobe	0.00	146	0	N.D.	
99) nButylbenzen	0.00	91	0	N.D.	
100) 12dibromo3cl	0.00	157	0	N.D.	
101) 135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347301.D Vial: 8
Acq On : 21 Jul 2023 16:36 Operator: DGS-RLD
Sample : 273706,1347301, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:56:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

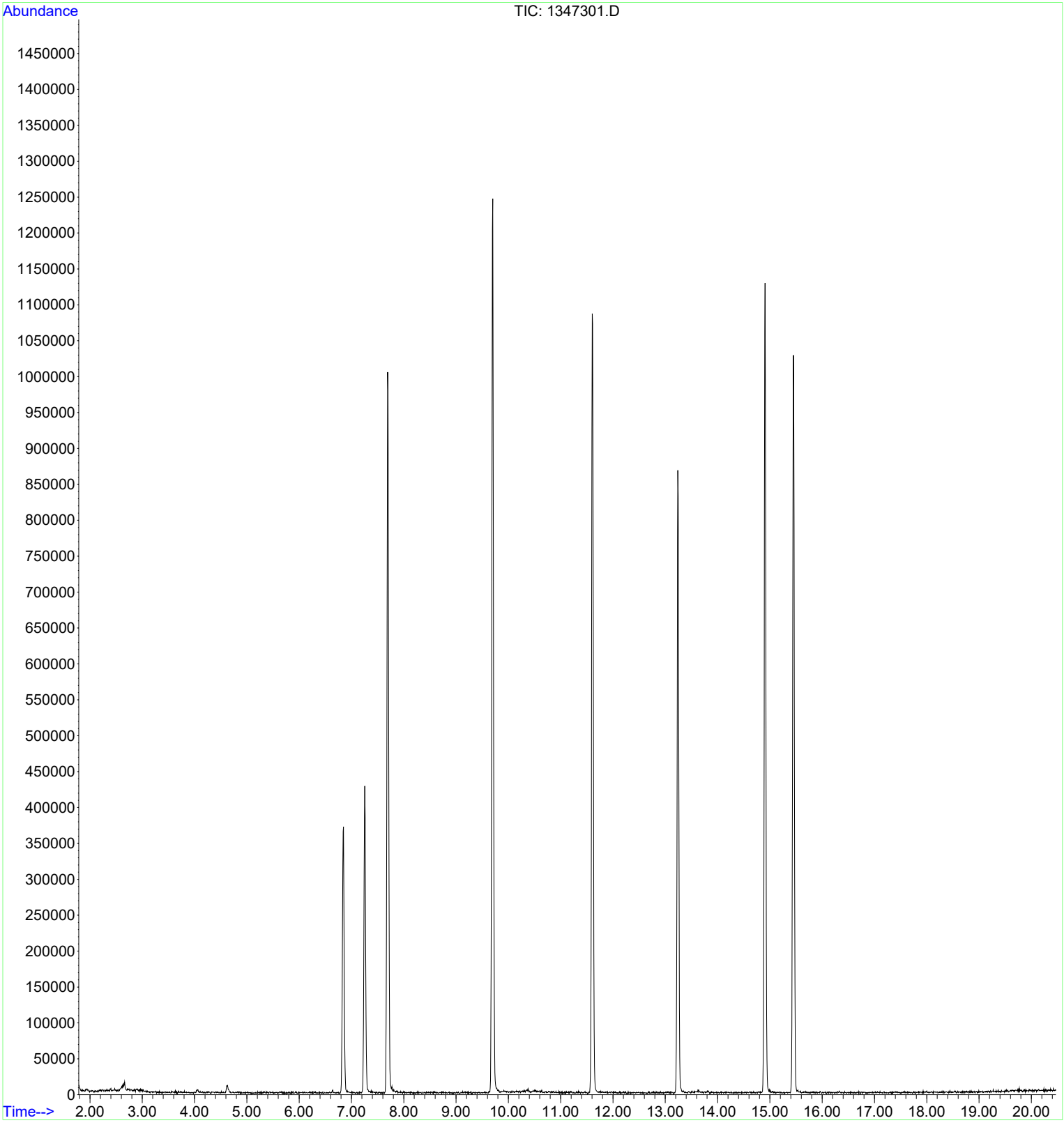
(#) = qualifier out of range (m) = manual integration

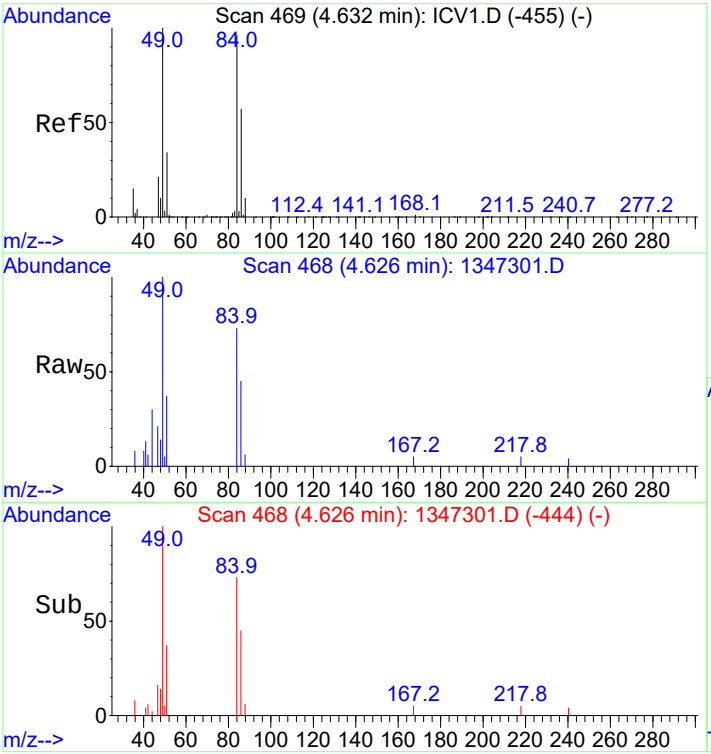
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347301.D Vial: 8
Acq On : 21 Jul 2023 16:36 Operator: DGS-RLD
Sample : 273706,1347301, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:56:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

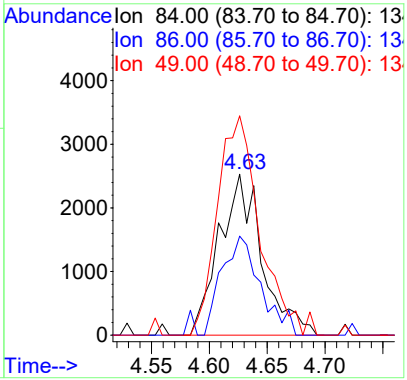




#20
Methylchlorid
Concen: 0.51 ug/L
RT: 4.63 min Scan# 468
Delta R.T. -0.01 min
Lab File: 1347301.D
Acq: 21 Jul 2023 16:36

Tgt Ion: 84 Resp: 6485

Ion	Ratio	Lower	Upper
84	100		
86	56.0	45.3	85.3
49	135.8	115.6	155.6



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347305.D Vial: 9
Acq On : 21 Jul 2023 17:03 Operator: DGS-RLD
Sample : 273706,1347305, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:24:07 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1028001	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	781477	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	375461	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	258408	19.784 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %		
45) SURR12DCAd4	7.26	102	73290	20.426 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.70	98	1015543	20.207 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.24	95	389029	20.284 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	32795	4.8845 ug/L	95
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.81	59	6297	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.27	72	2666	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347305.D Vial: 9
Acq On : 21 Jul 2023 17:03 Operator: DGS-RLD
Sample : 273706,1347305, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:24:07 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.65	83	8007	0.4188 ug/L	94
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23Dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	8.75	83	2646	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	0.00	75	0	N.D.	
60) 4Meth2Pentan	0.00	43	0	N.D.	
62) Toluene	9.79	92	2836	N.D.	
63) t13Dicloprop	0.00	75	0	N.D.	
64) ethylmethacrylate	0.00	69	0	N.D.	
65) 112Triclotha	0.00	83	0	N.D.	
66) Tetrachlorte	0.00	166	0	N.D.	
67) 13Diclorpropa	0.00	76	0	N.D.	
69) 2Hexanone	0.00	43	0	N.D.	
70) Clorodibrmta	0.00	129	0	N.D.	
71) 12Dibrometha	0.00	107	0	N.D.	
72) Chlorobenzen	0.00	112	0	N.D.	
73) 1Clhexane	0.00	91	0	N.D.	
74) 1112Tetclota	0.00	131	0	N.D.	
75) Ethylbenzene	11.81	91	57724	1.1070 ug/L	94
76) m p-Xylene	11.98	106	41355	2.0747 ug/L	94
77) o-Xylene	12.52	106	36903	1.8936 ug/L	98
78) Styrene	12.52	104	2553	N.D.	
79) Bromoform	0.00	173	0	N.D.	
80) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
84) Bromobenzene	0.00	156	0	N.D.	
85) 1122Tetrclta	0.00	83	0	N.D.	
86) 123Triclproa	0.00	75	0	N.D.	
87) 14dichloro2butene	0.00	53	0	N.D.	
88) n-Propylbenz	0.00	91	0	N.D.	
89) 2chlorotolue	0.00	91	0	N.D.	
90) 4chlorotolue	0.00	91	0	N.D.	
91) 135Trimebenz	0.00	105	0	N.D.	
92) tbutylbenzen	0.00	119	0	N.D.	
93) 124Trimetben	14.42	105	11531	0.3111 ug/L	74
94) sbutylbenzen	0.00	105	0	N.D.	
95) 13Diclorbenz	0.00	146	0	N.D.	
96) pIsopropylto	0.00	119	0	N.D.	
97) 14dichlorobe	0.00	146	0	N.D.	
98) 12dichlorobe	0.00	146	0	N.D.	
99) nButylbenzen	0.00	91	0	N.D.	
100) 12dibromo3cl	0.00	157	0	N.D.	
101) 135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347305.D Vial: 9
Acq On : 21 Jul 2023 17:03 Operator: DGS-RLD
Sample : 273706,1347305, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:24:07 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

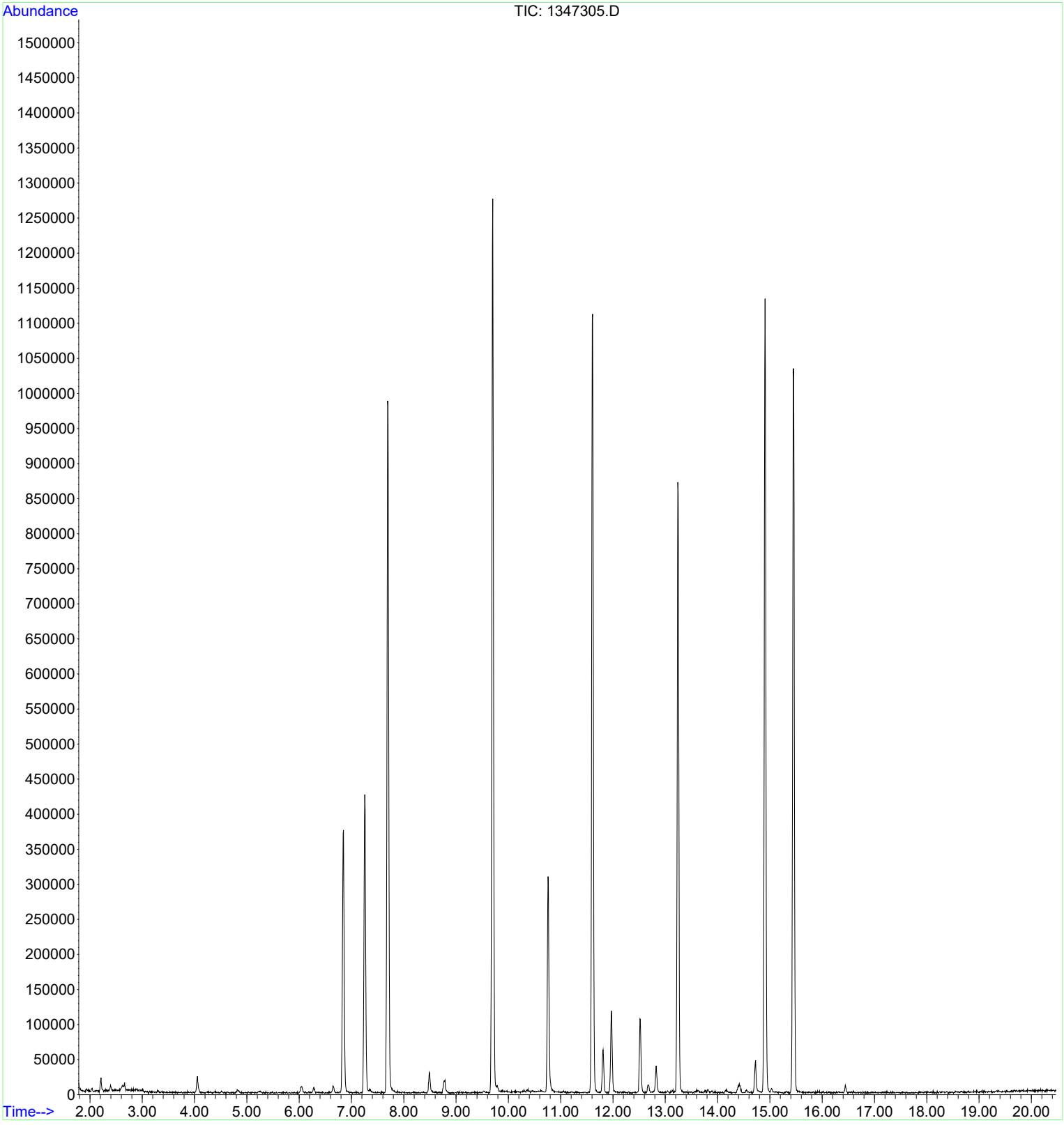
(#) = qualifier out of range (m) = manual integration

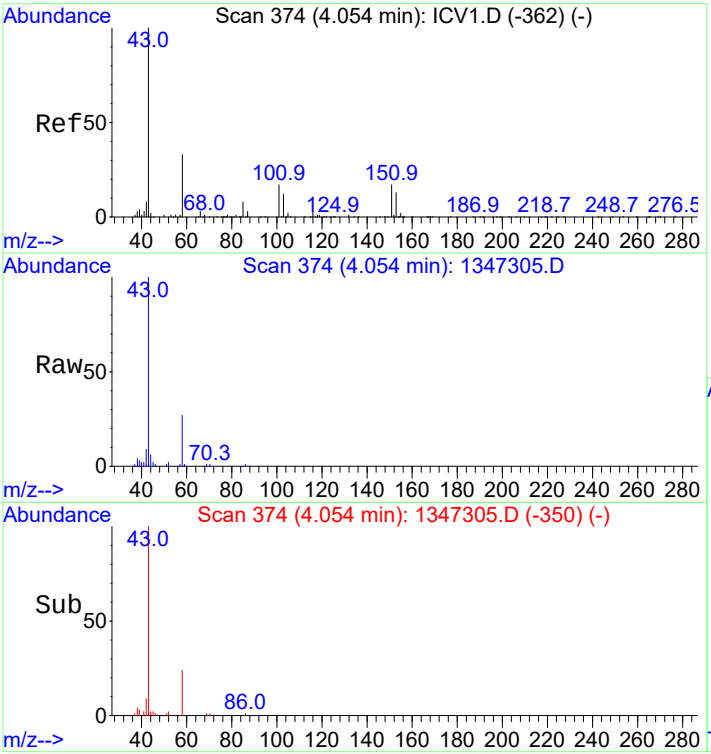
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347305.D Vial: 9
Acq On : 21 Jul 2023 17:03 Operator: DGS-RLD
Sample : 273706,1347305, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:24:07 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

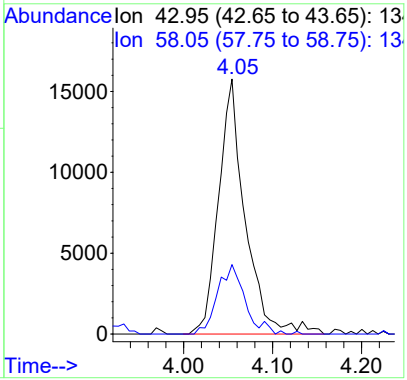


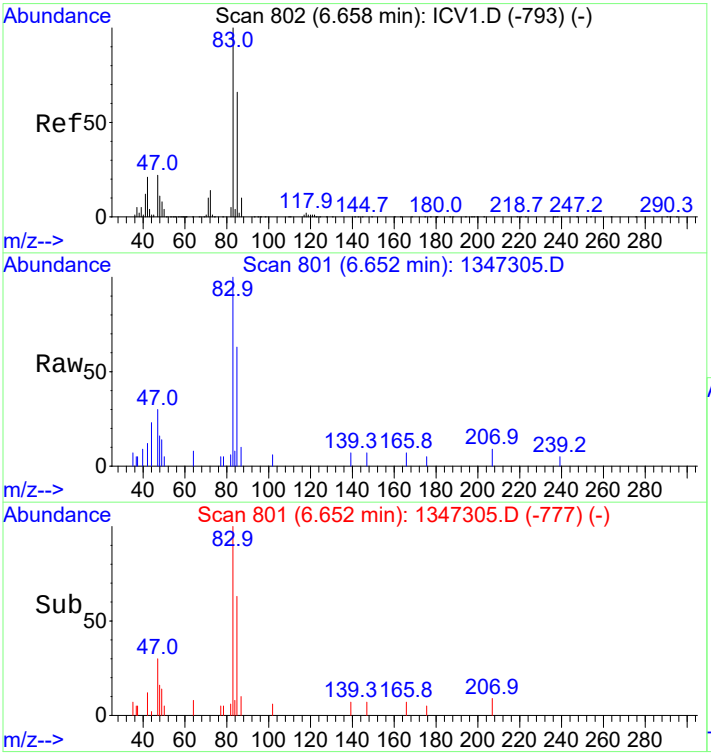


#15
Acetone
Concen: 4.88 ug/L
RT: 4.05 min Scan# 374
Delta R.T. -0.01 min
Lab File: 1347305.D
Acq: 21 Jul 2023 17:03

Tgt Ion: 43 Resp: 32795

Ion	Ratio	Lower	Upper
43	100		
58	28.0	10.7	50.7

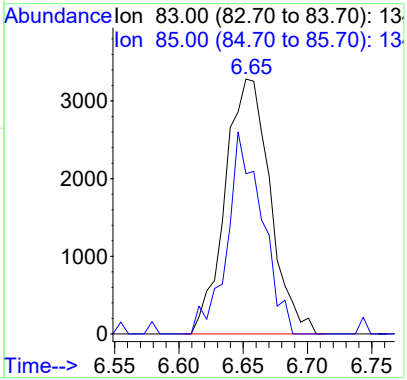


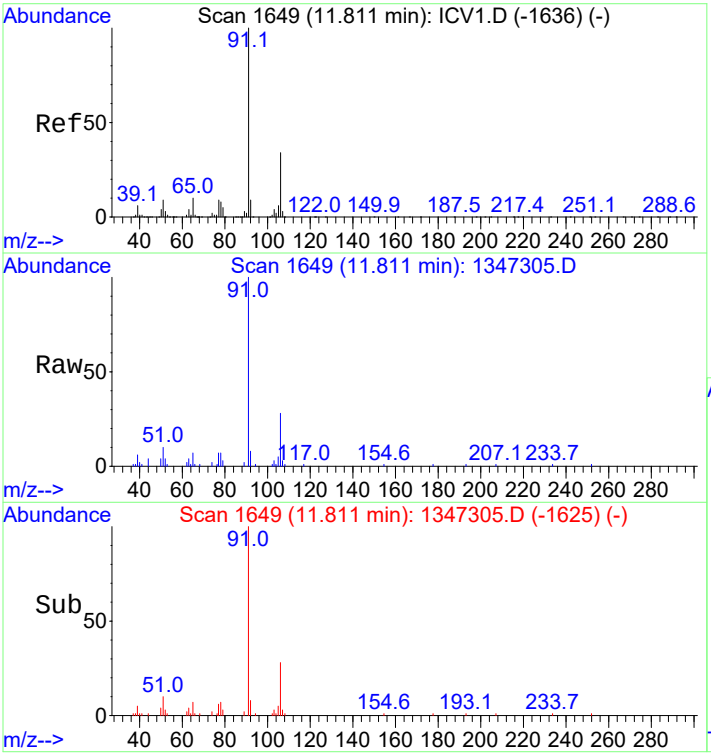


#39
Chloroform
Concen: 0.42 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.01 min
Lab File: 1347305.D
Acq: 21 Jul 2023 17:03

Tgt Ion: 83 Resp: 8007

Ion	Ratio	Lower	Upper
83	100		
85	61.4	45.9	85.9

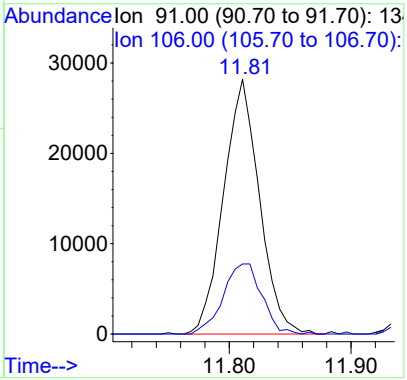


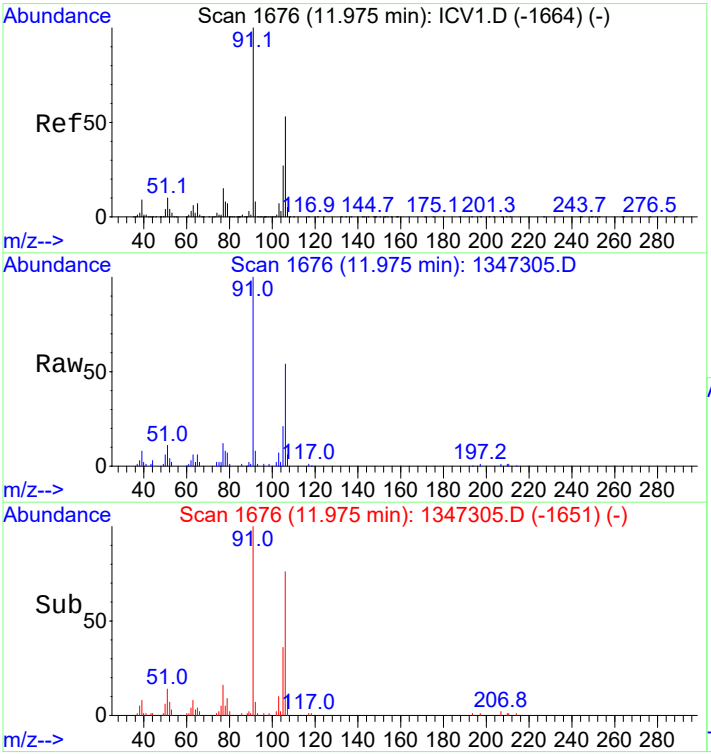


#75
Ethylbenzene
Concen: 1.11 ug/L
RT: 11.81 min Scan# 1649
Delta R.T. -0.01 min
Lab File: 1347305.D
Acq: 21 Jul 2023 17:03

Tgt Ion: 91 Resp: 57724

Ion	Ratio	Lower	Upper
91	100		
106	29.8	13.2	53.2

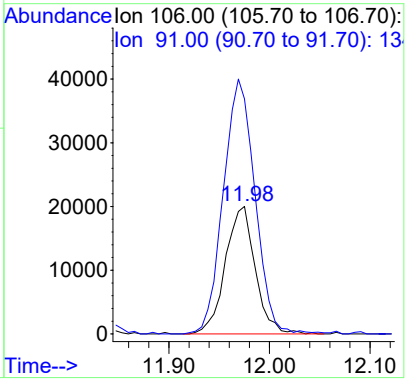


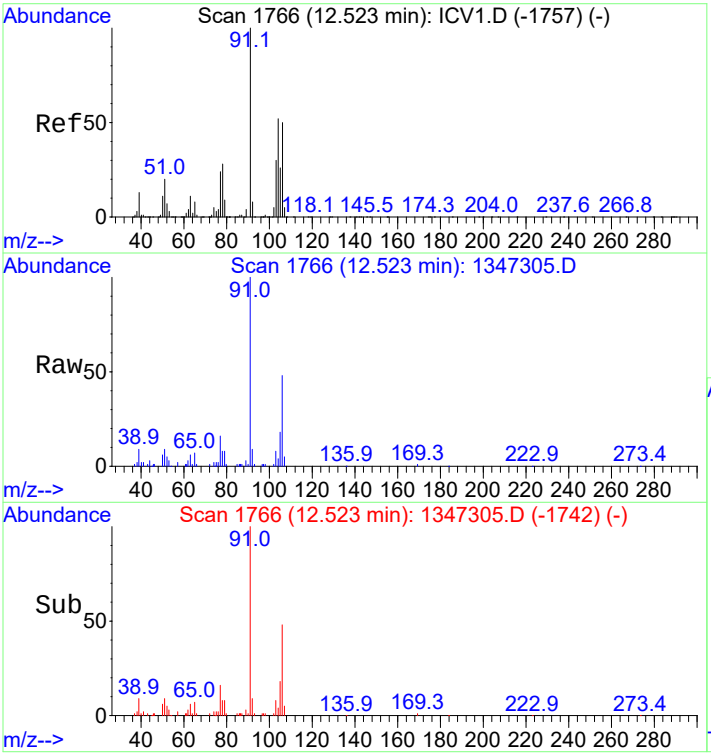


#76
m p-Xylene
Concen: 2.07 ug/L
RT: 11.98 min Scan# 1676
Delta R.T. 0.00 min
Lab File: 1347305.D
Acq: 21 Jul 2023 17:03

Tgt Ion:106 Resp: 41355

Ion	Ratio	Lower	Upper
106	100		
91	212.5	182.8	222.8

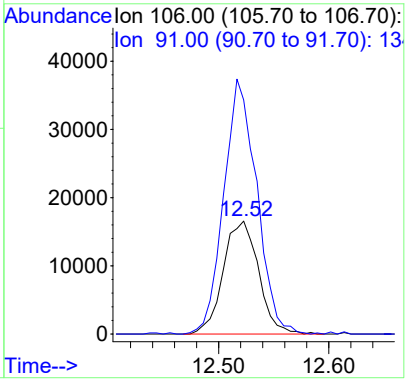




#77
o-Xylene
Concen: 1.89 ug/L
RT: 12.52 min Scan# 1766
Delta R.T. -0.01 min
Lab File: 1347305.D
Acq: 21 Jul 2023 17:03

Tgt Ion:106 Resp: 36903

Ion	Ratio	Lower	Upper
106	100		
91	210.8	193.5	233.5



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347757.D Vial: 10
Acq On : 21 Jul 2023 17:31 Operator: DGS-RLD
Sample : 273706,1347757, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:52:31 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1023969	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	766024	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	374003	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	256144	19.688	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.25	102	70680	19.776	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.70	98	1000212	19.981	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %			
83) SURR4BrFBenz	13.24	95	379229	19.850	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	7417	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	6709	0.5305	ug/L	85
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347757.D Vial: 10
Acq On : 21 Jul 2023 17:31 Operator: DGS-RLD
Sample : 273706,1347757, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:52:31 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23Dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	0.00	75	0	N.D.	
60) 4Meth2Pentan	0.00	43	0	N.D.	
62) Toluene	0.00	92	0	N.D.	
63) t13Dicloprop	0.00	75	0	N.D.	
64) ethylmethacrylate	0.00	69	0	N.D.	
65) 112Triclotha	0.00	83	0	N.D.	
66) Tetrachlorte	0.00	166	0	N.D.	
67) 13Diclorpropa	0.00	76	0	N.D.	
69) 2Hexanone	0.00	43	0	N.D.	
70) Clorodibrmta	0.00	129	0	N.D.	
71) 12Dibrometha	0.00	107	0	N.D.	
72) Chlorobenzen	0.00	112	0	N.D.	
73) 1Clhexane	0.00	91	0	N.D.	
74) 1112Tetclota	0.00	131	0	N.D.	
75) Ethylbenzene	0.00	91	0	N.D.	
76) m p-Xylene	0.00	106	0	N.D.	
77) o-Xylene	0.00	106	0	N.D.	
78) Styrene	0.00	104	0	N.D.	
79) Bromoform	0.00	173	0	N.D.	
80) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
84) Bromobenzene	0.00	156	0	N.D.	
85) 1122Tetrclta	0.00	83	0	N.D.	
86) 123Triclproa	0.00	75	0	N.D.	
87) 14dichloro2butene	0.00	53	0	N.D.	
88) n-Propylbenz	0.00	91	0	N.D.	
89) 2chlorotolue	0.00	91	0	N.D.	
90) 4chlorotolue	0.00	91	0	N.D.	
91) 135Trimebenz	0.00	105	0	N.D.	
92) tbutylbenzen	0.00	119	0	N.D.	
93) 124Trimetben	0.00	105	0	N.D.	
94) sbutylbenzen	0.00	105	0	N.D.	
95) 13Diclorbenz	0.00	146	0	N.D.	
96) pIsopropylto	0.00	119	0	N.D.	
97) 14dichlorobe	0.00	146	0	N.D.	
98) 12dichlorobe	0.00	146	0	N.D.	
99) nButylbenzen	0.00	91	0	N.D.	
100) 12dibromo3cl	0.00	157	0	N.D.	
101) 135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347757.D Vial: 10
Acq On : 21 Jul 2023 17:31 Operator: DGS-RLD
Sample : 273706,1347757, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:52:31 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

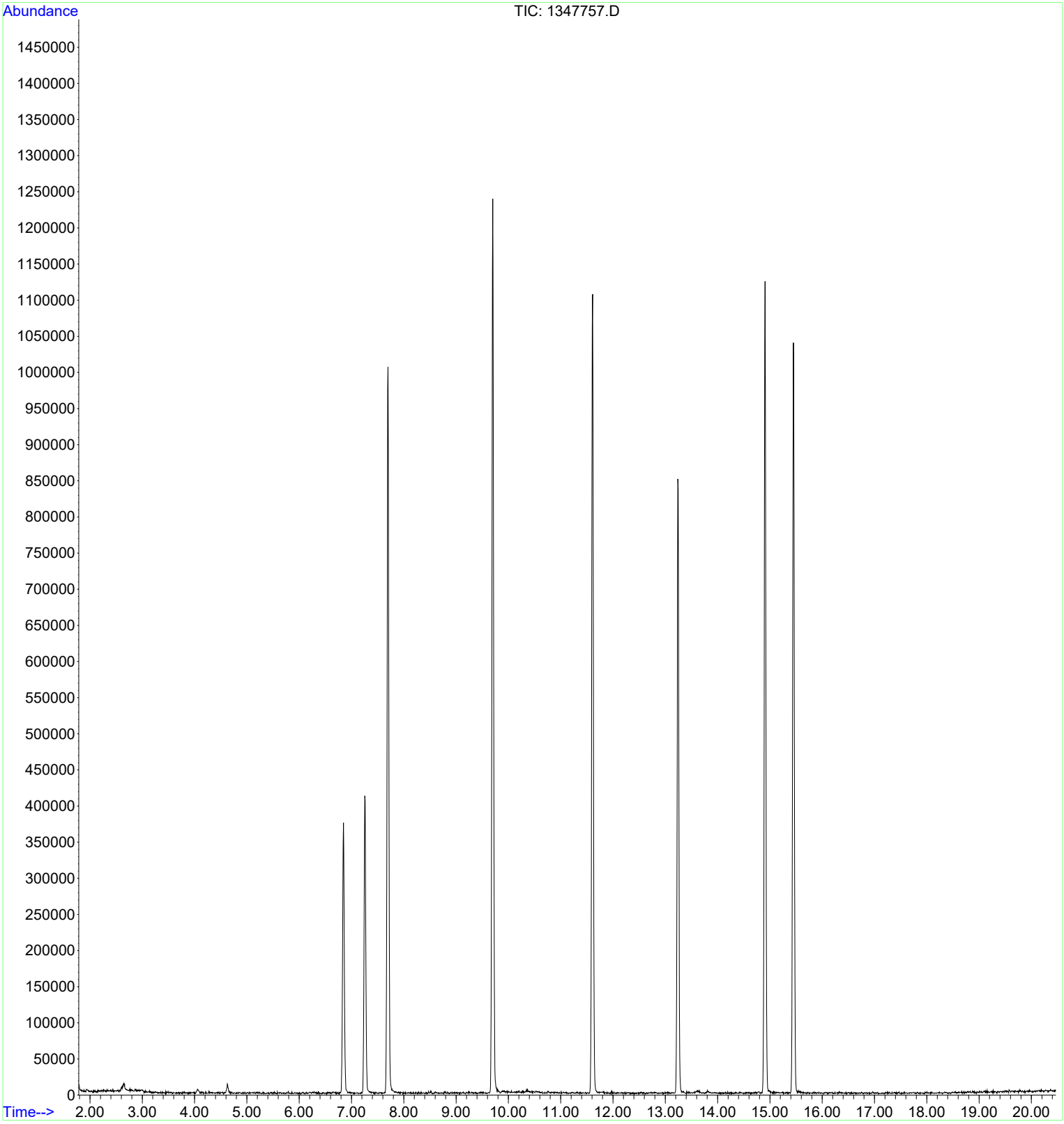
(#) = qualifier out of range (m) = manual integration

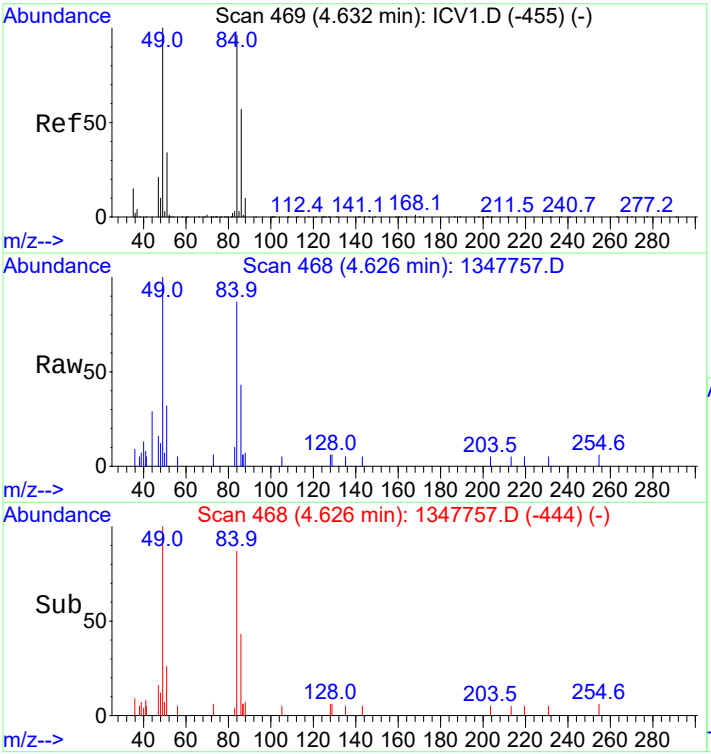
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347757.D Vial: 10
Acq On : 21 Jul 2023 17:31 Operator: DGS-RLD
Sample : 273706,1347757, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 17:52:31 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

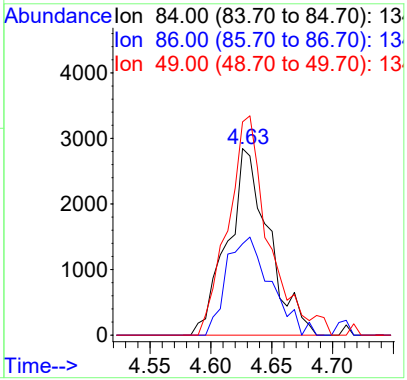




#20
Methylchlorid
Concen: 0.53 ug/L
RT: 4.63 min Scan# 468
Delta R.T. -0.01 min
Lab File: 1347757.D
Acq: 21 Jul 2023 17:31

Tgt Ion: 84 Resp: 6709

Ion	Ratio	Lower	Upper
84	100		
86	56.3	45.3	85.3
49	116.1	115.6	155.6



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348130.D Vial: 11
Acq On : 21 Jul 2023 18:00 Operator: DGS-RLD
Sample : 273706,1348130, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:20:34 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1044434	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	777207	20.00	ug/L	-0.01 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	363879	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	258309	19.465	ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 97	%		
45) SURR12DCAd4	7.25	102	72650	19.929	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1006566	19.714	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99	%		
83) SURR4BrFBenz	13.24	95	385235	20.725	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 104	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	3985	Below Cal #		44
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	8438	0.6739	ug/L	98
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348130.D Vial: 11
Acq On : 21 Jul 2023 18:00 Operator: DGS-RLD
Sample : 273706,1348130, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:20:34 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	11.81	91	7004	N.D.	
76)	m p-Xylene	11.97	106	7150	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348130.D Vial: 11
Acq On : 21 Jul 2023 18:00 Operator: DGS-RLD
Sample : 273706,1348130, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:20:34 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

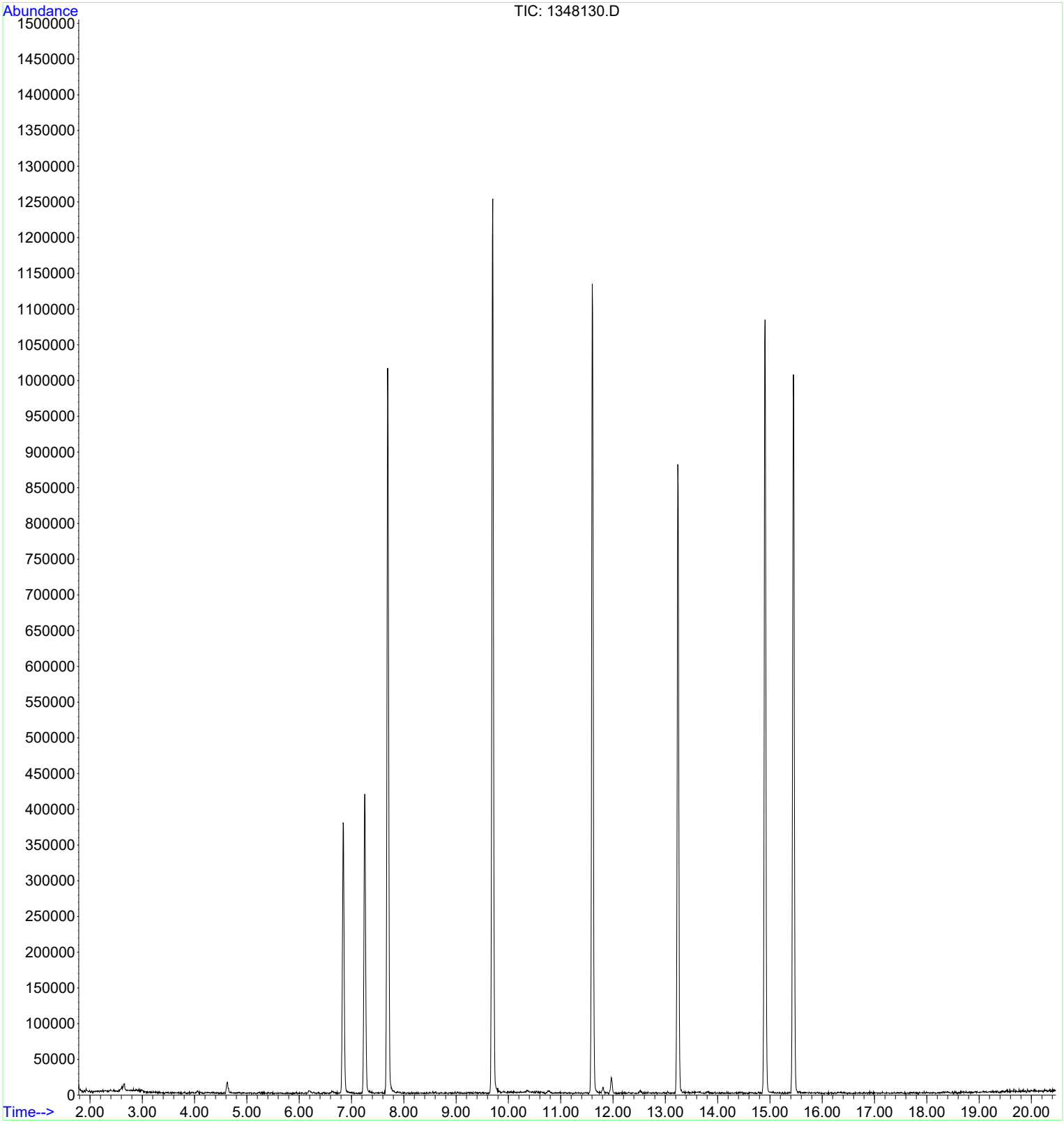
(#) = qualifier out of range (m) = manual integration

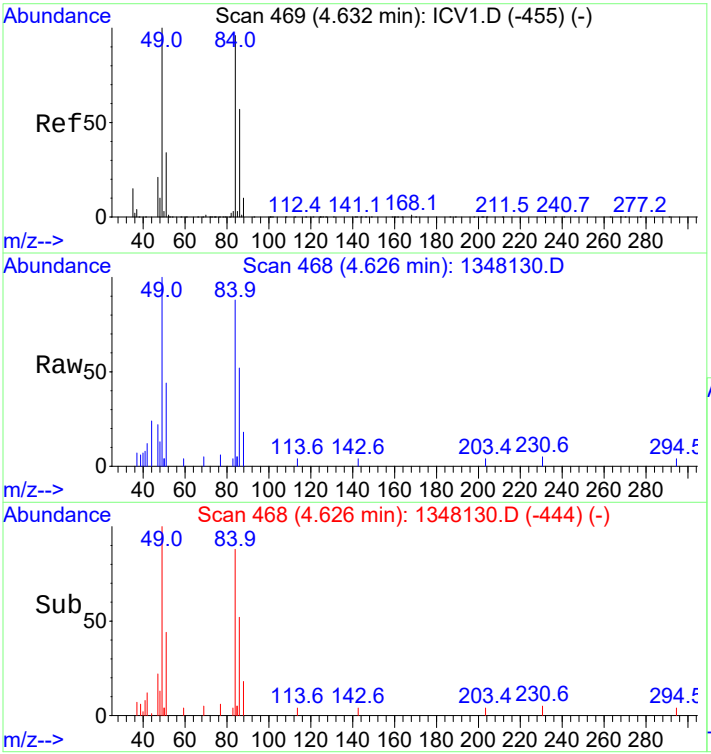
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348130.D Vial: 11
Acq On : 21 Jul 2023 18:00 Operator: DGS-RLD
Sample : 273706,1348130, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:20:34 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

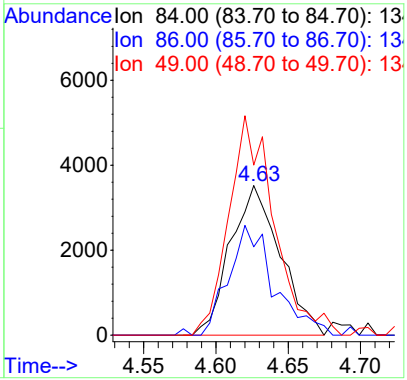




#20
Methylchlorid
Concen: 0.67 ug/L
RT: 4.63 min Scan# 468
Delta R.T. -0.01 min
Lab File: 1348130.D
Acq: 21 Jul 2023 18:00

Tgt Ion: 84 Resp: 8438

Ion	Ratio	Lower	Upper
84	100		
86	66.9	45.3	85.3
49	133.6	115.6	155.6



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821.D Vial: 12
Acq On : 21 Jul 2023 18:27 Operator: DGS-RLD
Sample : 273706,1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:48:03 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1025327	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	775869	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	377071	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	255220	19.591	ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.25	102	71139	19.878	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.70	98	1006757	20.085	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %			
83) SURR4BrFBenz	13.24	95	381255	19.793	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821.D Vial: 12
Acq On : 21 Jul 2023 18:27 Operator: DGS-RLD
Sample : 273706,1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:48:03 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.15	95	11022	0.9504	ug/L	94
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821.D Vial: 12
Acq On : 21 Jul 2023 18:27 Operator: DGS-RLD
Sample : 273706,1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:48:03 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

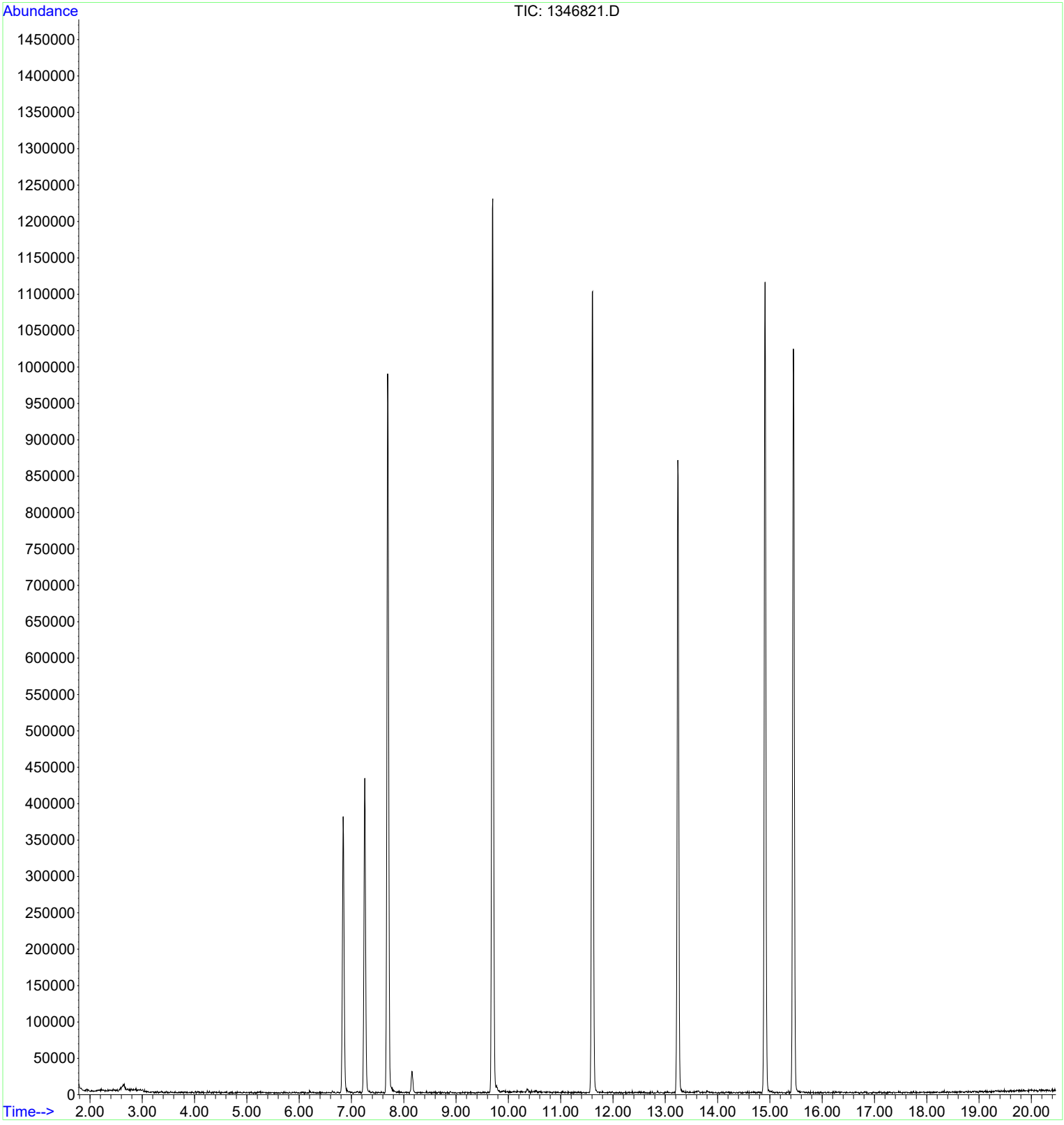
(#) = qualifier out of range (m) = manual integration

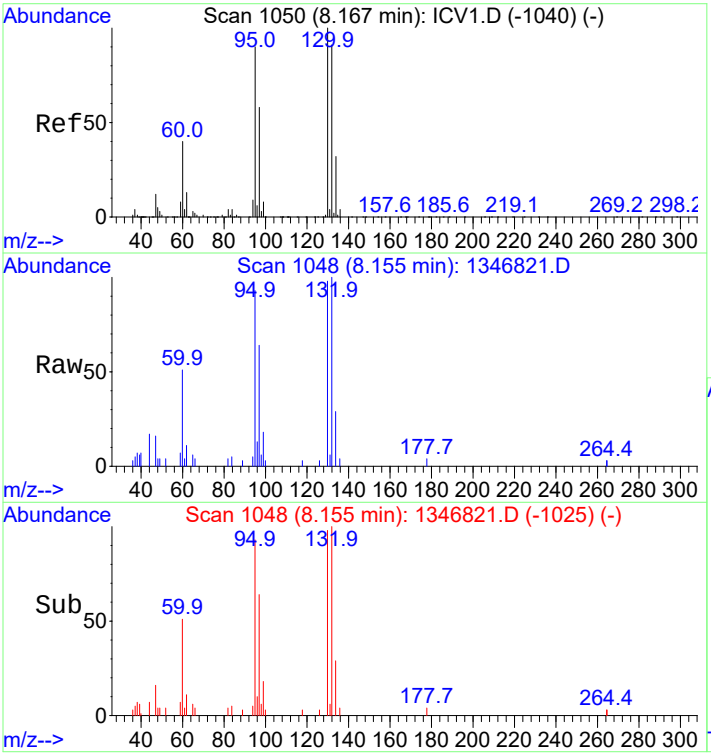
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821.D Vial: 12
Acq On : 21 Jul 2023 18:27 Operator: DGS-RLD
Sample : 273706,1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 18:48:03 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

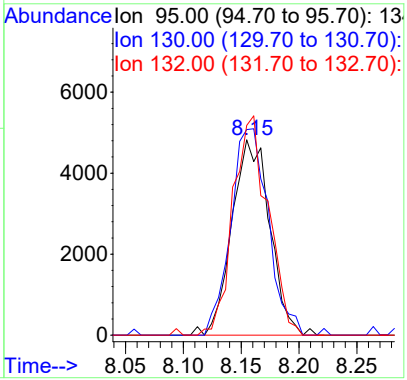




#49
trichloroete
Concen: 0.95 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1346821.D
Acq: 21 Jul 2023 18:27

Tgt Ion: 95 Resp: 11022

Ion	Ratio	Lower	Upper
95	100		
130	104.3	80.1	120.1
132	103.7	76.8	116.8



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346822.D Vial: 13
Acq On : 21 Jul 2023 18:54 Operator: DGS-RLD
Sample : 273706,1346822, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:15:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1031500	20.00 ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	779610	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	376185	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	255925	19.527 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %		
45) SURR12DCAd4	7.25	102	73476	20.408 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.70	98	1006279	19.955 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.24	95	385049	20.037 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	4257	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346822.D Vial: 13
Acq On : 21 Jul 2023 18:54 Operator: DGS-RLD
Sample : 273706,1346822, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:15:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.65	83	10409	0.5425	ug/L	93
40) 111trichlota	0.00	97	0	N.D.		
42) Cyclohexane	0.00	56	0	N.D.		
43) Carbtetraclo	7.11	119	65020	5.1665	ug/L	97
44) 11dicloprope	0.00	110	0	N.D.		
46) Benzene	0.00	78	0	N.D.		
47) 12dichlorota	0.00	62	0	N.D.		
48) TAME	0.00	73	0	N.D.		
49) trichloroete	8.16	95	10394	0.8909	ug/L	99
50) methylcyclohexane	0.00	83	0	N.D.		
51) 12dicloropra	0.00	63	0	N.D.		
52) 23Dicl1propene	0.00	75	0	N.D.		
53) Dibromometha	0.00	93	0	N.D.		
54) methylmethacrylate	0.00	69	0	N.D.		
55) 14dioxane	0.00	88	0	N.D.		
56) Bromodiclrma	0.00	83	0	N.D.		
57) 2Nitropropane	0.00	43	0	N.D.		
58) 2CLEVE	0.00	63	0	N.D.		
59) c13dicloproe	0.00	75	0	N.D.		
60) 4Meth2Pentan	0.00	43	0	N.D.		
62) Toluene	0.00	92	0	N.D.		
63) t13Dicloprop	0.00	75	0	N.D.		
64) ethylmethacrylate	0.00	69	0	N.D.		
65) 112Triclotha	0.00	83	0	N.D.		
66) Tetrachlorte	0.00	166	0	N.D.		
67) 13Diclorpropa	0.00	76	0	N.D.		
69) 2Hexanone	0.00	43	0	N.D.		
70) Clorodibrmta	0.00	129	0	N.D.		
71) 12Dibrometha	0.00	107	0	N.D.		
72) Chlorobenzen	0.00	112	0	N.D.		
73) 1Clhexane	0.00	91	0	N.D.		
74) 1112Tetclota	0.00	131	0	N.D.		
75) Ethylbenzene	0.00	91	0	N.D.		
76) m p-Xylene	0.00	106	0	N.D.		
77) o-Xylene	0.00	106	0	N.D.		
78) Styrene	0.00	104	0	N.D.		
79) Bromoform	0.00	173	0	N.D.		
80) Isopropylben	0.00	105	0	N.D.		
81) cyclohexanone	0.00	55	0	N.D.		
84) Bromobenzene	0.00	156	0	N.D.		
85) 1122Tetrclta	0.00	83	0	N.D.		
86) 123Triclproa	0.00	75	0	N.D.		
87) 14dichloro2butene	0.00	53	0	N.D.		
88) n-Propylbenz	0.00	91	0	N.D.		
89) 2chlorotolue	0.00	91	0	N.D.		
90) 4chlorotolue	0.00	91	0	N.D.		
91) 135Trimebenz	0.00	105	0	N.D.		
92) tbutylbenzen	0.00	119	0	N.D.		
93) 124Trimetben	0.00	105	0	N.D.		
94) sbutylbenzen	0.00	105	0	N.D.		
95) 13Diclorbenz	0.00	146	0	N.D.		
96) pIsopropylto	0.00	119	0	N.D.		
97) 14dichlorobe	0.00	146	0	N.D.		
98) 12dichlorobe	0.00	146	0	N.D.		
99) nButylbenzen	0.00	91	0	N.D.		
100) 12dibromo3cl	0.00	157	0	N.D.		
101) 135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346822.D Vial: 13
Acq On : 21 Jul 2023 18:54 Operator: DGS-RLD
Sample : 273706,1346822, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:15:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

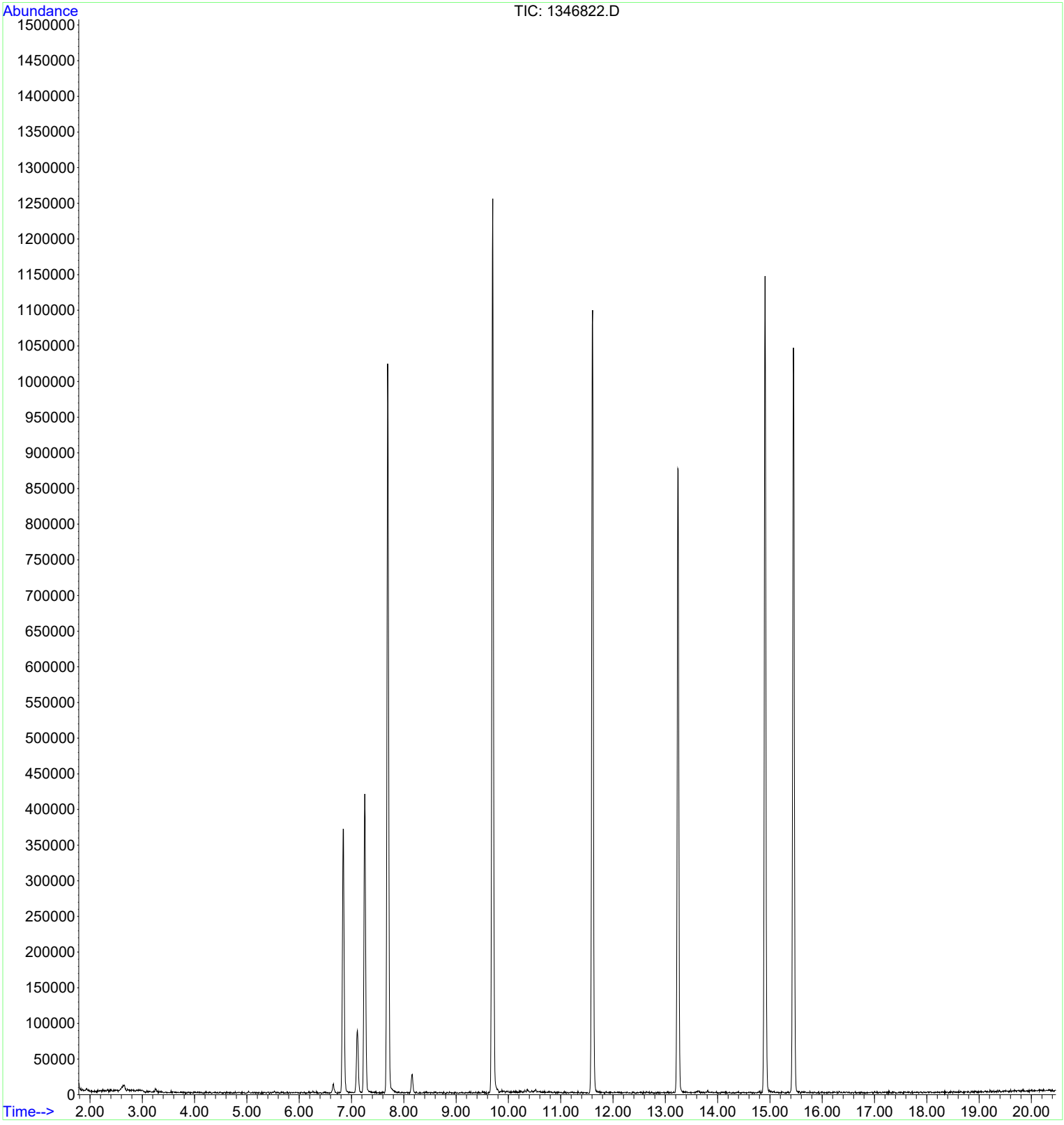
(#) = qualifier out of range (m) = manual integration

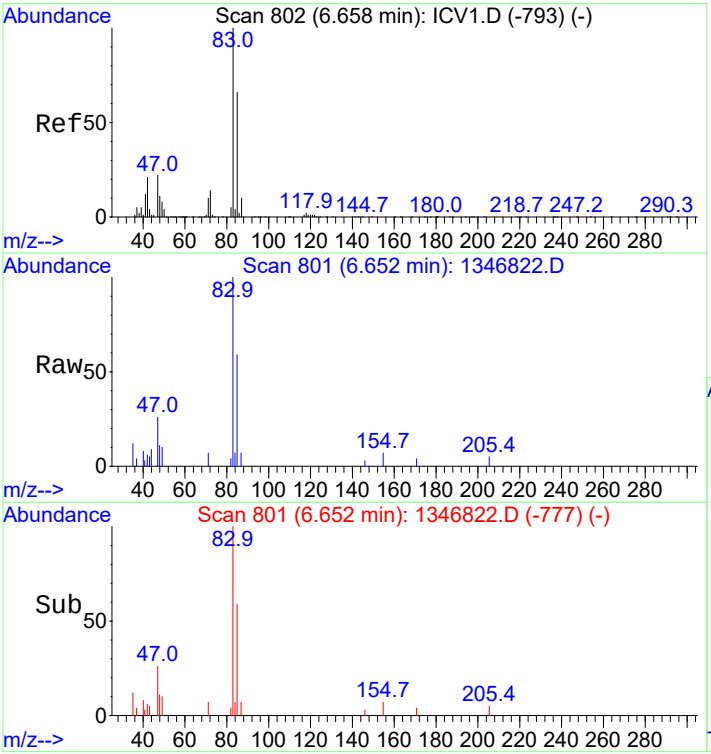
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346822.D Vial: 13
Acq On : 21 Jul 2023 18:54 Operator: DGS-RLD
Sample : 273706,1346822, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:15:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

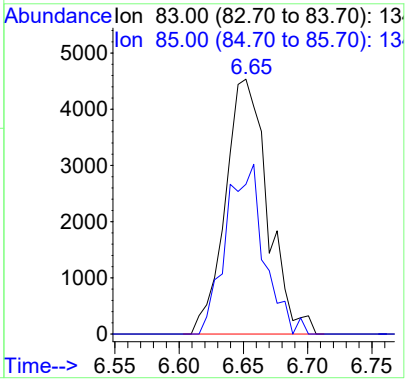


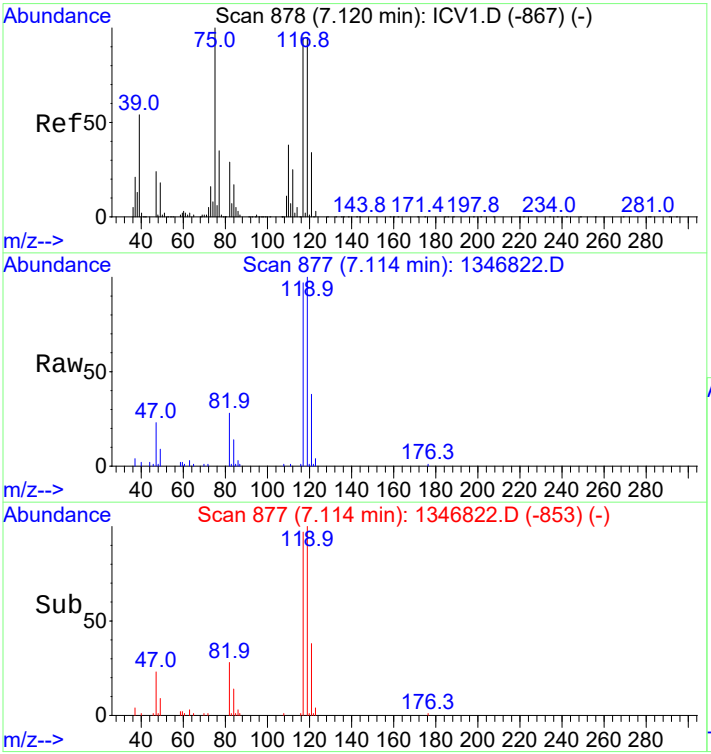


#39
Chloroform
Concen: 0.54 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.01 min
Lab File: 1346822.D
Acq: 21 Jul 2023 18:54

Tgt Ion: 83 Resp: 10409

Ion	Ratio	Lower	Upper
83	100		
85	60.0	45.9	85.9

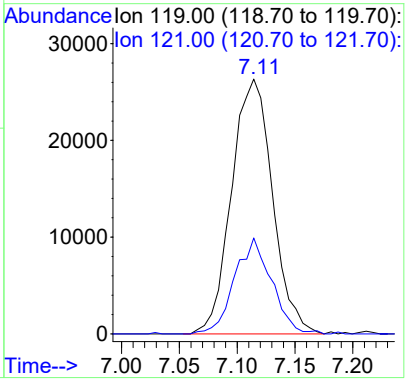


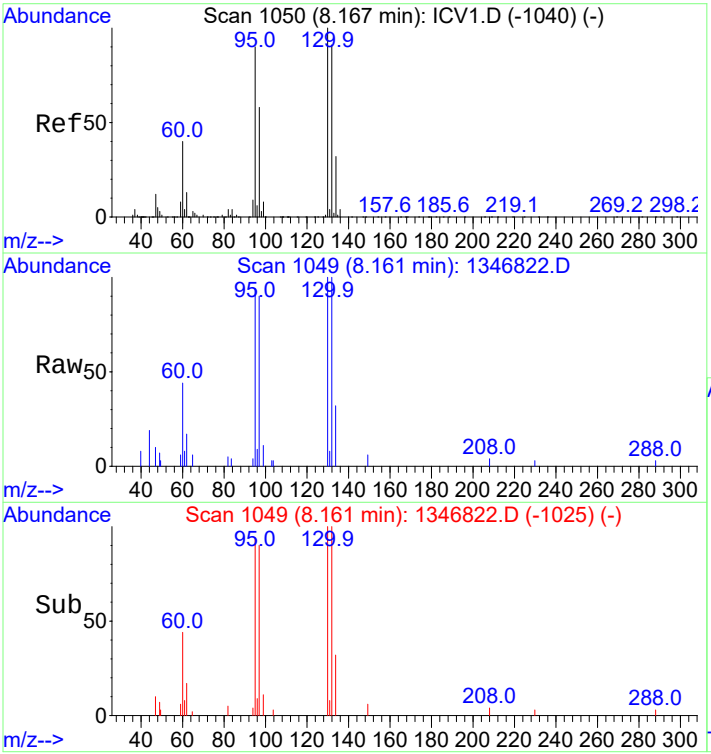


#43
Carbtetraclo
Concen: 5.17 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1346822.D
Acq: 21 Jul 2023 18:54

Tgt Ion:119 Resp: 65020

Ion	Ratio	Lower	Upper
119	100		
121	34.0	12.5	52.5

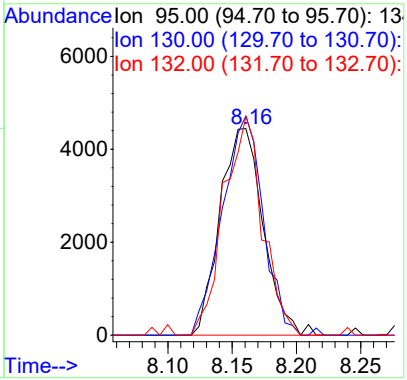




#49
trichloroete
Concen: 0.89 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.01 min
Lab File: 1346822.D
Acq: 21 Jul 2023 18:54

Tgt Ion: 95 Resp: 10394

Ion	Ratio	Lower	Upper
95	100		
130	100.2	80.1	120.1
132	95.8	76.8	116.8



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346823.D Vial: 14
Acq On : 21 Jul 2023 19:21 Operator: DGS-RLD
Sample : 273706,1346823, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:42:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1002159	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	757145	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	371425	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	257381	20.213 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.25	102	72398	20.698 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.70	98	986870	20.143 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	376358	19.836 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346823.D Vial: 14
Acq On : 21 Jul 2023 19:21 Operator: DGS-RLD
Sample : 273706,1346823, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:42:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	8574	0.7012	ug/L	98
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346823.D Vial: 14
Acq On : 21 Jul 2023 19:21 Operator: DGS-RLD
Sample : 273706,1346823, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:42:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

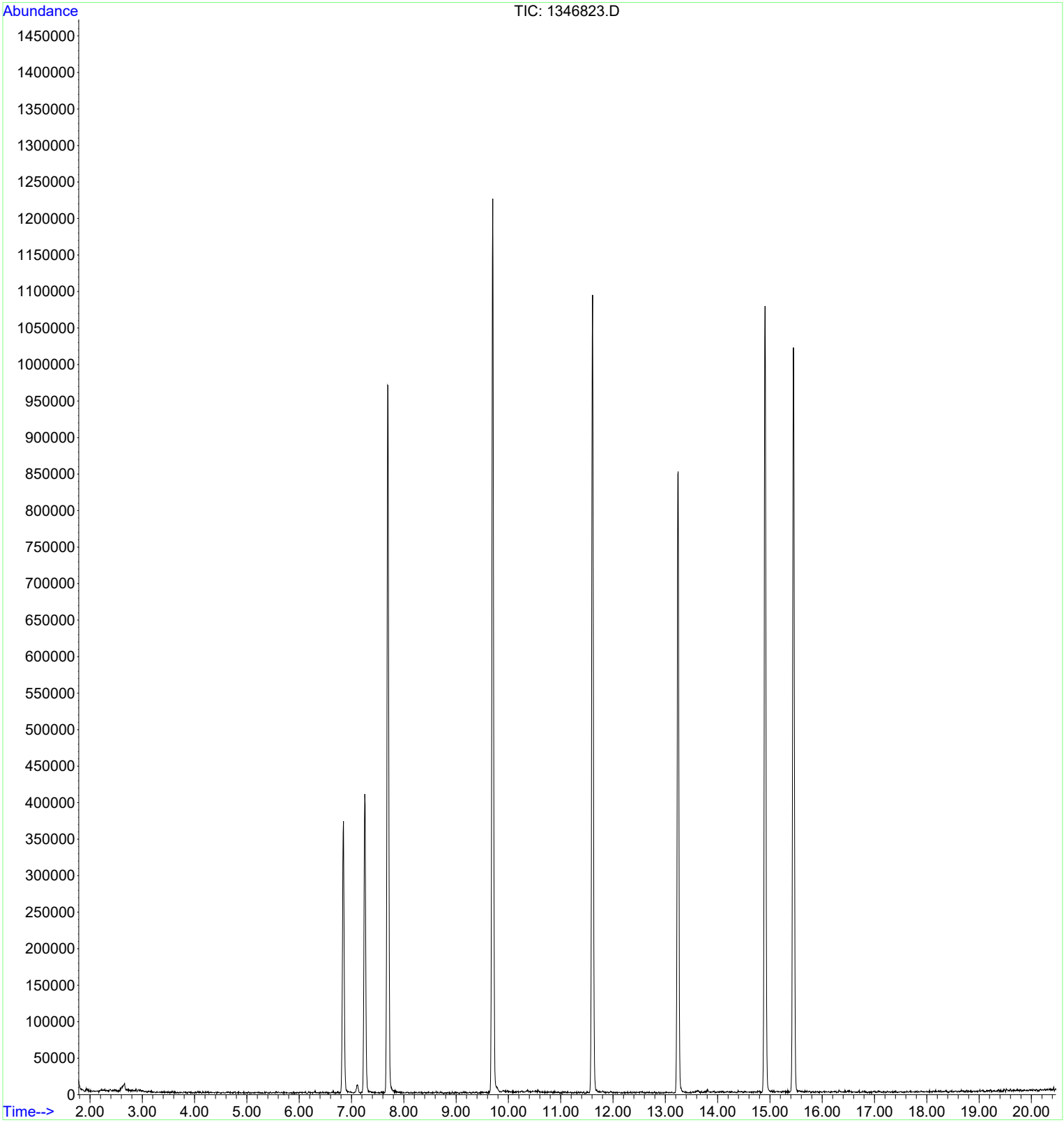
(#) = qualifier out of range (m) = manual integration

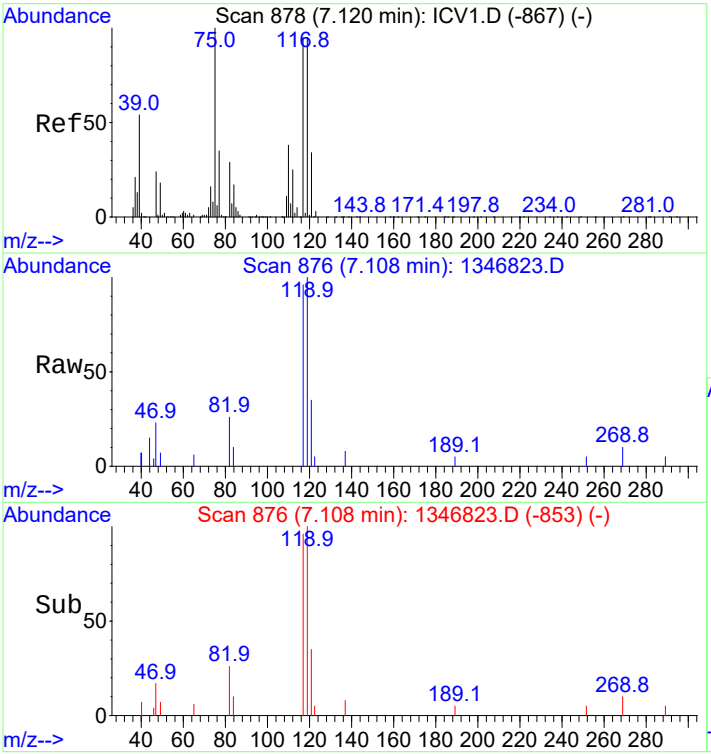
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346823.D Vial: 14
Acq On : 21 Jul 2023 19:21 Operator: DGS-RLD
Sample : 273706,1346823, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 19:42:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

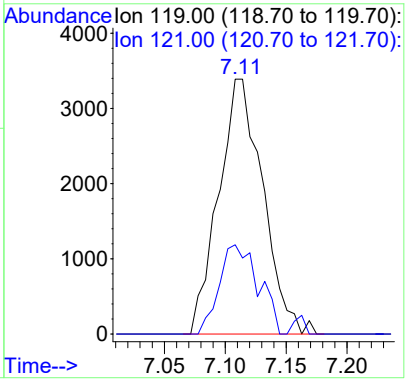




#43
Carbtetraclo
Concen: 0.70 ug/L
RT: 7.11 min Scan# 876
Delta R.T. -0.01 min
Lab File: 1346823.D
Acq: 21 Jul 2023 19:21

Tgt Ion:119 Resp: 8574

Ion	Ratio	Lower	Upper
119	100		
121	31.2	12.5	52.5



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346824.D Vial: 15
Acq On : 21 Jul 2023 19:50 Operator: DGS-RLD
Sample : 273706,1346824, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:10:41 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1020042	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	770222	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	376756	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	264282	20.392	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.25	102	72026	20.230	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	987688	19.806	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99	%		
83) SURR4BrFBenz	13.25	95	380033	19.746	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346824.D Vial: 15
Acq On : 21 Jul 2023 19:50 Operator: DGS-RLD
Sample : 273706,1346824, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:10:41 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	9527	0.7655	ug/L	98
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346824.D Vial: 15
Acq On : 21 Jul 2023 19:50 Operator: DGS-RLD
Sample : 273706,1346824, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:10:41 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

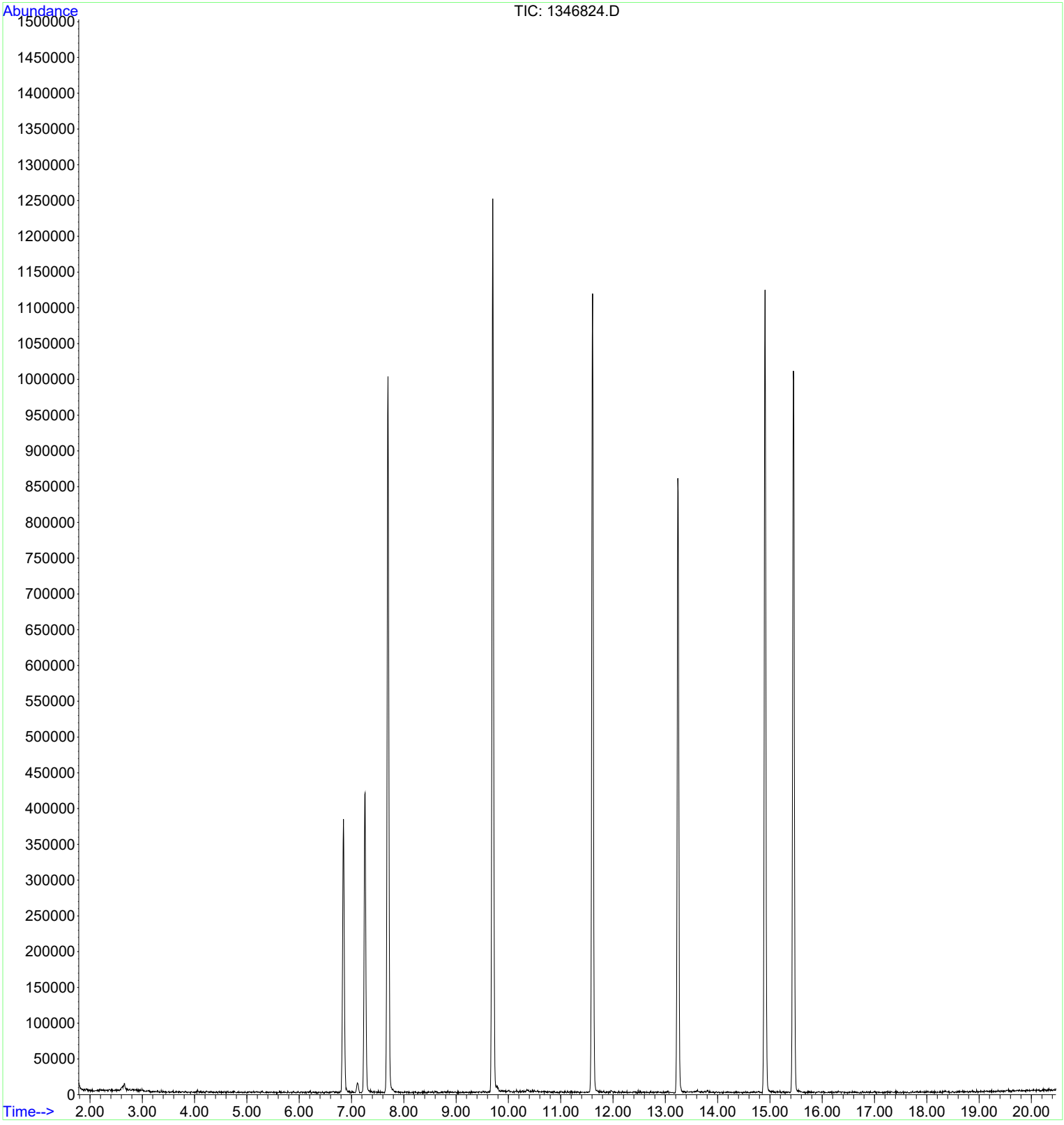
(#) = qualifier out of range (m) = manual integration

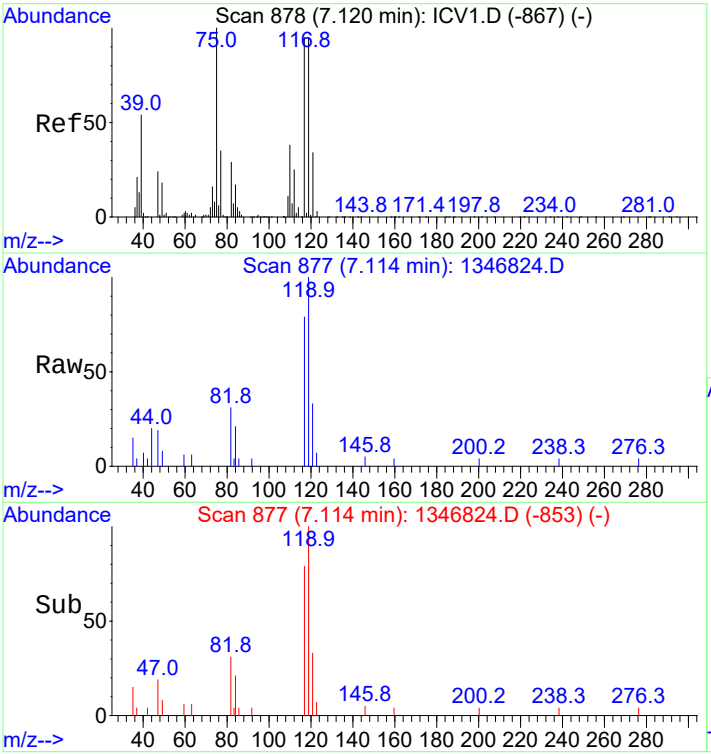
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346824.D Vial: 15
Acq On : 21 Jul 2023 19:50 Operator: DGS-RLD
Sample : 273706,1346824, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:10:41 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

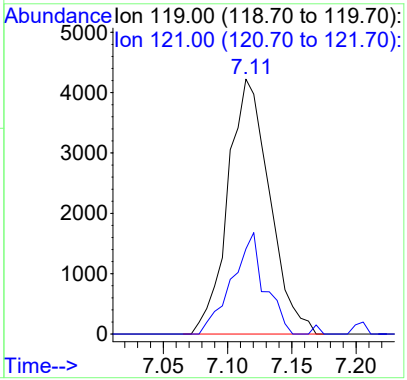




#43
Carbtetraclo
Concen: 0.77 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1346824.D
Acq: 21 Jul 2023 19:50

Tgt Ion:119 Resp: 9527

Ion	Ratio	Lower	Upper
119	100		
121	31.4	12.5	52.5



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346825.D Vial: 16
Acq On : 21 Jul 2023 20:18 Operator: DGS-RLD
Sample : 273706,1346825, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:38:59 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	992924	20.00 ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	747288	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	367835	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.84	113	253541	20.097 ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.25	102	71340	20.585 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.70	98	961352	19.805 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %		
83) SURR4BrFBenz	13.24	95	372160	19.806 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346825.D Vial: 16
Acq On : 21 Jul 2023 20:18 Operator: DGS-RLD
Sample : 273706,1346825, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:38:59 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346825.D Vial: 16
Acq On : 21 Jul 2023 20:18 Operator: DGS-RLD
Sample : 273706,1346825, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:38:59 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

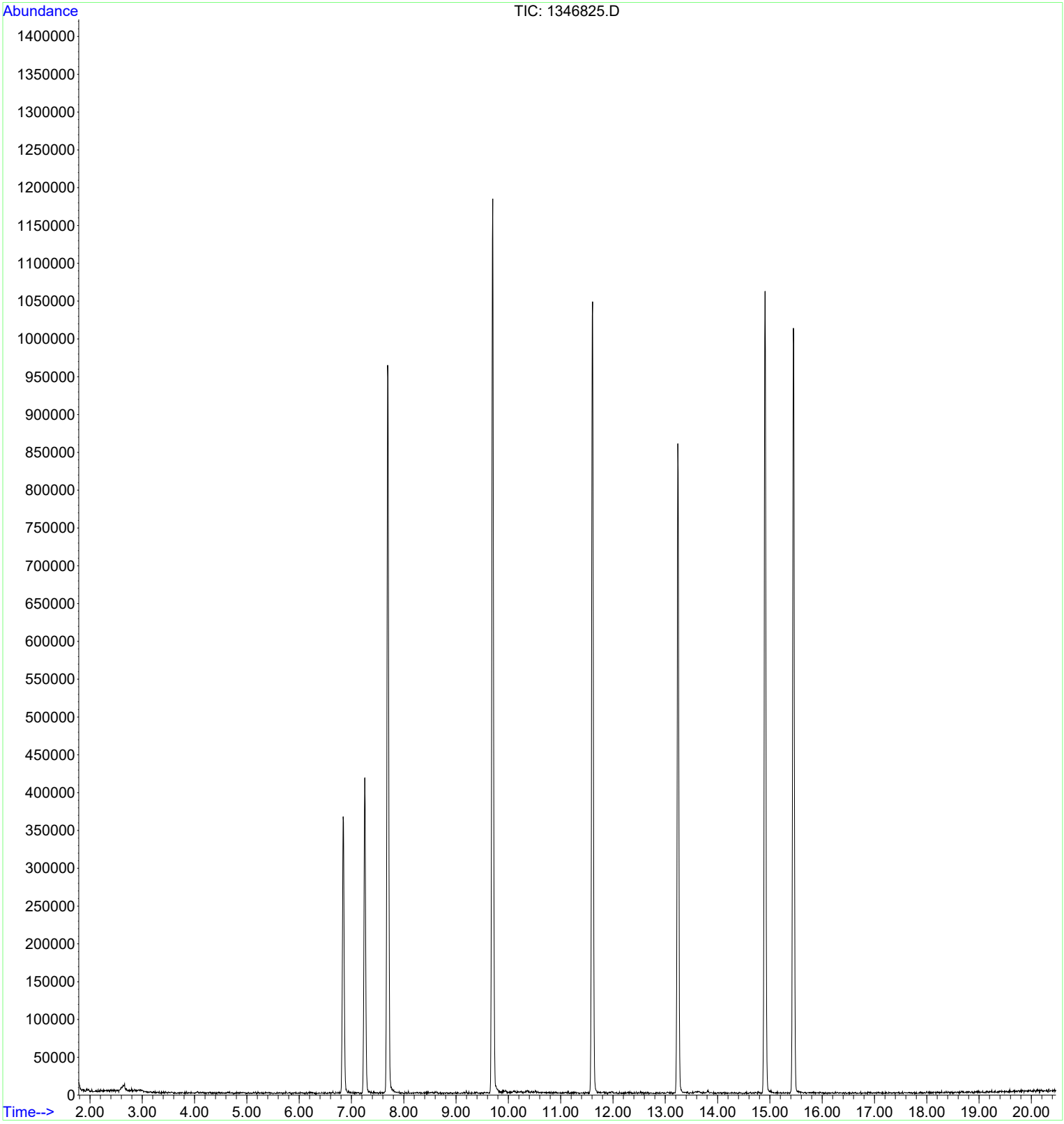
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346825.D Vial: 16
Acq On : 21 Jul 2023 20:18 Operator: DGS-RLD
Sample : 273706,1346825, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 20:38:59 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347302.D Vial: 17
Acq On : 21 Jul 2023 20:45 Operator: DGS-RLD
Sample : 273706,1347302, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:06:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1016669	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	756490	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	367652	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	256737	19.875	ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	72822	20.522	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %			
61) SURRd8Tolule	9.70	98	984824	19.815	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %			
83) SURR4BrFBenz	13.24	95	376826	20.065	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.71	67	2879	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	0.00	43	0	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	5.53	63	58496	2.9892	ug/L	98
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	6.26	96	70407	5.8947	ug/L	93
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347302.D Vial: 17
Acq On : 21 Jul 2023 20:45 Operator: DGS-RLD
Sample : 273706,1347302, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:06:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	6.89	97	5415	0.3399	ug/L	90
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	7.35	78	8732	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.15	95	33407	2.9052	ug/L	98
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	10.53	166	6502	0.5221	ug/L	96
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	11.81	91	3757	N.D.		
76)	m p-Xylene	11.97	106	3606	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347302.D Vial: 17
Acq On : 21 Jul 2023 20:45 Operator: DGS-RLD
Sample : 273706,1347302, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:06:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

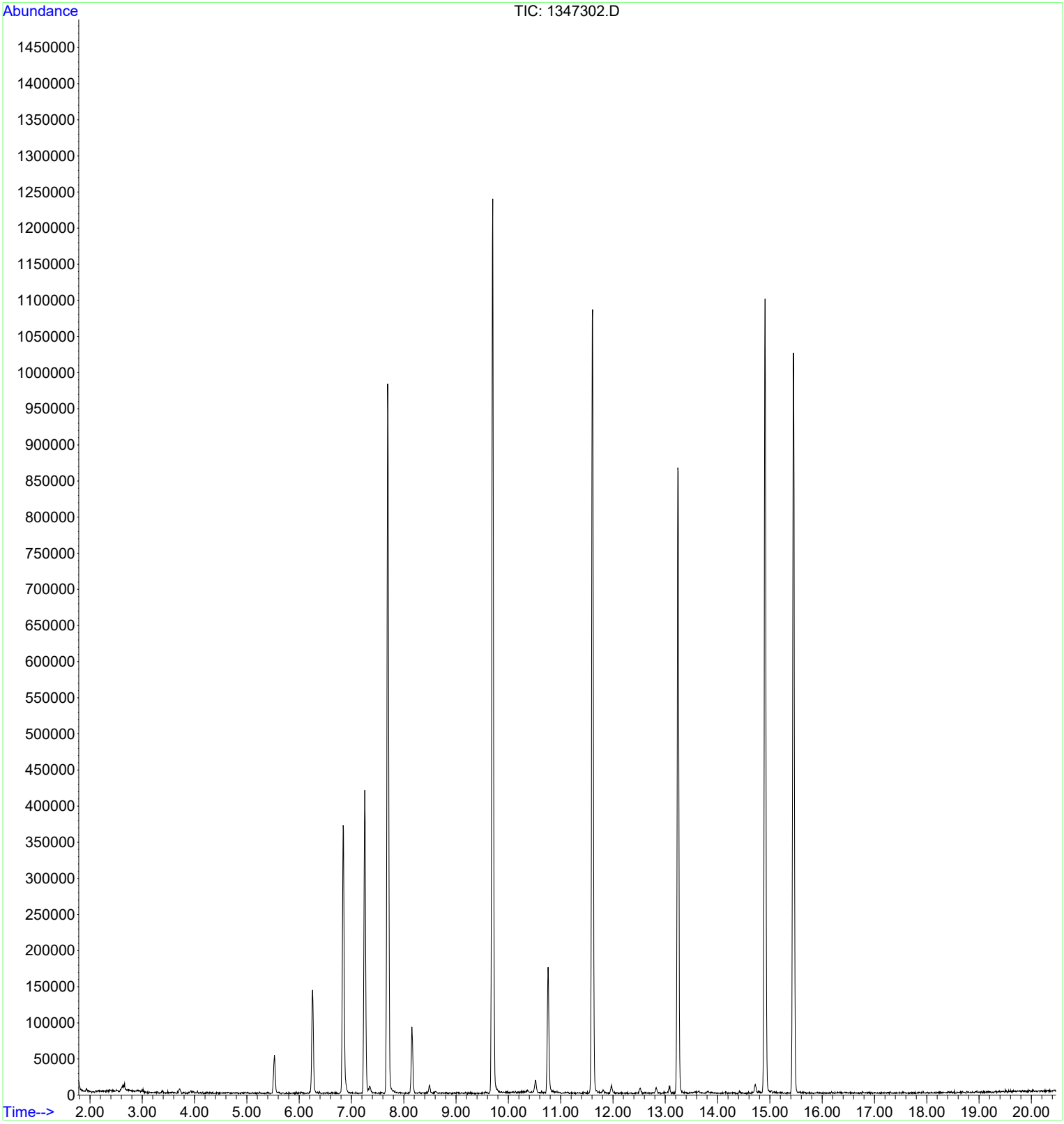
(#) = qualifier out of range (m) = manual integration

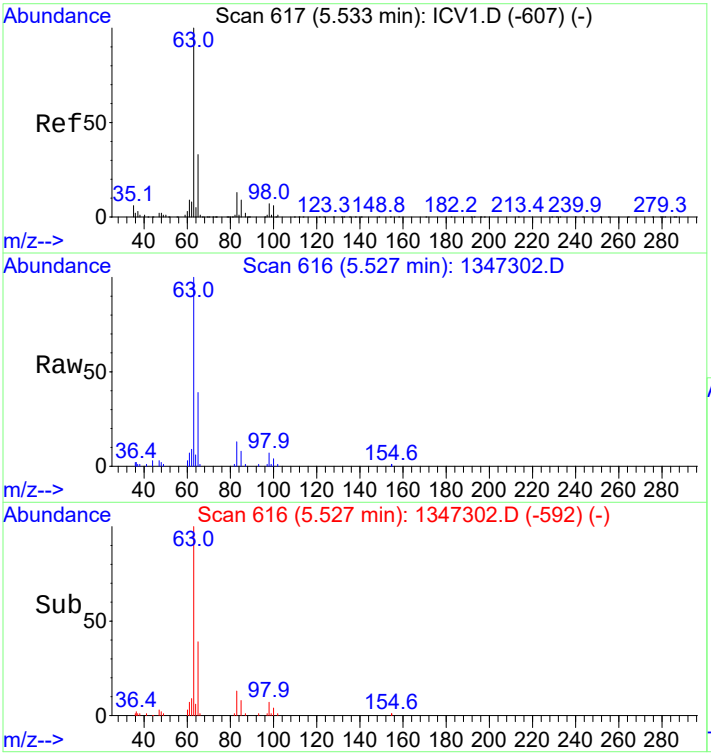
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347302.D Vial: 17
Acq On : 21 Jul 2023 20:45 Operator: DGS-RLD
Sample : 273706,1347302, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:06:22 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

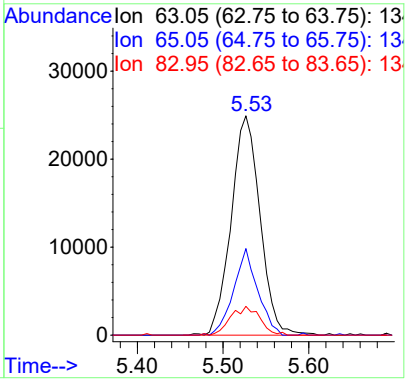


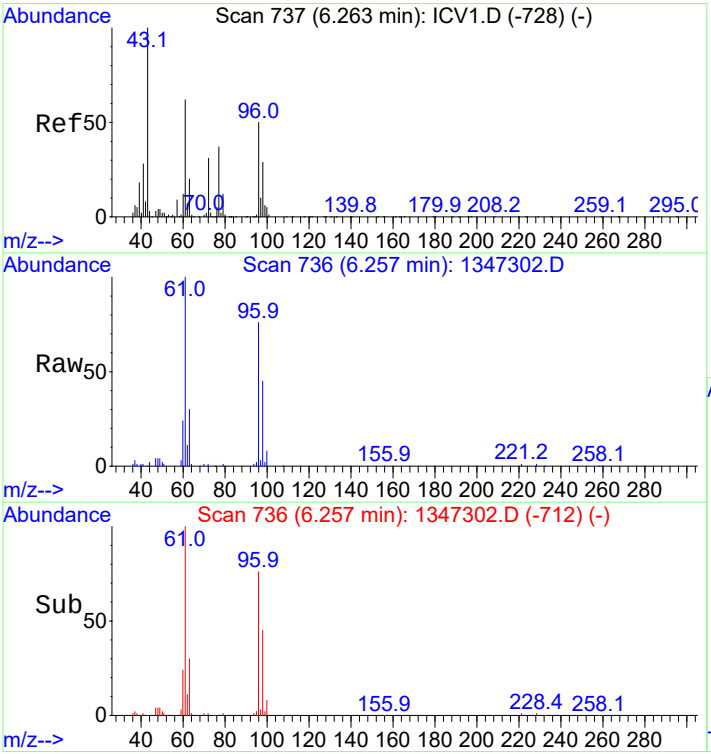


#26
11dichlorota
Concen: 2.99 ug/L
RT: 5.53 min Scan# 616
Delta R.T. -0.01 min
Lab File: 1347302.D
Acq: 21 Jul 2023 20:45

Tgt Ion: 63 Resp: 58496

Ion	Ratio	Lower	Upper
63	100		
65	32.9	11.7	51.7
83	13.3	0.0	33.4

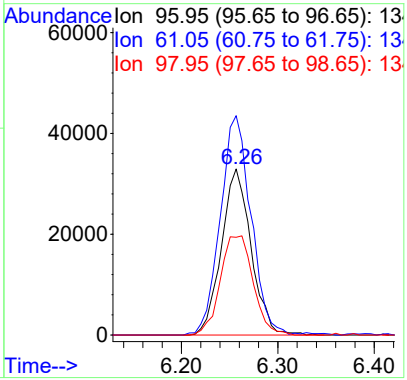


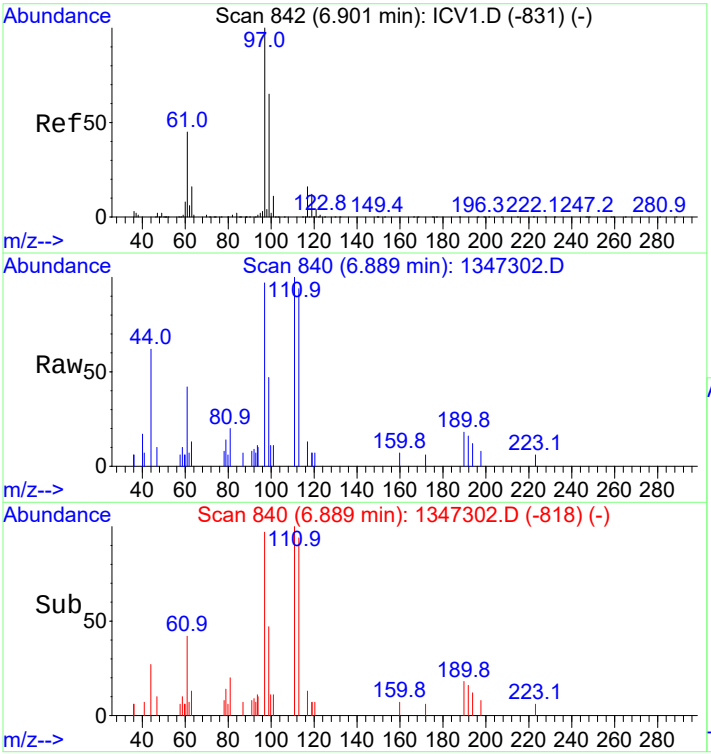


#32
c12dichlorte
Concen: 5.89 ug/L
RT: 6.26 min Scan# 736
Delta R.T. -0.01 min
Lab File: 1347302.D
Acq: 21 Jul 2023 20:45

Tgt Ion: 96 Resp: 70407

Ion	Ratio	Lower	Upper
96	100		
61	137.4	129.5	169.5
98	66.0	45.2	85.2

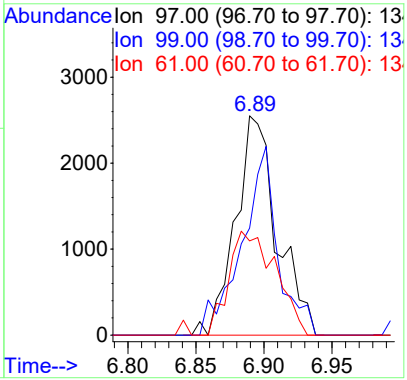


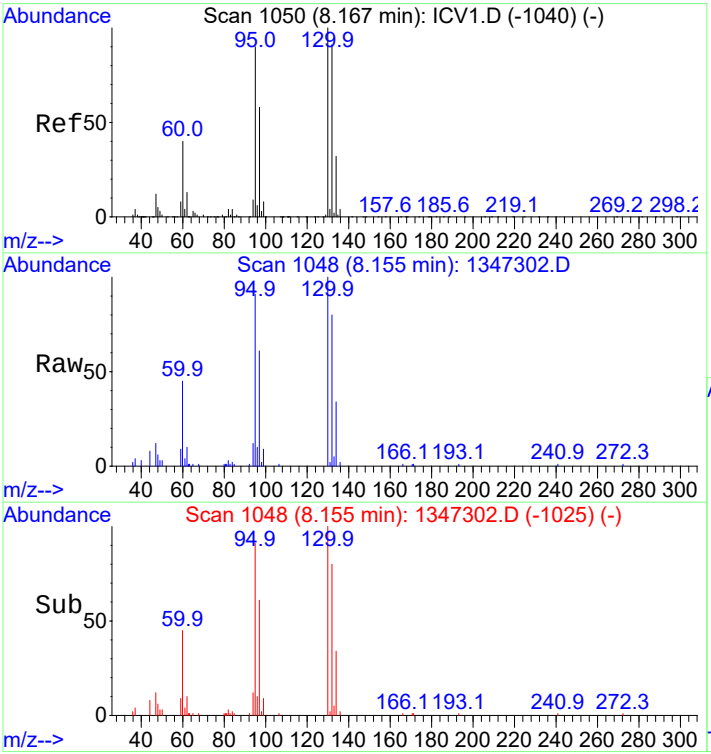


#40
111trichlota
Concen: 0.34 ug/L
RT: 6.89 min Scan# 840
Delta R.T. -0.02 min
Lab File: 1347302.D
Acq: 21 Jul 2023 20:45

Tgt Ion: 97 Resp: 5415

Ion	Ratio	Lower	Upper
97	100		
99	74.1	45.7	85.7
61	53.4	28.0	68.0

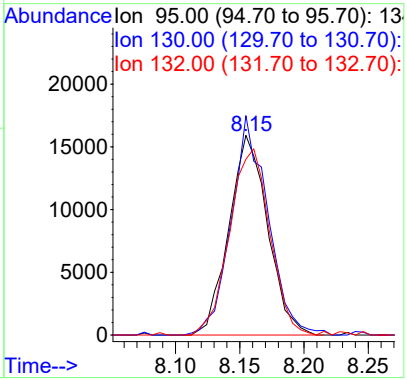


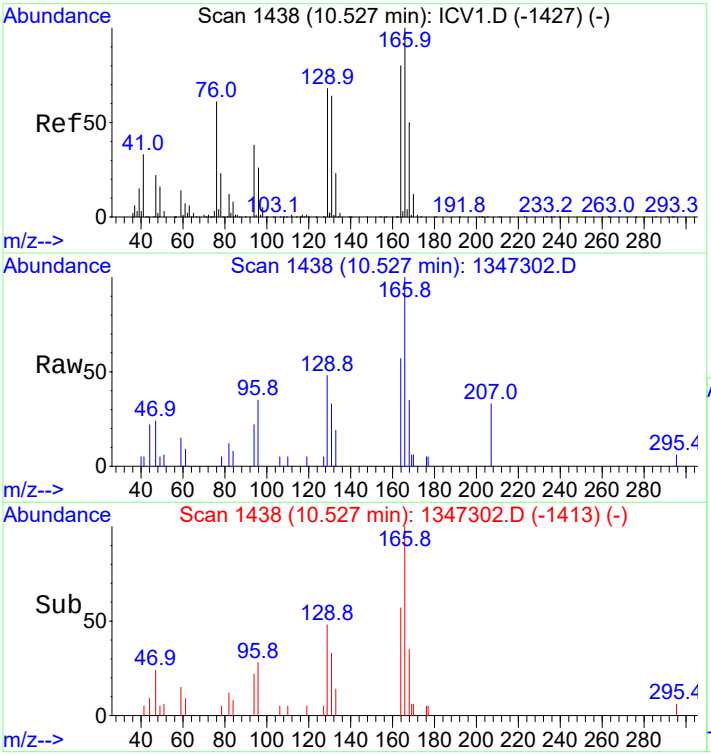


#49
trichloroete
Concen: 2.91 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1347302.D
Acq: 21 Jul 2023 20:45

Tgt Ion: 95 Resp: 33407

Ion	Ratio	Lower	Upper
95	100		
130	103.9	80.1	120.1
132	97.2	76.8	116.8

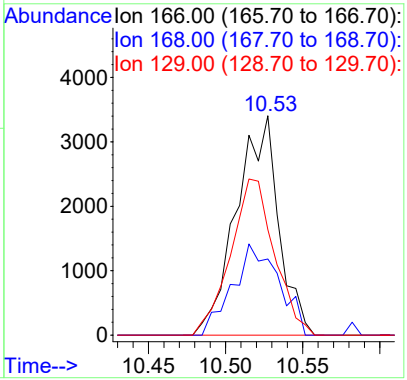




#66
Tetrachlorte
Concen: 0.52 ug/L
RT: 10.53 min Scan# 1438
Delta R.T. 0.00 min
Lab File: 1347302.D
Acq: 21 Jul 2023 20:45

Tgt Ion:166 Resp: 6502

Ion	Ratio	Lower	Upper
166	100		
168	45.2	29.8	69.8
129	73.8	51.4	91.4



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347303.D Vial: 18
Acq On : 21 Jul 2023 21:12 Operator: DGS-RLD
Sample : 273706,1347303, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:33:21 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1017987	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	769057	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	375897	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	256207	19.808 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %		
45) SURR12DCAd4	7.25	102	73421	20.664 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.70	98	995035	19.994 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.24	95	387632	20.187 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	10081	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347303.D Vial: 18
Acq On : 21 Jul 2023 21:12 Operator: DGS-RLD
Sample : 273706,1347303, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:33:21 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.66	83	3092	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	7.11	119	4777	0.3846 ug/L #	42
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23Dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	0.00	75	0	N.D.	
60) 4Meth2Pentan	0.00	43	0	N.D.	
62) Toluene	0.00	92	0	N.D.	
63) t13Dicloprop	0.00	75	0	N.D.	
64) ethylmethacrylate	0.00	69	0	N.D.	
65) 112Triclotha	0.00	83	0	N.D.	
66) Tetrachlorte	0.00	166	0	N.D.	
67) 13Diclorpropa	0.00	76	0	N.D.	
69) 2Hexanone	0.00	43	0	N.D.	
70) Clorodibrmta	0.00	129	0	N.D.	
71) 12Dibrometha	0.00	107	0	N.D.	
72) Chlorobenzen	0.00	112	0	N.D.	
73) 1Clhexane	0.00	91	0	N.D.	
74) 1112Tetclota	0.00	131	0	N.D.	
75) Ethylbenzene	11.82	91	6816	N.D.	
76) m p-Xylene	11.97	106	6765	N.D.	
77) o-Xylene	12.52	106	4026	N.D.	
78) Styrene	0.00	104	0	N.D.	
79) Bromoform	0.00	173	0	N.D.	
80) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
84) Bromobenzene	0.00	156	0	N.D.	
85) 1122Tetrclta	0.00	83	0	N.D.	
86) 123Triclproa	0.00	75	0	N.D.	
87) 14dichloro2butene	0.00	53	0	N.D.	
88) n-Propylbenz	0.00	91	0	N.D.	
89) 2chlorotolue	0.00	91	0	N.D.	
90) 4chlorotolue	0.00	91	0	N.D.	
91) 135Trimebenz	0.00	105	0	N.D.	
92) tbutylbenzen	0.00	119	0	N.D.	
93) 124Trimetben	0.00	105	0	N.D.	
94) sbutylbenzen	0.00	105	0	N.D.	
95) 13Diclorbenz	0.00	146	0	N.D.	
96) pIsopropylto	0.00	119	0	N.D.	
97) 14dichlorobe	0.00	146	0	N.D.	
98) 12dichlorobe	15.48	146	10396	0.4856 ug/L #	60
99) nButylbenzen	0.00	91	0	N.D.	
100) 12dibromo3cl	0.00	157	0	N.D.	
101) 135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347303.D Vial: 18
Acq On : 21 Jul 2023 21:12 Operator: DGS-RLD
Sample : 273706,1347303, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:33:21 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

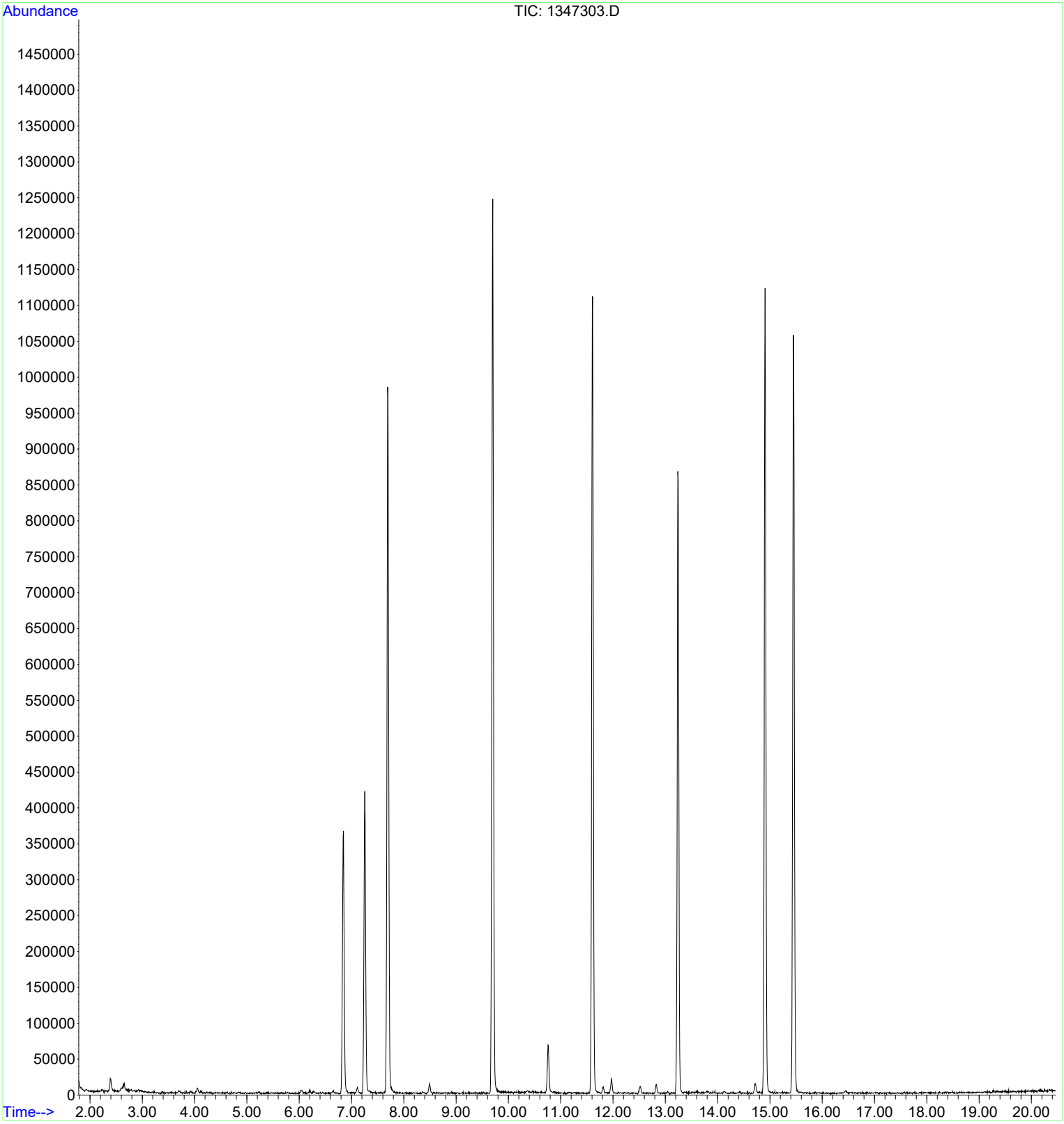
(#) = qualifier out of range (m) = manual integration

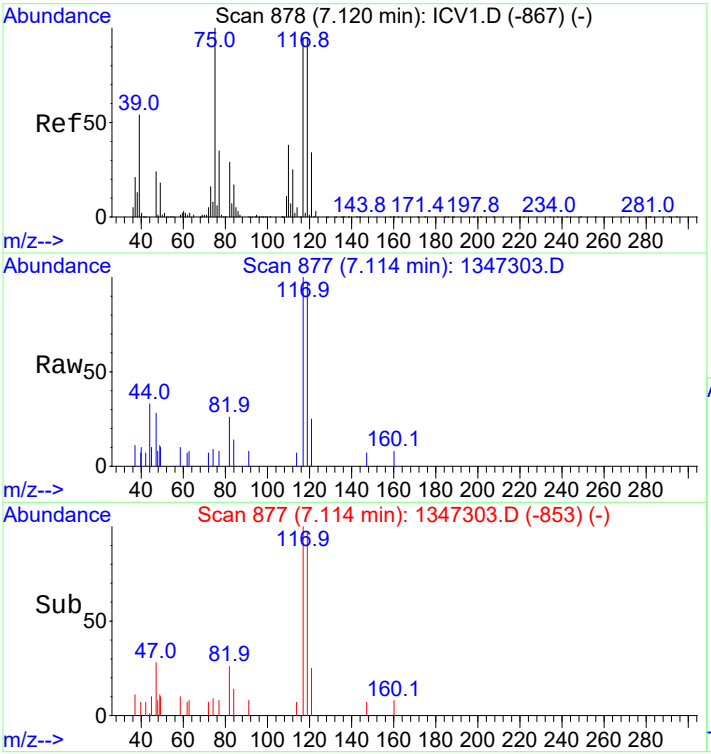
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347303.D Vial: 18
Acq On : 21 Jul 2023 21:12 Operator: DGS-RLD
Sample : 273706,1347303, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 21:33:21 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

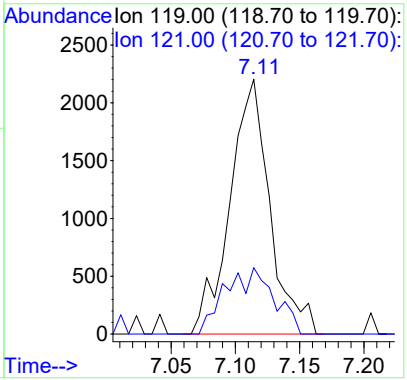


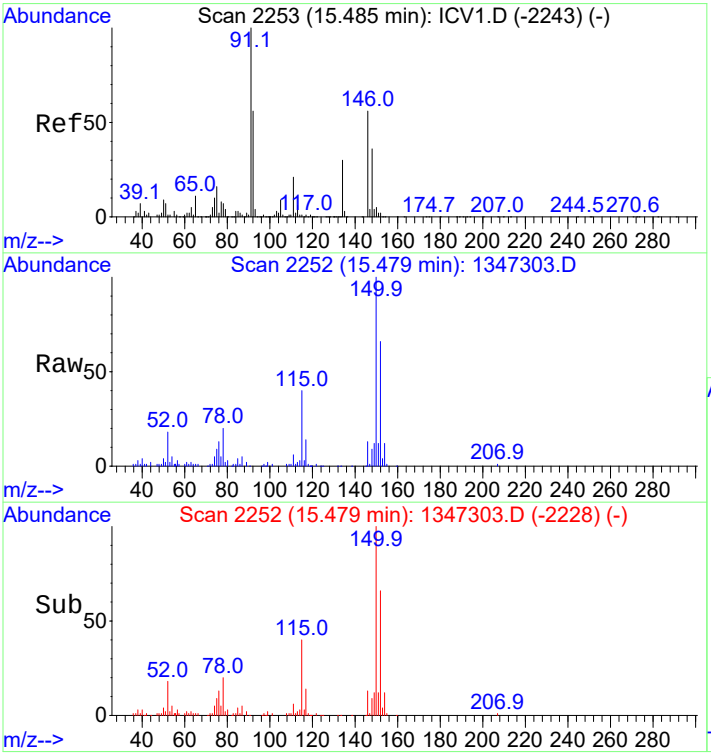


#43
Carbtetraclo
Concen: 0.38 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1347303.D
Acq: 21 Jul 2023 21:12

Tgt Ion:119 Resp: 4777

Ion	Ratio	Lower	Upper
119	100		
121	0.0	12.5	52.5#

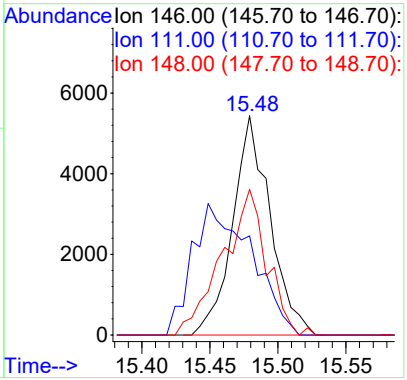




#98
12dichlorobe
Concen: 0.49 ug/L
RT: 15.48 min Scan# 2252
Delta R.T. -0.01 min
Lab File: 1347303.D
Acq: 21 Jul 2023 21:12

Tgt Ion:146 Resp: 10396

Ion	Ratio	Lower	Upper
146	100		
111	93.9	23.7	63.7#
148	78.8	46.5	86.5



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347304.D Vial: 19
Acq On : 21 Jul 2023 21:40 Operator: DGS-RLD
Sample : 273706,1347304, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:00:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1010537	20.00 ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	769889	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	371654	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	256434	19.972 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.25	102	72254	20.485 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.70	98	990046	20.040 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.24	95	383292	20.189 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	14615	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347304.D Vial: 19
Acq On : 21 Jul 2023 21:40 Operator: DGS-RLD
Sample : 273706,1347304, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:00:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23Dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	0.00	75	0	N.D.	
60) 4Meth2Pentan	0.00	43	0	N.D.	
62) Toluene	0.00	92	0	N.D.	
63) t13Dicloprop	0.00	75	0	N.D.	
64) ethylmethacrylate	0.00	69	0	N.D.	
65) 112Triclotha	0.00	83	0	N.D.	
66) Tetrachlorte	0.00	166	0	N.D.	
67) 13Diclorpropa	0.00	76	0	N.D.	
69) 2Hexanone	0.00	43	0	N.D.	
70) Clorodibrmta	0.00	129	0	N.D.	
71) 12Dibrometha	0.00	107	0	N.D.	
72) Chlorobenzen	0.00	112	0	N.D.	
73) 1Clhexane	0.00	91	0	N.D.	
74) 1112Tetclota	0.00	131	0	N.D.	
75) Ethylbenzene	11.80	91	22663	0.4412 ug/L	93
76) m p-Xylene	11.97	106	19211	0.9783 ug/L	94
77) o-Xylene	12.52	106	11511	0.5996 ug/L	97
78) Styrene	0.00	104	0	N.D.	
79) Bromoform	0.00	173	0	N.D.	
80) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
84) Bromobenzene	0.00	156	0	N.D.	
85) 1122Tetrclta	0.00	83	0	N.D.	
86) 123Triclproa	0.00	75	0	N.D.	
87) 14dichloro2butene	0.00	53	0	N.D.	
88) n-Propylbenz	0.00	91	0	N.D.	
89) 2chlorotolue	0.00	91	0	N.D.	
90) 4chlorotolue	0.00	91	0	N.D.	
91) 135Trimebenz	0.00	105	0	N.D.	
92) tbutylbenzen	0.00	119	0	N.D.	
93) 124Trimetben	14.41	105	2850	N.D.	
94) sbutylbenzen	0.00	105	0	N.D.	
95) 13Diclorbenz	0.00	146	0	N.D.	
96) pIsopropylto	0.00	119	0	N.D.	
97) 14dichlorobe	0.00	146	0	N.D.	
98) 12dichlorobe	15.47	146	7888	0.3726 ug/L #	40
99) nButylbenzen	0.00	91	0	N.D.	
100) 12dibromo3cl	0.00	157	0	N.D.	
101) 135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347304.D Vial: 19
Acq On : 21 Jul 2023 21:40 Operator: DGS-RLD
Sample : 273706,1347304, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:00:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

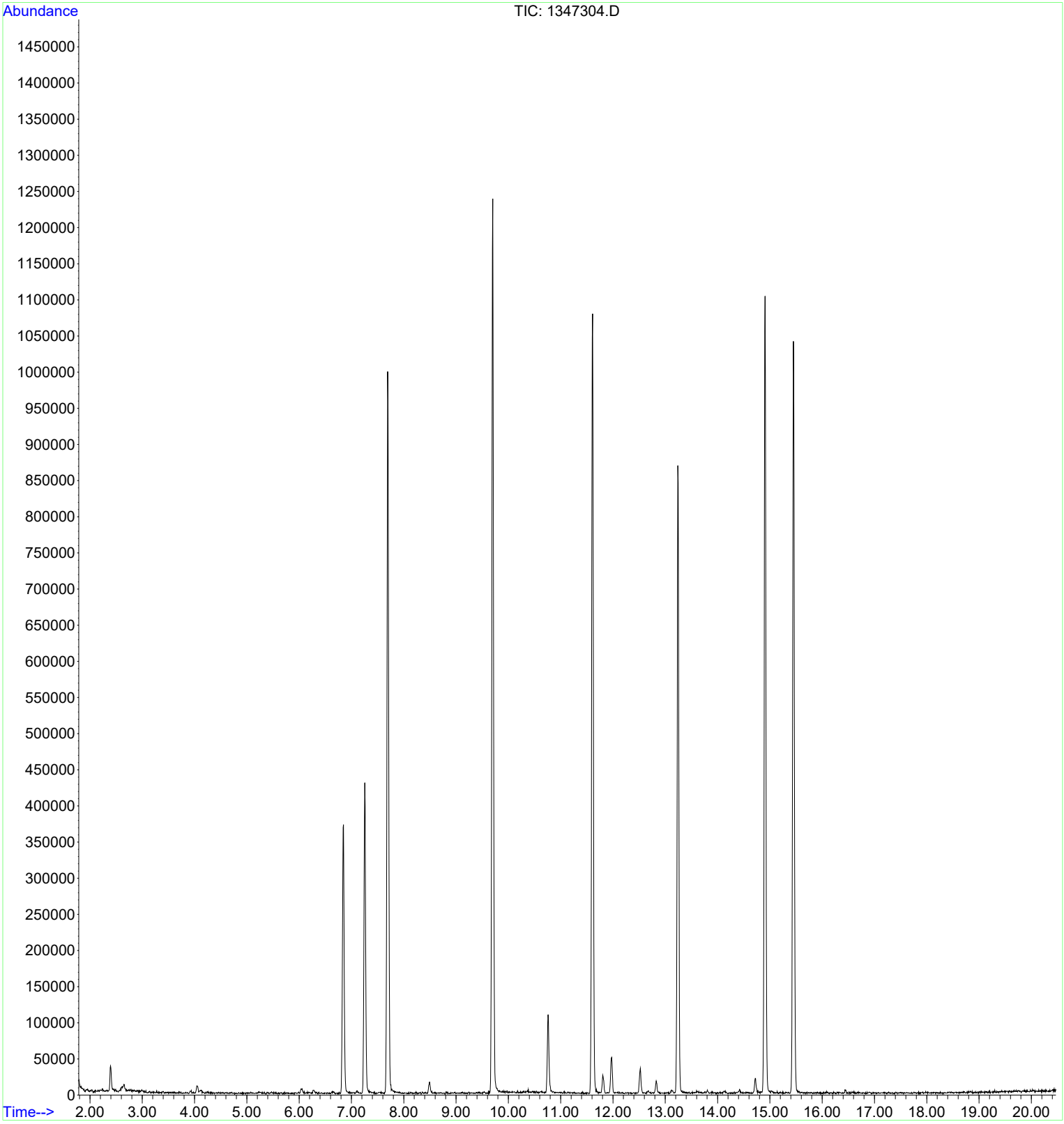
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347304.D Vial: 19
Acq On : 21 Jul 2023 21:40 Operator: DGS-RLD
Sample : 273706,1347304, Inst : VMS3
Misc : pH 6,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:00:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347758.D Vial: 20
Acq On : 21 Jul 2023 22:08 Operator: DGS-RLD
Sample : 273706,1347758, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:28:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1009894	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	757162	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	373212	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	256816	20.015	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	71491	20.282	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	983364	19.918	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	382929	20.086	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		

Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	4675	Below	Cal #	44
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	5.53	63	9639	0.4959	ug/L #	84
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	6.26	96	7158	0.6033	ug/L	90
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347758.D Vial: 20
Acq On : 21 Jul 2023 22:08 Operator: DGS-RLD
Sample : 273706,1347758, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:28:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	8.16	95	4630	0.4053 ug/L #	81
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23Dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	0.00	75	0	N.D.	
60) 4Meth2Pentan	0.00	43	0	N.D.	
62) Toluene	0.00	92	0	N.D.	
63) t13Dicloprop	0.00	75	0	N.D.	
64) ethylmethacrylate	0.00	69	0	N.D.	
65) 112Triclotha	0.00	83	0	N.D.	
66) Tetrachlorte	0.00	166	0	N.D.	
67) 13Diclorpropa	0.00	76	0	N.D.	
69) 2Hexanone	0.00	43	0	N.D.	
70) Clorodibrmta	0.00	129	0	N.D.	
71) 12Dibrometha	0.00	107	0	N.D.	
72) Chlorobenzen	0.00	112	0	N.D.	
73) 1Clhexane	0.00	91	0	N.D.	
74) 1112Tetclota	0.00	131	0	N.D.	
75) Ethylbenzene	11.81	91	70701	1.3994 ug/L	97
76) m p-Xylene	11.97	106	50876	2.6343 ug/L	99
77) o-Xylene	12.52	106	25804	1.3666 ug/L	99
78) Styrene	0.00	104	0	N.D.	
79) Bromoform	0.00	173	0	N.D.	
80) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
84) Bromobenzene	0.00	156	0	N.D.	
85) 1122Tetrclta	0.00	83	0	N.D.	
86) 123Triclproa	0.00	75	0	N.D.	
87) 14dichloro2butene	0.00	53	0	N.D.	
88) n-Propylbenz	0.00	91	0	N.D.	
89) 2chlorotolue	0.00	91	0	N.D.	
90) 4chlorotolue	0.00	91	0	N.D.	
91) 135Trimebenz	0.00	105	0	N.D.	
92) tbutylbenzen	0.00	119	0	N.D.	
93) 124Trimetben	0.00	105	0	N.D.	
94) sbutylbenzen	0.00	105	0	N.D.	
95) 13Diclorbenz	0.00	146	0	N.D.	
96) pIsopropylto	0.00	119	0	N.D.	
97) 14dichlorobe	14.94	146	2802	N.D.	
98) 12dichlorobe	15.48	146	200342	9.4247 ug/L	98
99) nButylbenzen	0.00	91	0	N.D.	
100) 12dibromo3cl	0.00	157	0	N.D.	
101) 135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347758.D Vial: 20
Acq On : 21 Jul 2023 22:08 Operator: DGS-RLD
Sample : 273706,1347758, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:28:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

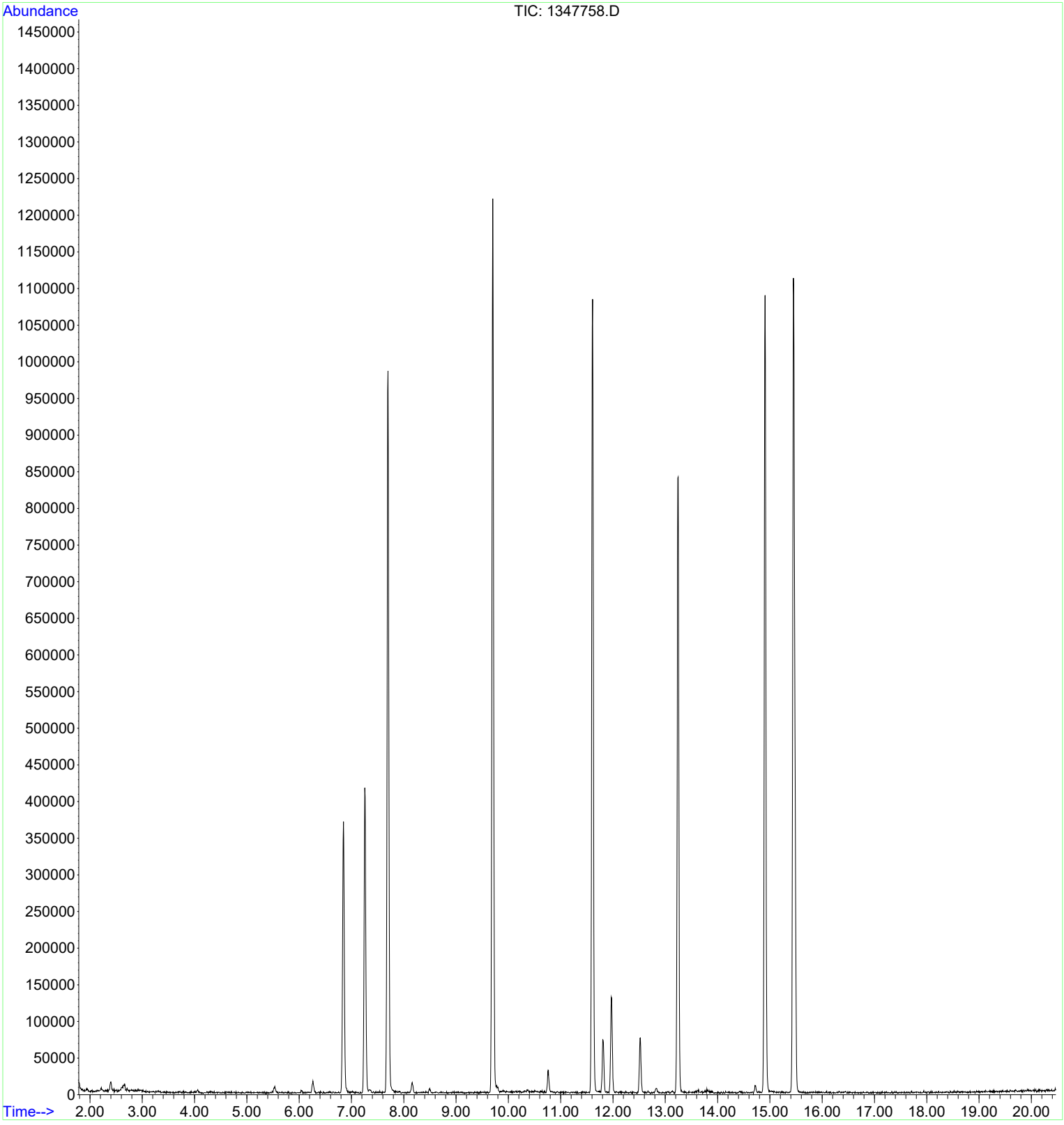
(#) = qualifier out of range (m) = manual integration

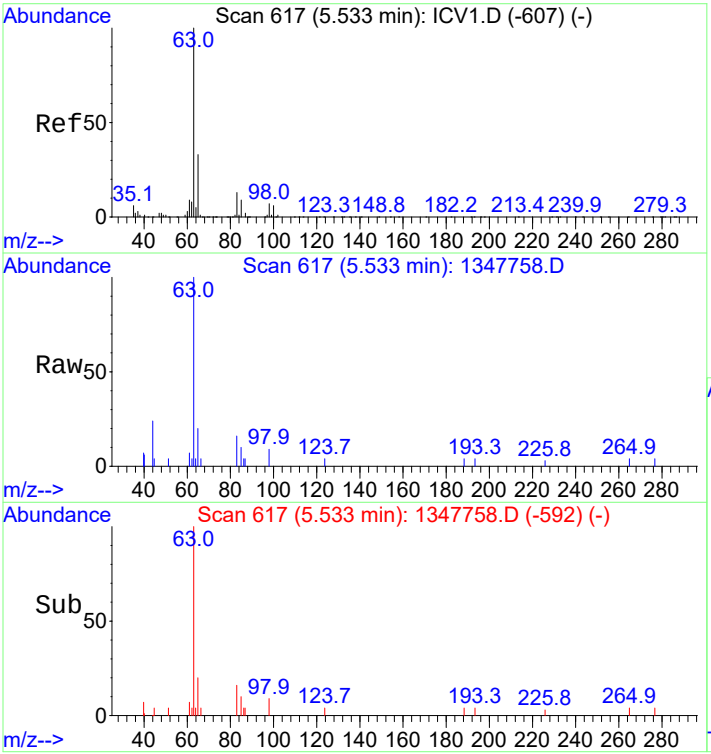
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347758.D Vial: 20
Acq On : 21 Jul 2023 22:08 Operator: DGS-RLD
Sample : 273706,1347758, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:28:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

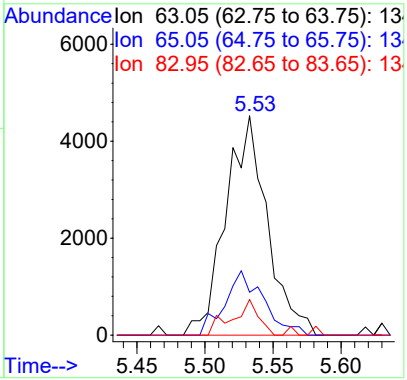


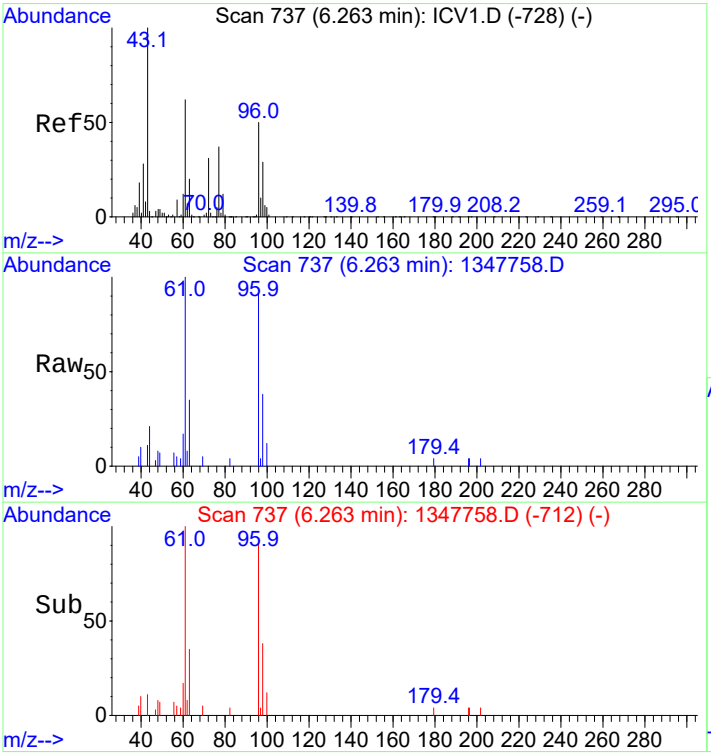


#26
11dichlorota
Concen: 0.50 ug/L
RT: 5.53 min Scan# 617
Delta R.T. 0.00 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion: 63 Resp: 9639

Ion	Ratio	Lower	Upper
63	100		
65	27.1	11.7	51.7
83	0.0	0.0	33.4

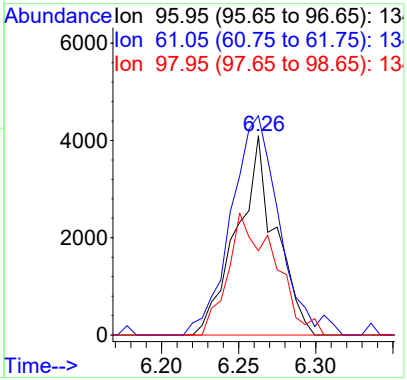


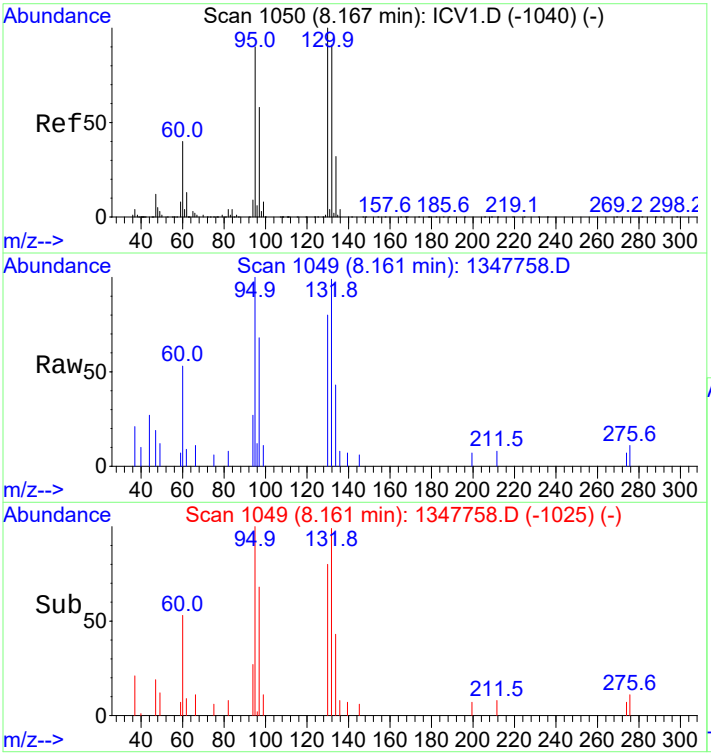


#32
c12dichlorte
Concen: 0.60 ug/L
RT: 6.26 min Scan# 737
Delta R.T. 0.00 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion: 96 Resp: 7158

Ion	Ratio	Lower	Upper
96	100		
61	137.0	129.5	169.5
98	74.0	45.2	85.2

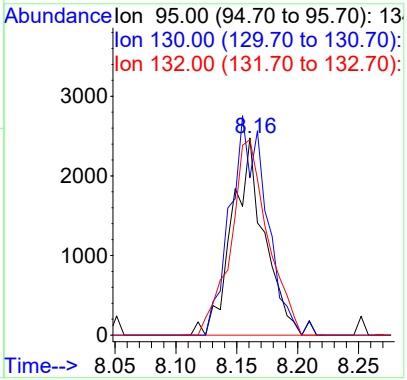


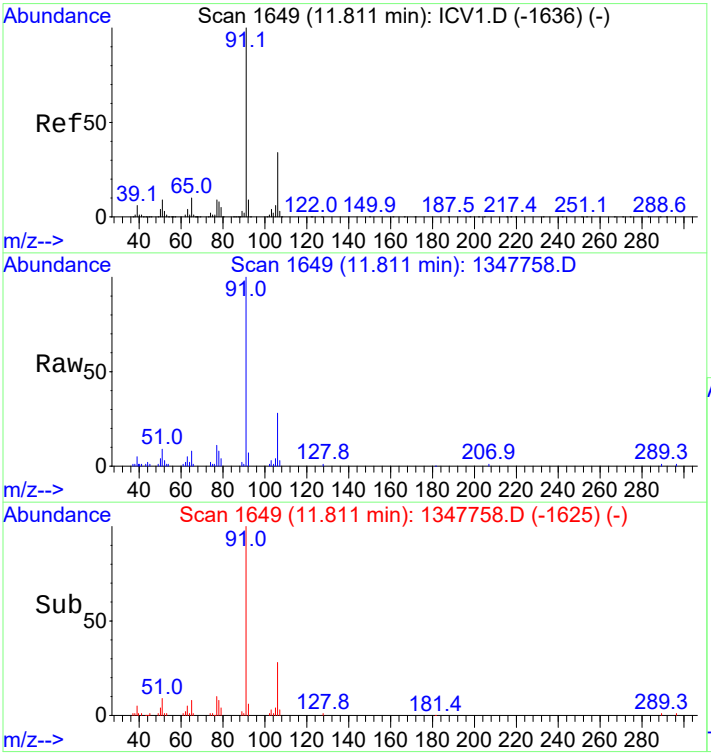


#49
trichloroete
Concen: 0.41 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.01 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion: 95 Resp: 4630

Ion	Ratio	Lower	Upper
95	100		
130	122.5	80.1	120.1#
132	112.2	76.8	116.8

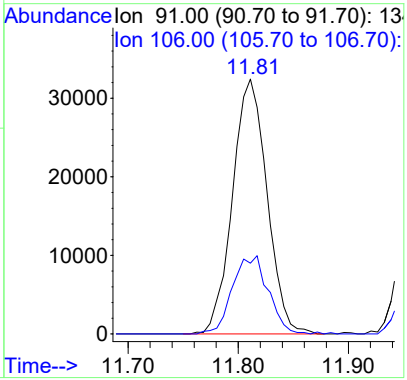


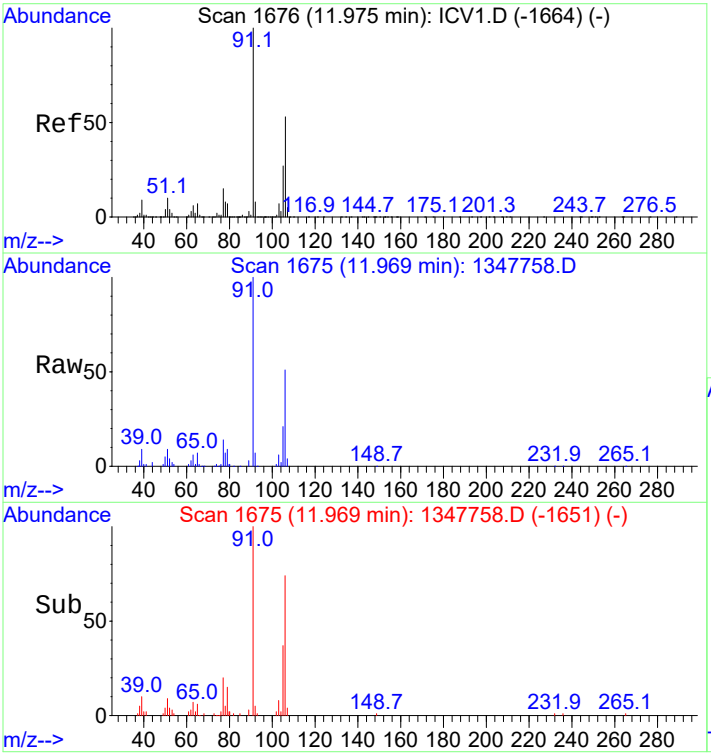


#75
Ethylbenzene
Concen: 1.40 ug/L
RT: 11.81 min Scan# 1649
Delta R.T. -0.01 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion: 91 Resp: 70701

Ion	Ratio	Lower	Upper
91	100		
106	31.6	13.2	53.2

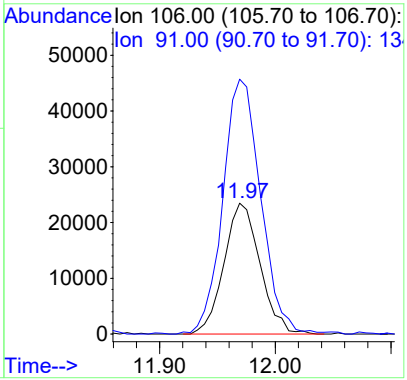


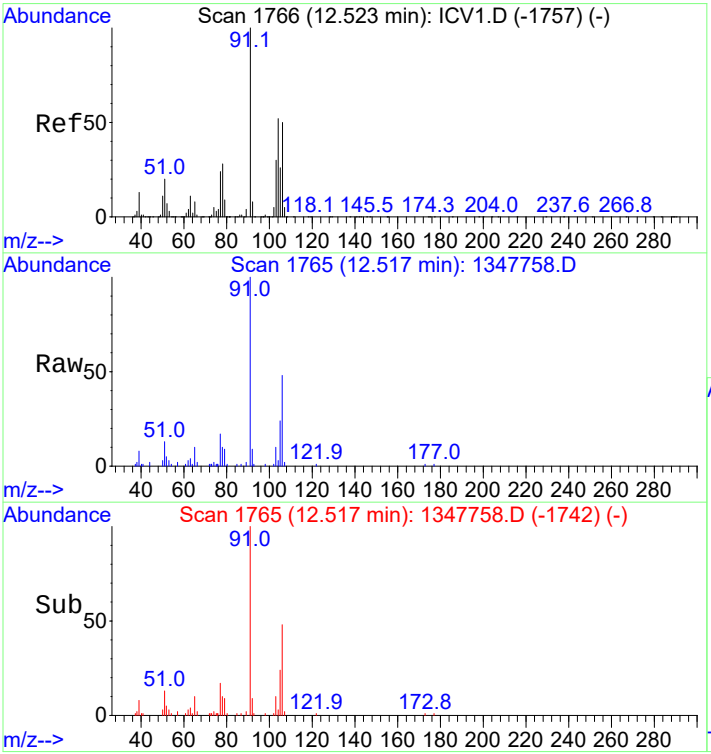


#76
m p-Xylene
Concen: 2.63 ug/L
RT: 11.97 min Scan# 1675
Delta R.T. -0.01 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion:106 Resp: 50876

Ion	Ratio	Lower	Upper
106	100		
91	205.1	182.8	222.8

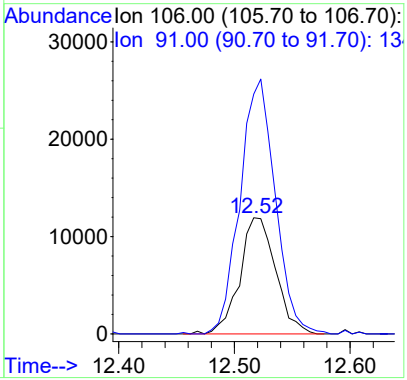


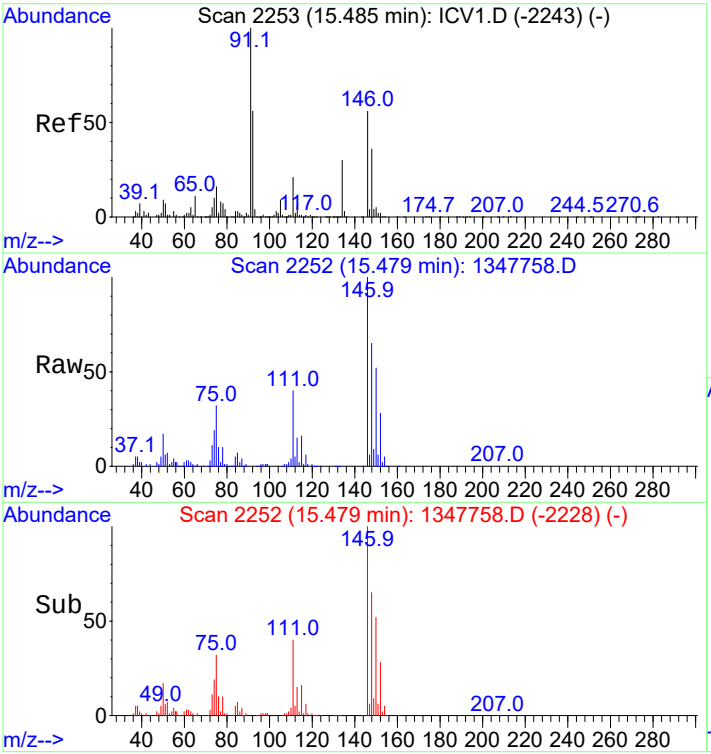


#77
o-Xylene
Concen: 1.37 ug/L
RT: 12.52 min Scan# 1765
Delta R.T. -0.01 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion:106 Resp: 25804

Ion	Ratio	Lower	Upper
106	100		
91	214.7	193.5	233.5

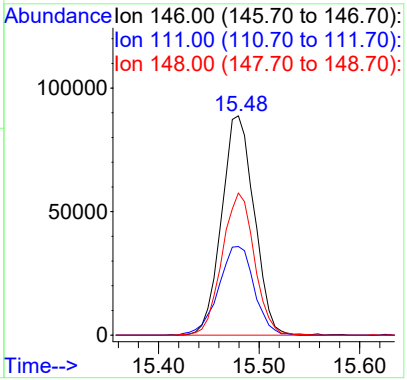




#98
12dichlorobe
Concen: 9.42 ug/L
RT: 15.48 min Scan# 2252
Delta R.T. -0.01 min
Lab File: 1347758.D
Acq: 21 Jul 2023 22:08

Tgt Ion:146 Resp: 200342

Ion	Ratio	Lower	Upper
146	100		
111	44.0	23.7	63.7
148	64.1	46.5	86.5



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347759.D Vial: 21
Acq On : 21 Jul 2023 22:36 Operator: DGS-RLD
Sample : 273706,1347759, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:57:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1032744	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	767727	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	376325	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	256287	19.531	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.26	102	74730	20.732	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104 %			
61) SURRd8Tolule	9.70	98	1001829	19.843	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %			
83) SURR4BrFBenz	13.24	95	377791	19.652	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	5231	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	6.25	96	4215	0.3474 ug/L	89
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347759.D Vial: 21
Acq On : 21 Jul 2023 22:36 Operator: DGS-RLD
Sample : 273706,1347759, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:57:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	2831	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	13906	1.1036	ug/L	94
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	15143	1.2964	ug/L	94
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	15.48	146	3614	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347759.D Vial: 21
Acq On : 21 Jul 2023 22:36 Operator: DGS-RLD
Sample : 273706,1347759, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:57:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

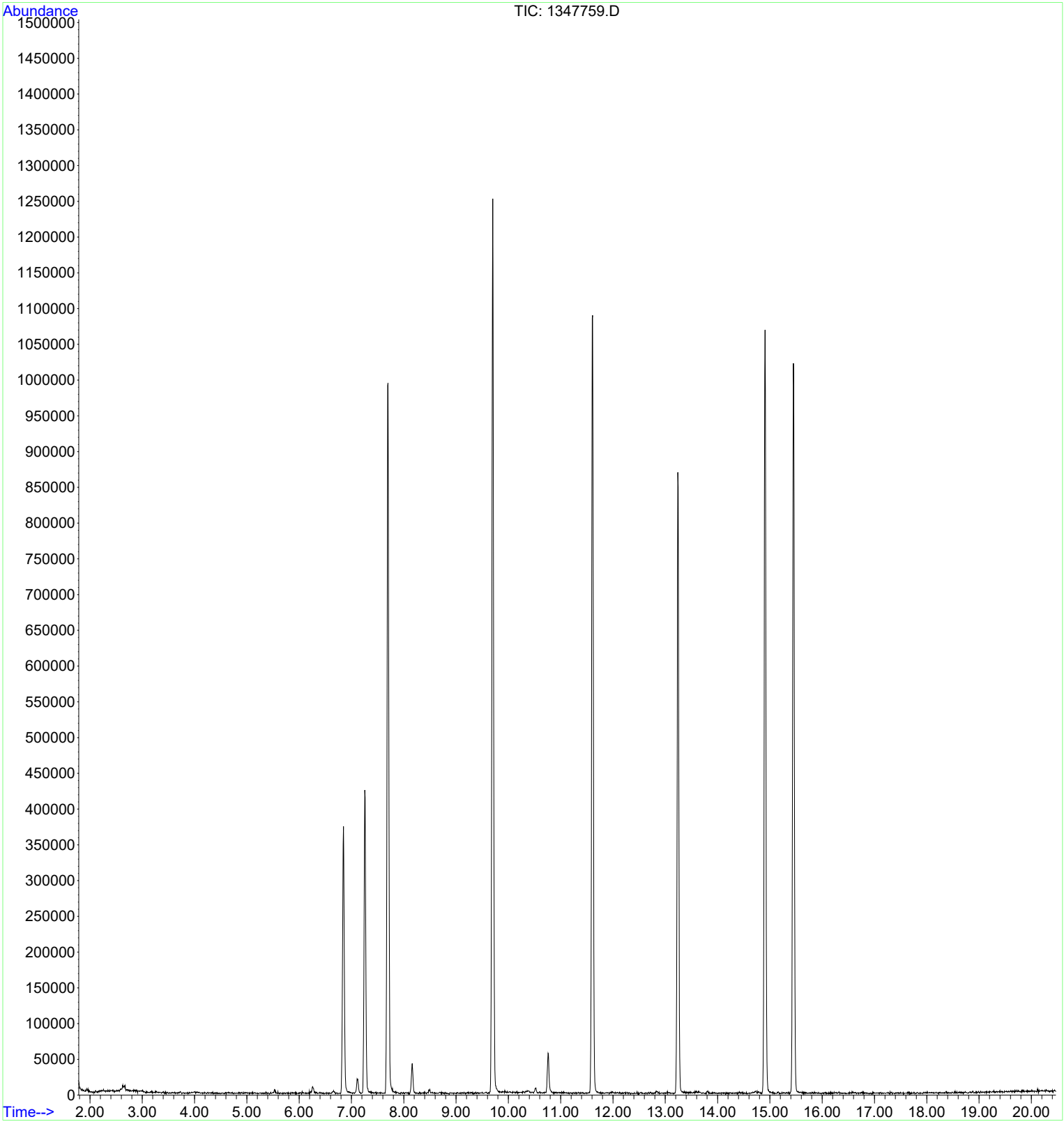
(#) = qualifier out of range (m) = manual integration

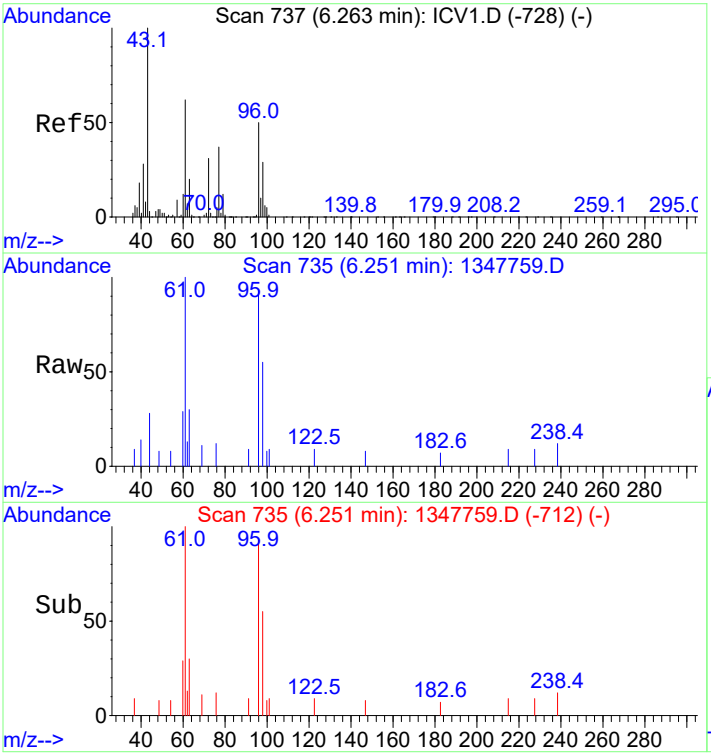
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1347759.D Vial: 21
Acq On : 21 Jul 2023 22:36 Operator: DGS-RLD
Sample : 273706,1347759, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 22:57:16 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

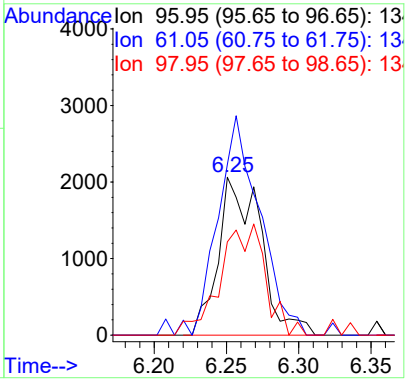


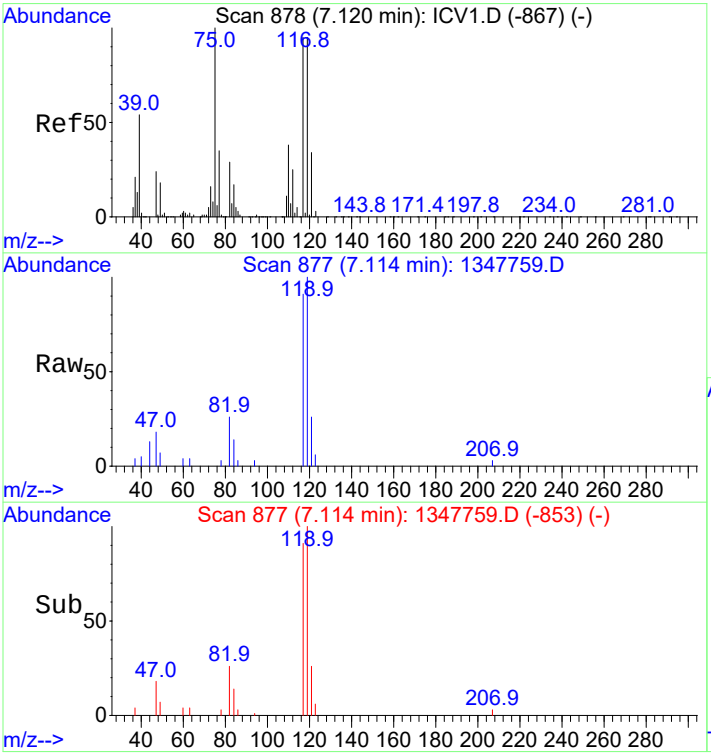


#32
c12dichlorte
Concen: 0.35 ug/L
RT: 6.25 min Scan# 735
Delta R.T. -0.01 min
Lab File: 1347759.D
Acq: 21 Jul 2023 22:36

Tgt Ion: 96 Resp: 4215

Ion	Ratio	Lower	Upper
96	100		
61	136.8	129.5	169.5
98	74.6	45.2	85.2

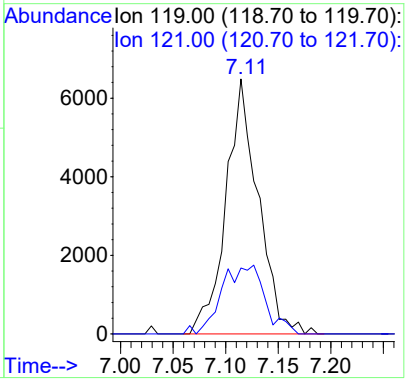


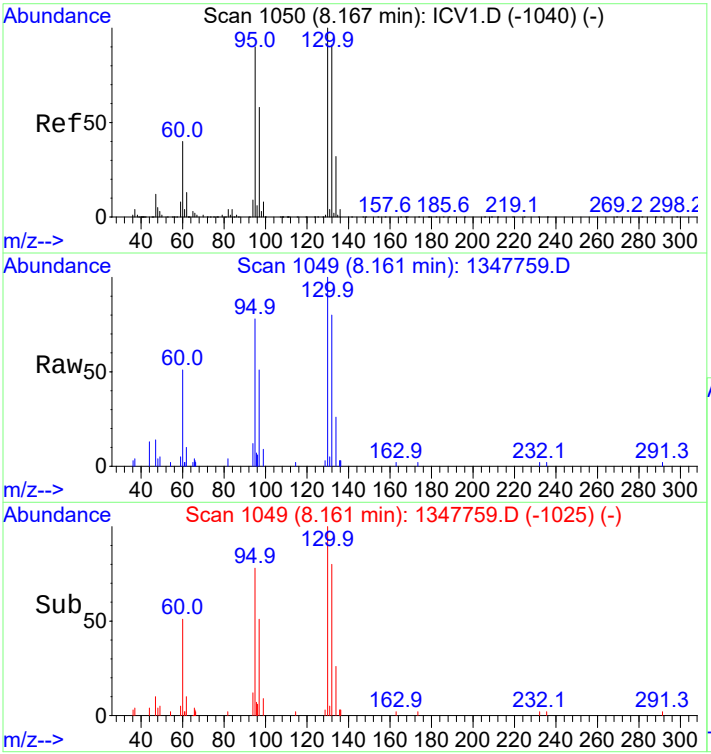


#43
Carbtetraclo
Concen: 1.10 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1347759.D
Acq: 21 Jul 2023 22:36

Tgt Ion:119 Resp: 13906

Ion	Ratio	Lower	Upper
119	100		
121	36.1	12.5	52.5

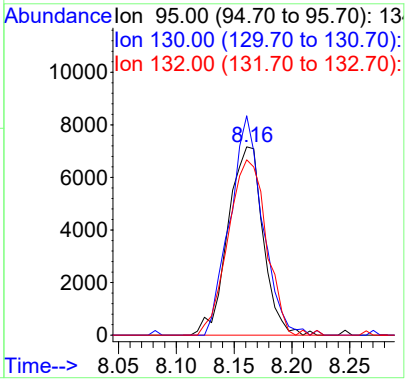




#49
trichloroete
Concen: 1.30 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.01 min
Lab File: 1347759.D
Acq: 21 Jul 2023 22:36

Tgt Ion: 95 Resp: 15143

Ion	Ratio	Lower	Upper
95	100		
130	108.6	80.1	120.1
132	100.7	76.8	116.8



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348146.D Vial: 22
Acq On : 21 Jul 2023 23:04 Operator: DGS-RLD
Sample : 273706,1348146, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:25:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1024687	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	784502	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	378025	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	256938	19.735	ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	70908	19.826	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.70	98	1000533	19.973	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %			
83) SURR4BrFBenz	13.24	95	386977	20.040	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	3044	Below	Cal #	44
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348146.D Vial: 22
Acq On : 21 Jul 2023 23:04 Operator: DGS-RLD
Sample : 273706,1348146, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:25:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.65	83	60615	3.1803	ug/L	96
40) 111trichlota	0.00	97	0	N.D.		
42) Cyclohexane	0.00	56	0	N.D.		
43) Carbtetraclo	7.11	119	241100	19.2851	ug/L	98
44) 11dicloprope	0.00	110	0	N.D.		
46) Benzene	0.00	78	0	N.D.		
47) 12dichlorota	0.00	62	0	N.D.		
48) TAME	0.00	73	0	N.D.		
49) trichloroete	8.15	95	13368	1.1534	ug/L	97
50) methylcyclohexane	0.00	83	0	N.D.		
51) 12dicloropra	0.00	63	0	N.D.		
52) 23Dicl1propene	0.00	75	0	N.D.		
53) Dibromometha	0.00	93	0	N.D.		
54) methylmethacrylate	0.00	69	0	N.D.		
55) 14dioxane	0.00	88	0	N.D.		
56) Bromodiclrma	0.00	83	0	N.D.		
57) 2Nitropropane	0.00	43	0	N.D.		
58) 2CLEVE	0.00	63	0	N.D.		
59) c13dicloproe	0.00	75	0	N.D.		
60) 4Meth2Pentan	0.00	43	0	N.D.		
62) Toluene	0.00	92	0	N.D.		
63) t13Dicloprop	0.00	75	0	N.D.		
64) ethylmethacrylate	0.00	69	0	N.D.		
65) 112Triclotha	0.00	83	0	N.D.		
66) Tetrachlorte	0.00	166	0	N.D.		
67) 13Diclorpropa	0.00	76	0	N.D.		
69) 2Hexanone	0.00	43	0	N.D.		
70) Clorodibrmta	0.00	129	0	N.D.		
71) 12Dibrometha	0.00	107	0	N.D.		
72) Chlorobenzen	0.00	112	0	N.D.		
73) 1Clhexane	0.00	91	0	N.D.		
74) 1112Tetclota	0.00	131	0	N.D.		
75) Ethylbenzene	0.00	91	0	N.D.		
76) m p-Xylene	0.00	106	0	N.D.		
77) o-Xylene	0.00	106	0	N.D.		
78) Styrene	0.00	104	0	N.D.		
79) Bromoform	0.00	173	0	N.D.		
80) Isopropylben	0.00	105	0	N.D.		
81) cyclohexanone	0.00	55	0	N.D.		
84) Bromobenzene	0.00	156	0	N.D.		
85) 1122Tetrclta	0.00	83	0	N.D.		
86) 123Triclproa	0.00	75	0	N.D.		
87) 14dichloro2butene	0.00	53	0	N.D.		
88) n-Propylbenz	0.00	91	0	N.D.		
89) 2chlorotolue	0.00	91	0	N.D.		
90) 4chlorotolue	0.00	91	0	N.D.		
91) 135Trimebenz	0.00	105	0	N.D.		
92) tbutylbenzen	0.00	119	0	N.D.		
93) 124Trimetben	0.00	105	0	N.D.		
94) sbutylbenzen	0.00	105	0	N.D.		
95) 13Diclorbenz	0.00	146	0	N.D.		
96) pIsopropylto	0.00	119	0	N.D.		
97) 14dichlorobe	0.00	146	0	N.D.		
98) 12dichlorobe	0.00	146	0	N.D.		
99) nButylbenzen	0.00	91	0	N.D.		
100) 12dibromo3cl	0.00	157	0	N.D.		
101) 135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348146.D Vial: 22
Acq On : 21 Jul 2023 23:04 Operator: DGS-RLD
Sample : 273706,1348146, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:25:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

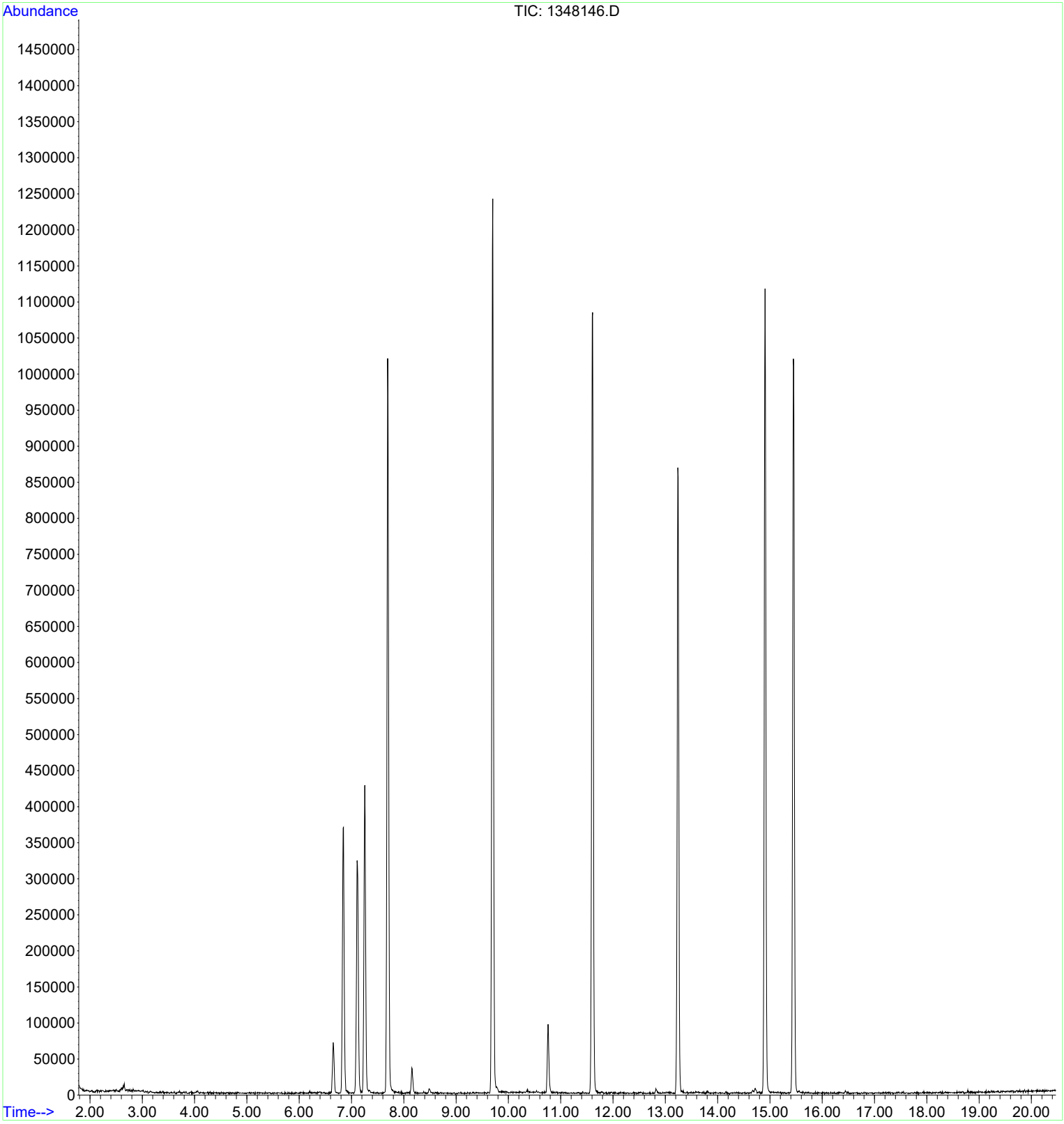
(#) = qualifier out of range (m) = manual integration

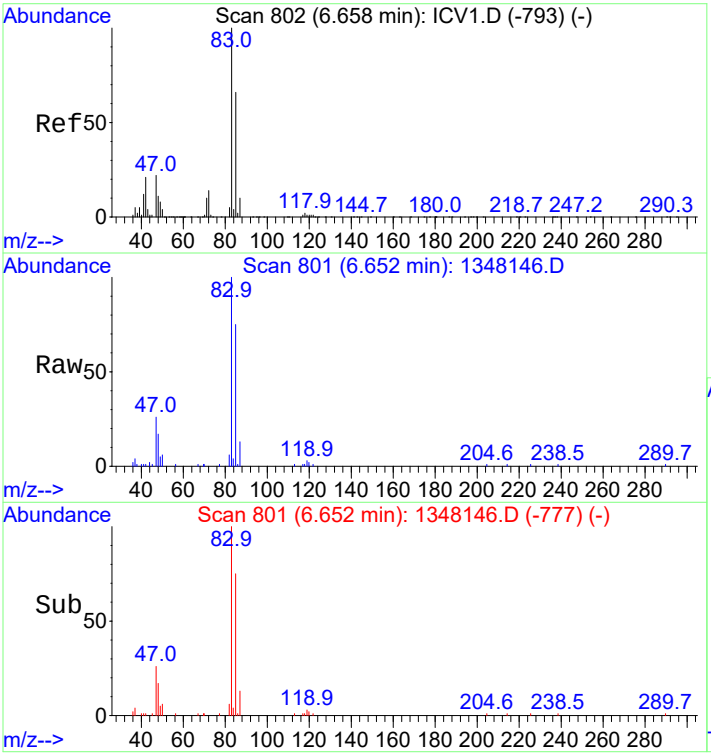
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348146.D Vial: 22
Acq On : 21 Jul 2023 23:04 Operator: DGS-RLD
Sample : 273706,1348146, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:25:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

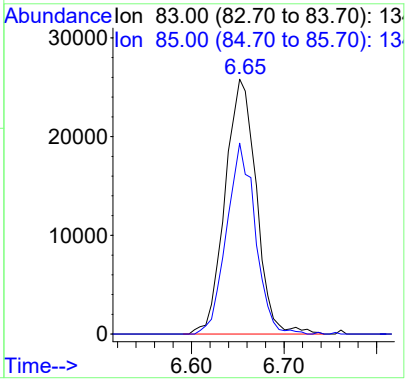


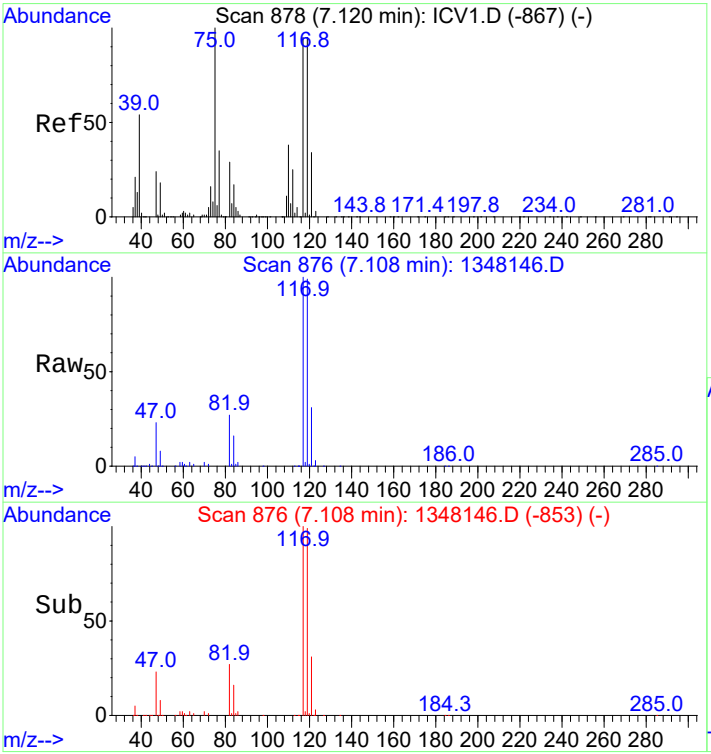


#39
Chloroform
Concen: 3.18 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.01 min
Lab File: 1348146.D
Acq: 21 Jul 2023 23:04

Tgt Ion: 83 Resp: 60615

Ion	Ratio	Lower	Upper
83	100		
85	68.7	45.9	85.9

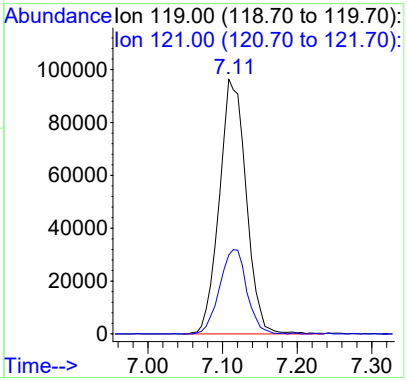


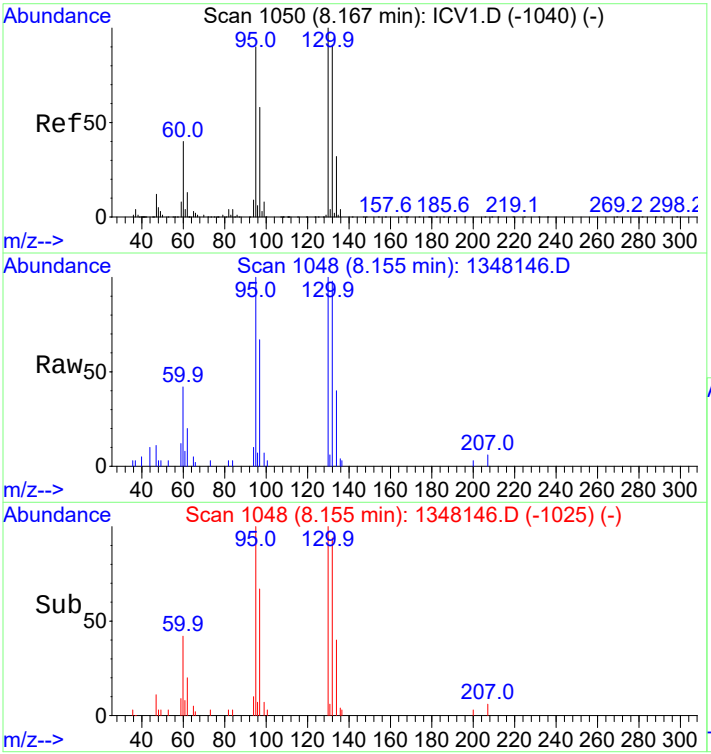


#43
Carbtetraclo
Concen: 19.29 ug/L
RT: 7.11 min Scan# 876
Delta R.T. -0.01 min
Lab File: 1348146.D
Acq: 21 Jul 2023 23:04

Tgt Ion:119 Resp: 241100

Ion	Ratio	Lower	Upper
119	100		
121	33.5	12.5	52.5

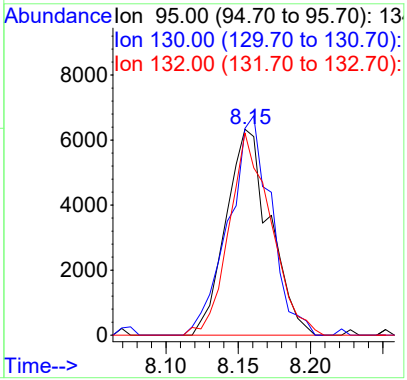




#49
trichloroete
Concen: 1.15 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1348146.D
Acq: 21 Jul 2023 23:04

Tgt Ion: 95 Resp: 13368

Ion	Ratio	Lower	Upper
95	100		
130	103.0	80.1	120.1
132	93.9	76.8	116.8



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348147.D Vial: 23
Acq On : 21 Jul 2023 23:31 Operator: DGS-RLD
Sample : 273706,1348147, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:52:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1029132	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	768806	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	374247	20.00	ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	260825	19.947	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.25	102	70945	19.751	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.70	98	1004647	19.969	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	381523	19.957	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348147.D Vial: 23
Acq On : 21 Jul 2023 23:31 Operator: DGS-RLD
Sample : 273706,1348147, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:52:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39) Chloroform	6.65	83	189501	9.8997	ug/L		97
40) 111trichlota	0.00	97	0	N.D.			
42) Cyclohexane	0.00	56	0	N.D.			
43) Carbtetraclo	7.11	119	955248	76.0785	ug/L		98
44) 11dicloprope	0.00	110	0	N.D.			
46) Benzene	0.00	78	0	N.D.			
47) 12dichlorota	7.35	62	6575	0.4090	ug/L	#	49
48) TAME	0.00	73	0	N.D.			
49) trichloroete	8.16	95	155948	13.3974	ug/L		96
50) methylcyclohexane	0.00	83	0	N.D.			
51) 12dicloropra	0.00	63	0	N.D.			
52) 23Dicl1propene	0.00	75	0	N.D.			
53) Dibromometha	0.00	93	0	N.D.			
54) methylmethacrylate	0.00	69	0	N.D.			
55) 14dioxane	0.00	88	0	N.D.			
56) Bromodiclrma	0.00	83	0	N.D.			
57) 2Nitropropane	0.00	43	0	N.D.			
58) 2CLEVE	0.00	63	0	N.D.			
59) c13dicloproe	0.00	75	0	N.D.			
60) 4Meth2Pentan	0.00	43	0	N.D.			
62) Toluene	0.00	92	0	N.D.			
63) t13Dicloprop	0.00	75	0	N.D.			
64) ethylmethacrylate	0.00	69	0	N.D.			
65) 112Triclotha	0.00	83	0	N.D.			
66) Tetrachlorte	0.00	166	0	N.D.			
67) 13Diclorpropa	0.00	76	0	N.D.			
69) 2Hexanone	0.00	43	0	N.D.			
70) Clorodibrmta	0.00	129	0	N.D.			
71) 12Dibrometha	0.00	107	0	N.D.			
72) Chlorobenzen	0.00	112	0	N.D.			
73) 1Clhexane	0.00	91	0	N.D.			
74) 1112Tetclota	0.00	131	0	N.D.			
75) Ethylbenzene	0.00	91	0	N.D.			
76) m p-Xylene	0.00	106	0	N.D.			
77) o-Xylene	0.00	106	0	N.D.			
78) Styrene	0.00	104	0	N.D.			
79) Bromoform	0.00	173	0	N.D.			
80) Isopropylben	0.00	105	0	N.D.			
81) cyclohexanone	0.00	55	0	N.D.			
84) Bromobenzene	0.00	156	0	N.D.			
85) 1122Tetrclta	0.00	83	0	N.D.			
86) 123Triclproa	0.00	75	0	N.D.			
87) 14dichloro2butene	0.00	53	0	N.D.			
88) n-Propylbenz	0.00	91	0	N.D.			
89) 2chlorotolue	0.00	91	0	N.D.			
90) 4chlorotolue	0.00	91	0	N.D.			
91) 135Trimebenz	0.00	105	0	N.D.			
92) tbutylbenzen	0.00	119	0	N.D.			
93) 124Trimetben	0.00	105	0	N.D.			
94) sbutylbenzen	0.00	105	0	N.D.			
95) 13Diclorbenz	0.00	146	0	N.D.			
96) pIsopropylto	0.00	119	0	N.D.			
97) 14dichlorobe	0.00	146	0	N.D.			
98) 12dichlorobe	0.00	146	0	N.D.			
99) nButylbenzen	0.00	91	0	N.D.			
100) 12dibromo3cl	0.00	157	0	N.D.			
101) 135Trichlorobenzene	0.00	180	0	N.D.			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348147.D Vial: 23
Acq On : 21 Jul 2023 23:31 Operator: DGS-RLD
Sample : 273706,1348147, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:52:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

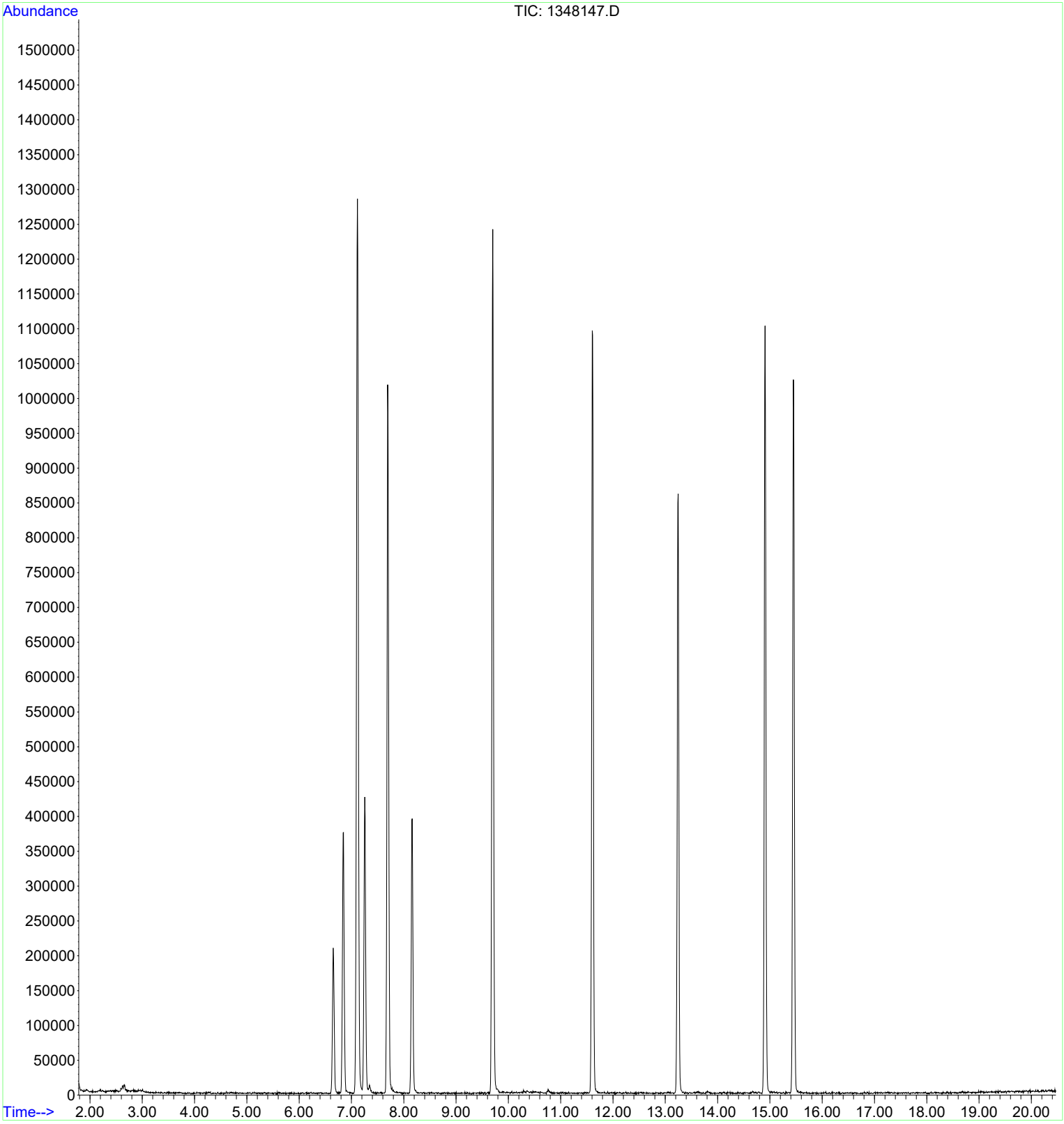
(#) = qualifier out of range (m) = manual integration

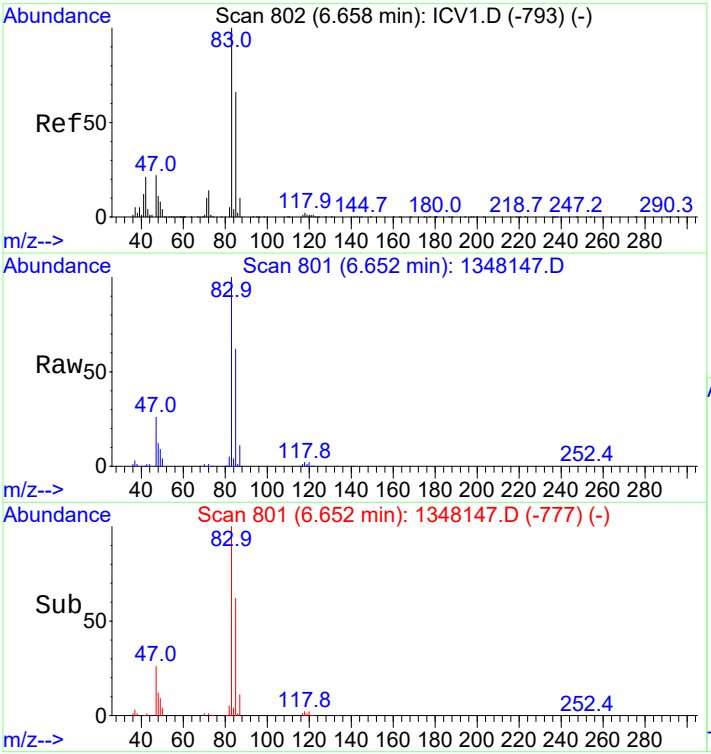
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348147.D Vial: 23
Acq On : 21 Jul 2023 23:31 Operator: DGS-RLD
Sample : 273706,1348147, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 23:52:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

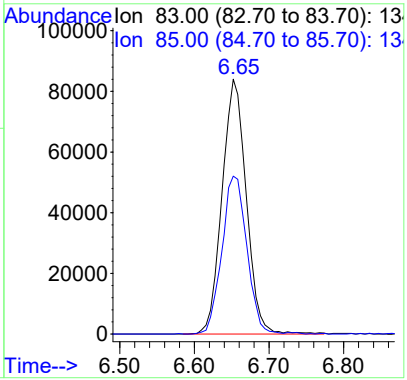


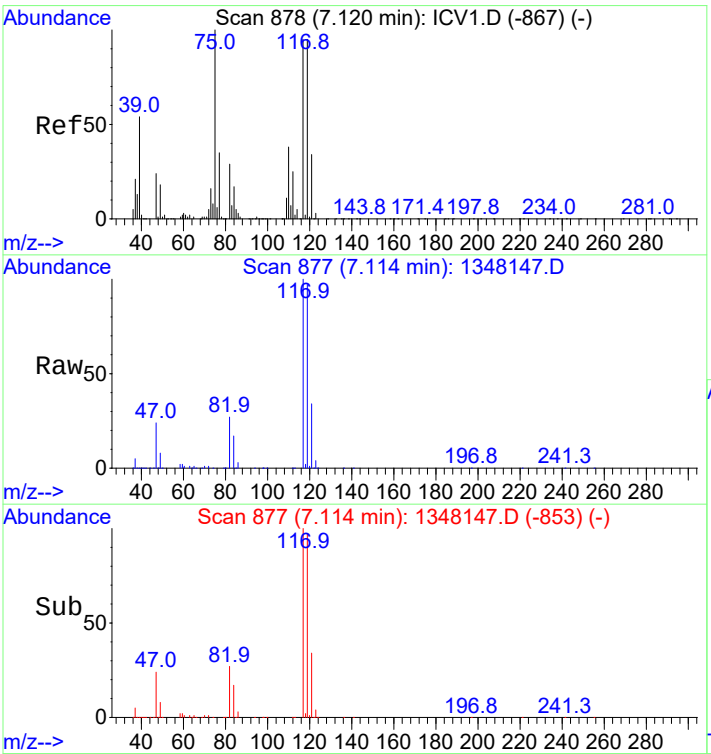


#39
Chloroform
Concen: 9.90 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.01 min
Lab File: 1348147.D
Acq: 21 Jul 2023 23:31

Tgt Ion: 83 Resp: 189501

Ion	Ratio	Lower	Upper
83	100		
85	63.6	45.9	85.9

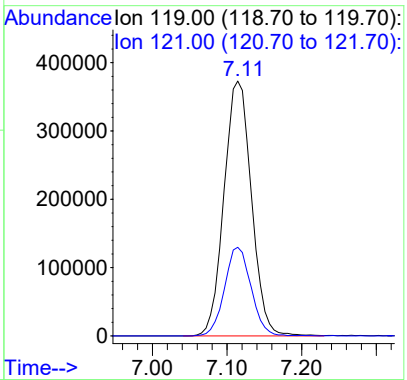


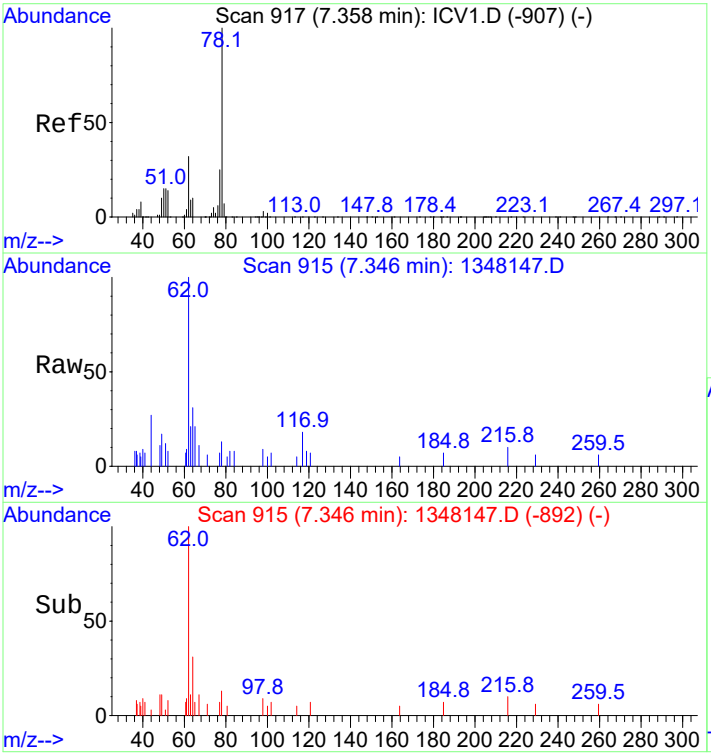


#43
Carbtetraclo
Concen: 76.08 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1348147.D
Acq: 21 Jul 2023 23:31

Tgt Ion:119 Resp: 955248

Ion	Ratio	Lower	Upper
119	100		
121	33.6	12.5	52.5

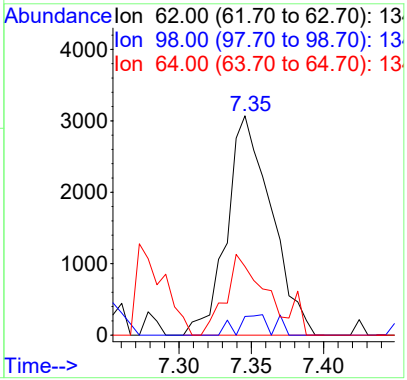


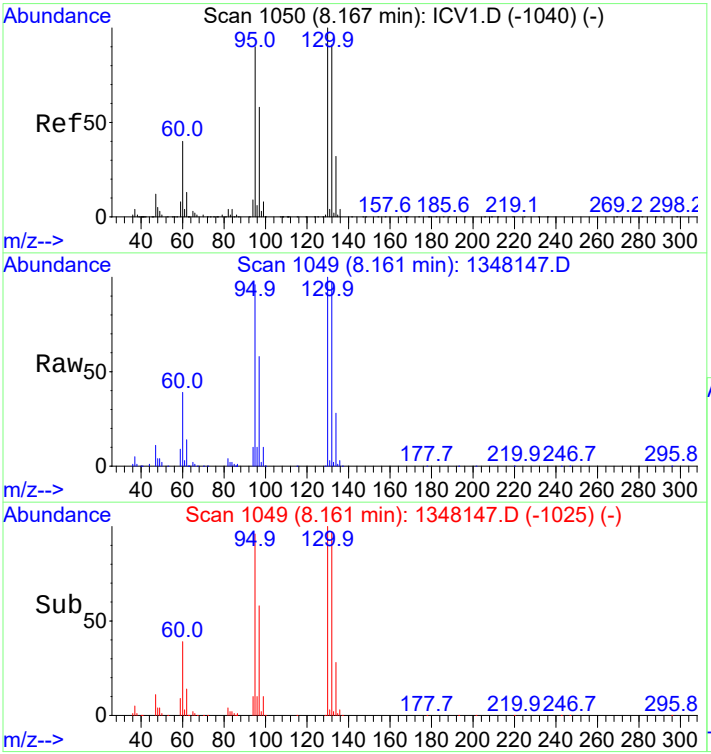


#47
12dichlorota
Concen: 0.41 ug/L
RT: 7.35 min Scan# 915
Delta R.T. -0.01 min
Lab File: 1348147.D
Acq: 21 Jul 2023 23:31

Tgt Ion: 62 Resp: 6575

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	30.0
64	0.0	12.6	52.6#

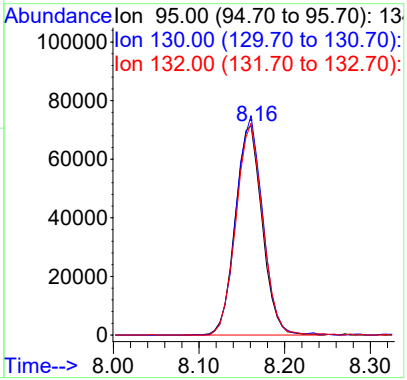




#49
trichloroete
Concen: 13.40 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.01 min
Lab File: 1348147.D
Acq: 21 Jul 2023 23:31

Tgt Ion: 95 Resp: 155948

Ion	Ratio	Lower	Upper
95	100		
130	103.8	80.1	120.1
132	100.5	76.8	116.8



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348148.D Vial: 24
Acq On : 21 Jul 2023 23:59 Operator: DGS-RLD
Sample : 273706,1348148, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:20:20 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1011235	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	763818	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	369548	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	253859	19.758	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.26	102	70507	19.976	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100 %			
61) SURRd8Tolule	9.70	98	985128	19.927	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %			
83) SURR4BrFBenz	13.24	95	383222	20.301	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	0.00	43	0	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348148.D Vial: 24
Acq On : 21 Jul 2023 23:59 Operator: DGS-RLD
Sample : 273706,1348148, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:20:20 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	15.48	146	6798	0.3230 ug/L #	41
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348148.D Vial: 24
Acq On : 21 Jul 2023 23:59 Operator: DGS-RLD
Sample : 273706,1348148, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:20:20 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

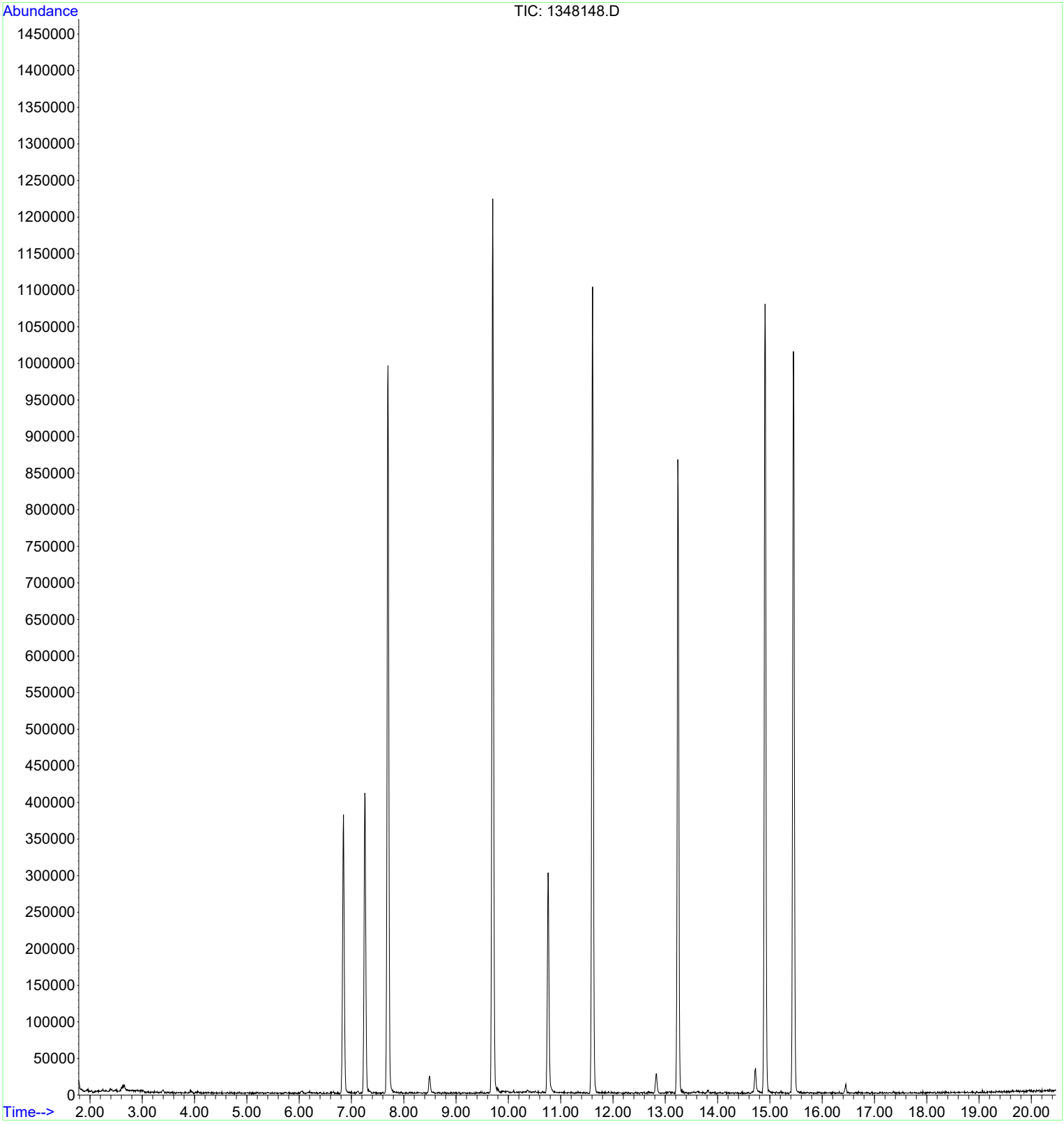
(#) = qualifier out of range (m) = manual integration

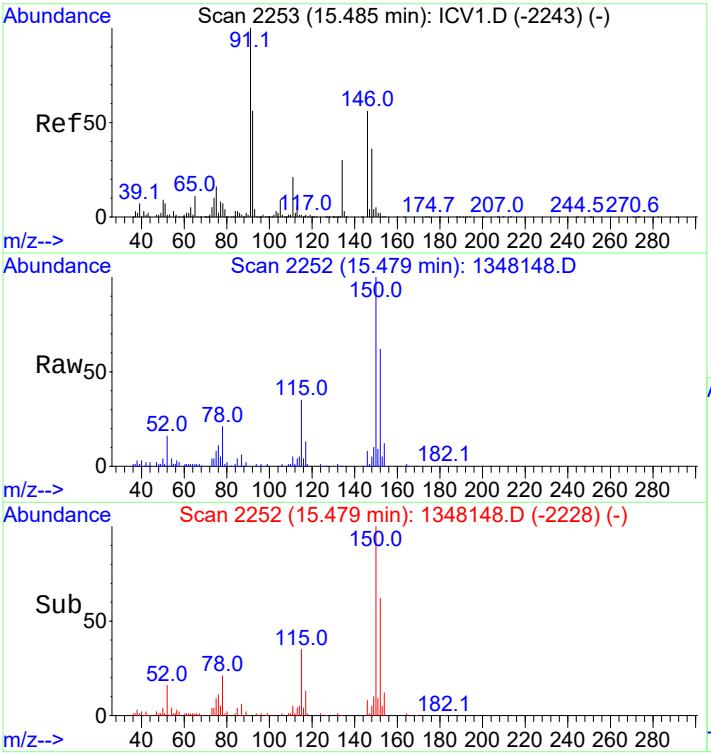
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1348148.D Vial: 24
Acq On : 21 Jul 2023 23:59 Operator: DGS-RLD
Sample : 273706,1348148, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:20:20 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

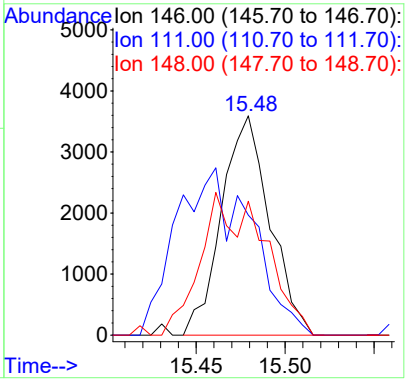




#98
12dichlorobe
Concen: 0.32 ug/L
RT: 15.48 min Scan# 2252
Delta R.T. -0.01 min
Lab File: 1348148.D
Acq: 21 Jul 2023 23:59

Tgt Ion:146 Resp: 6798

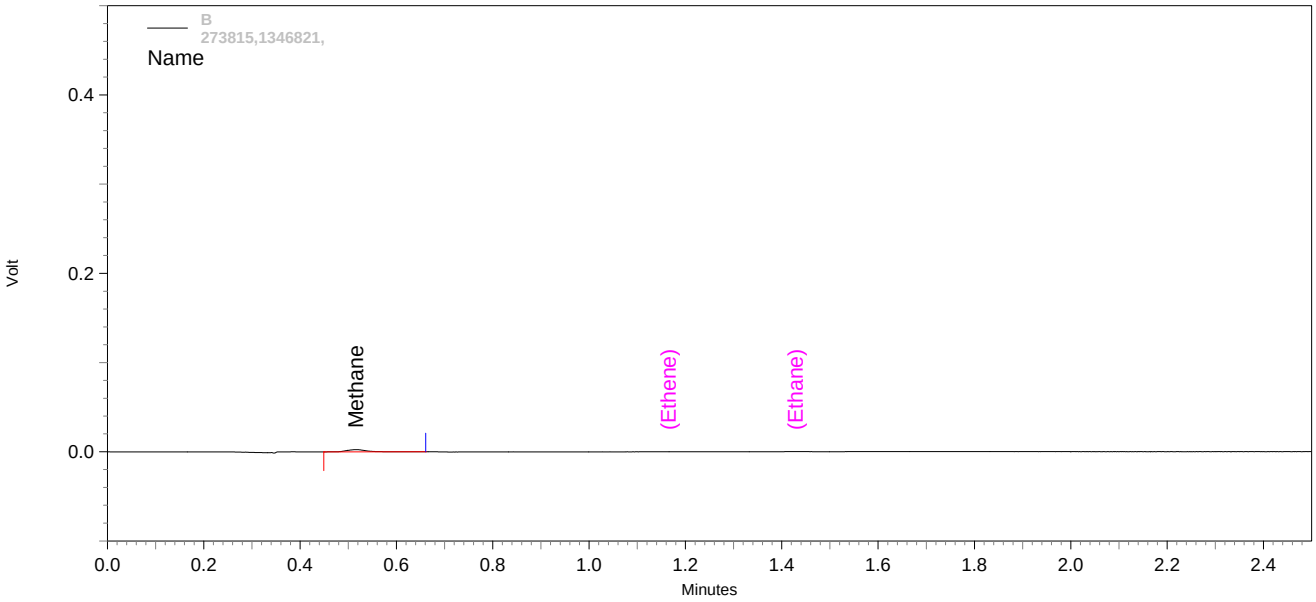
Ion	Ratio	Lower	Upper
146	100		
111	118.3	23.7	63.7#
148	84.3	46.5	86.5



Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1346821,
Acquired: Jul 20, 2023 09:50:50
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



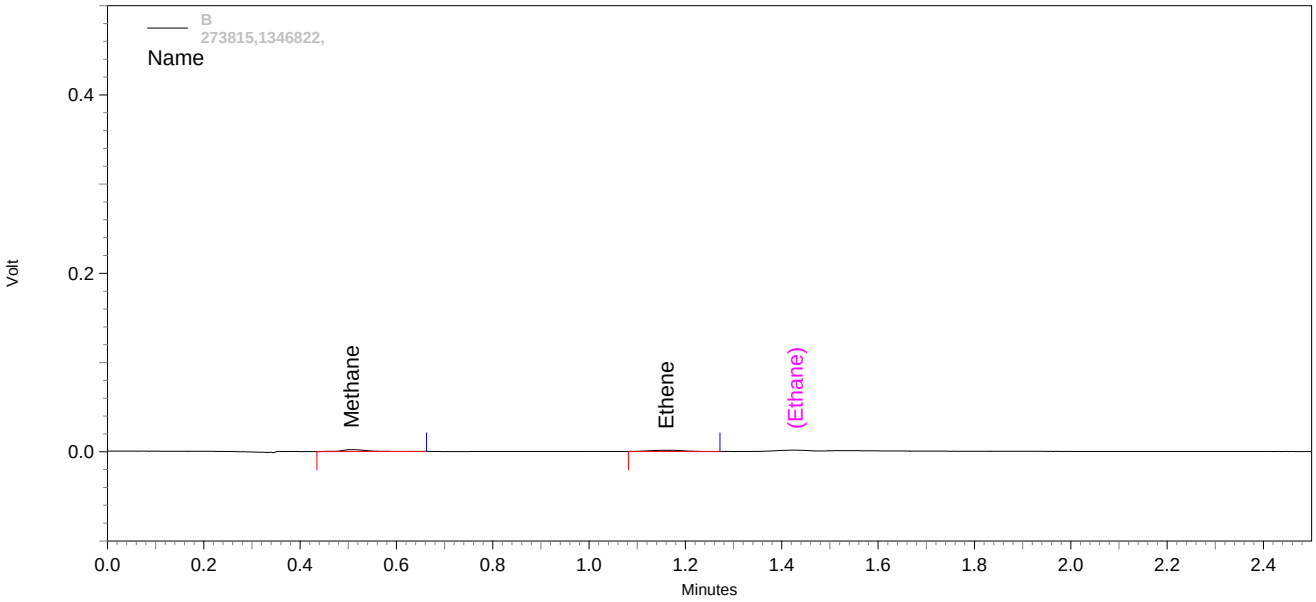
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.516**	**0.515**	**8239**	**0.095**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1346822,
Acquired: Jul 20, 2023 10:05:55
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



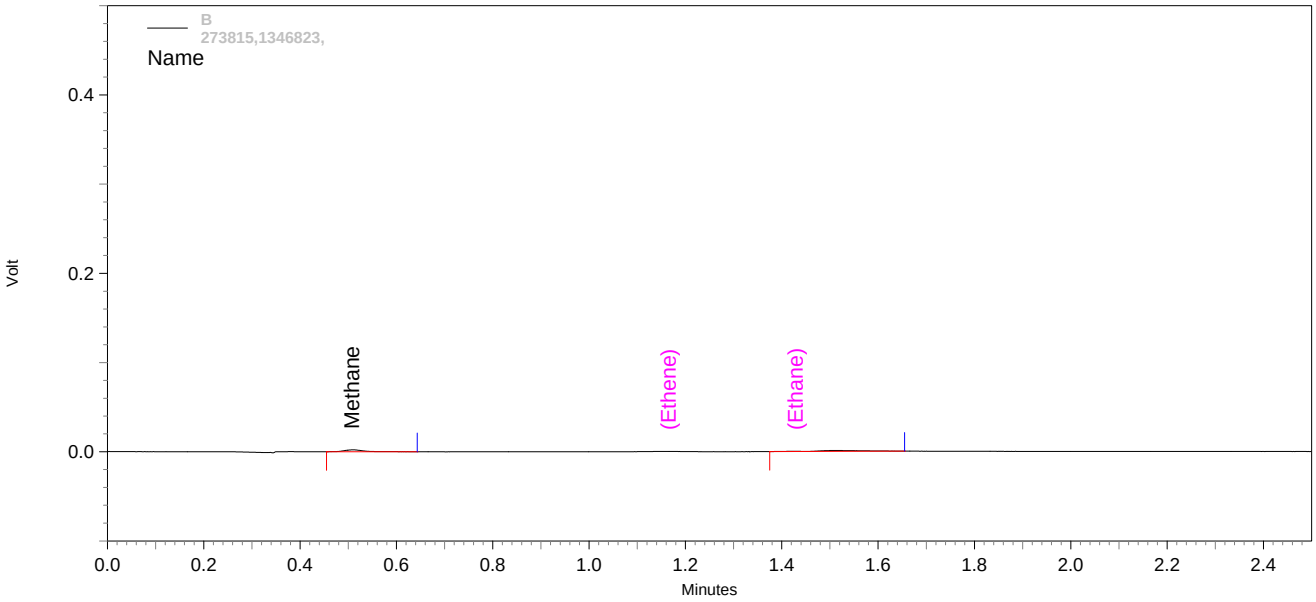
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.507**	**0.515**	**7603**	**0.015**	**ppmV**
2	**Ethene**	**1.160**	**1.165**	**6478**	**0.000**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1346823,
Acquired: Jul 20, 2023 10:09:54
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



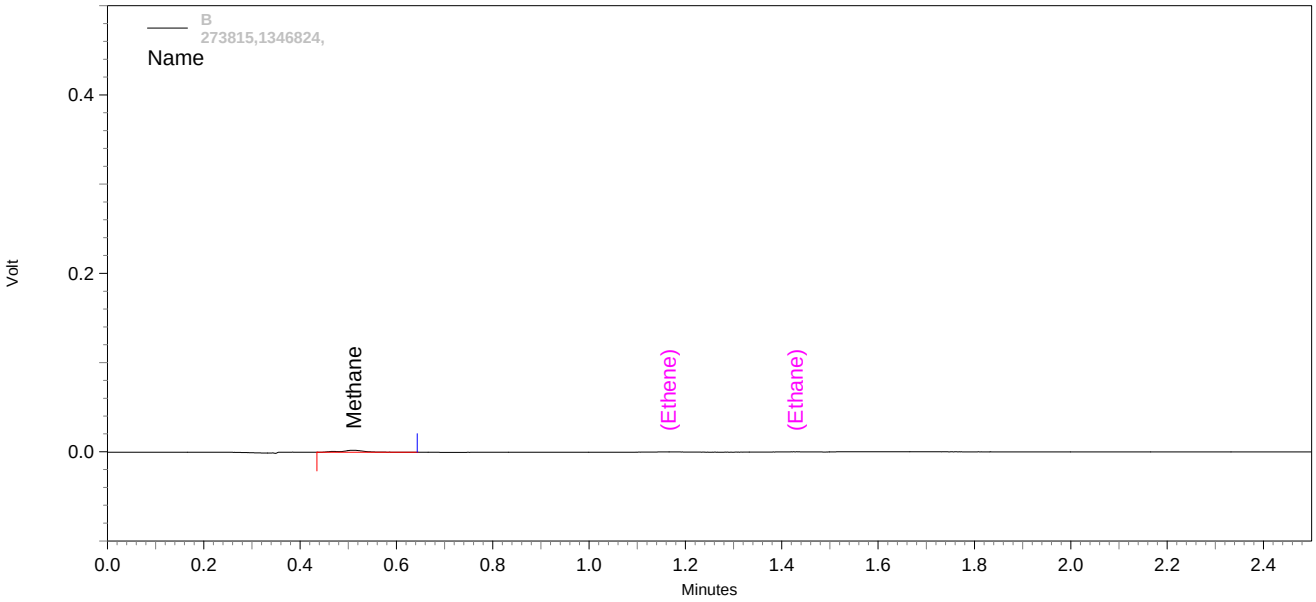
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.508**	**0.515**	**5607**	**0.000**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**
2		**1.506**	**0.000**	**6007**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1346824,
Acquired: Jul 20, 2023 10:14:09
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



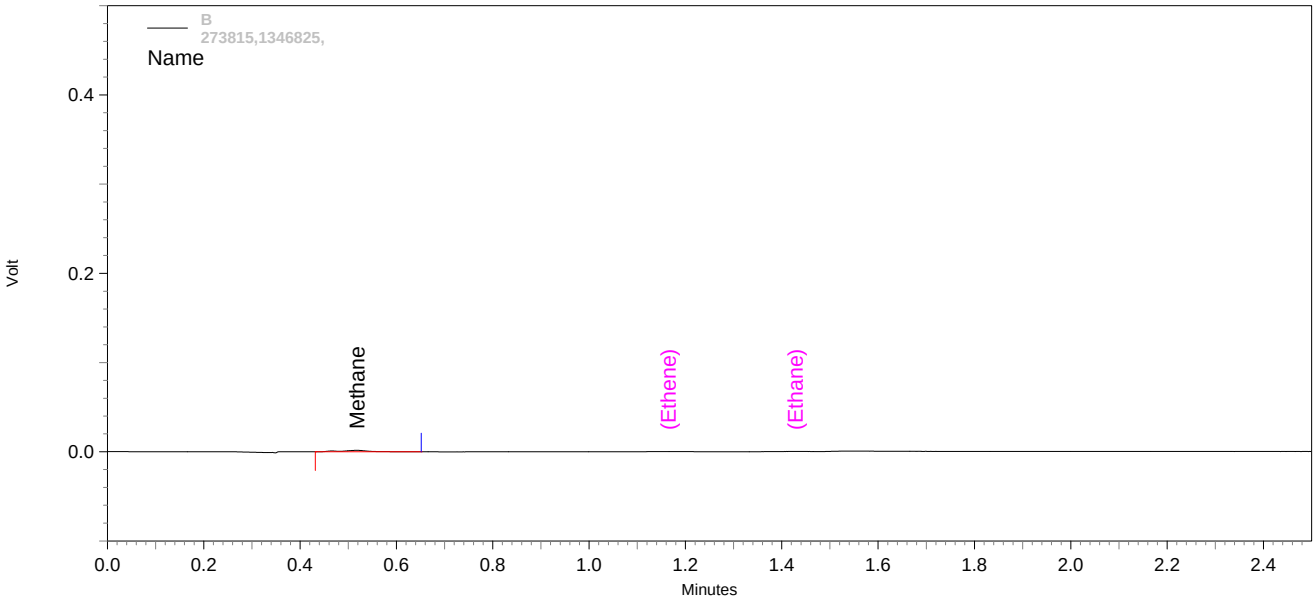
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.512**	**0.515**	**7659**	**0.022**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1346825,
Acquired: Jul 20, 2023 10:17:56
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



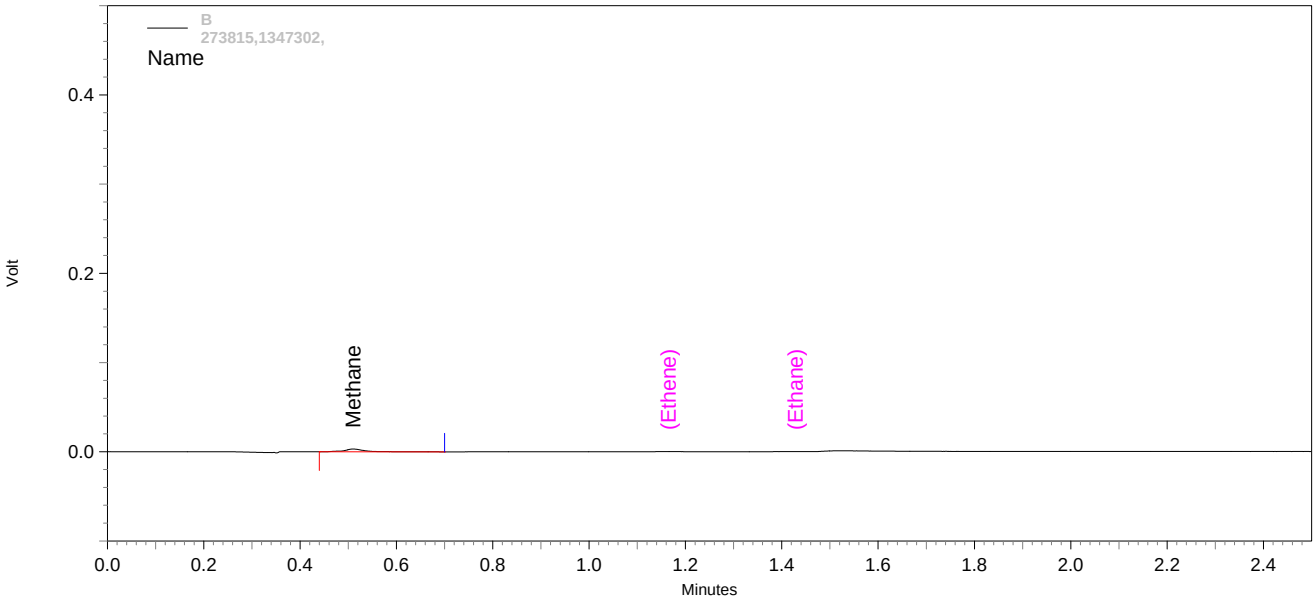
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.518**	**0.515**	**6416**	**0.000**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1347302,
Acquired: Jul 20, 2023 10:21:50
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



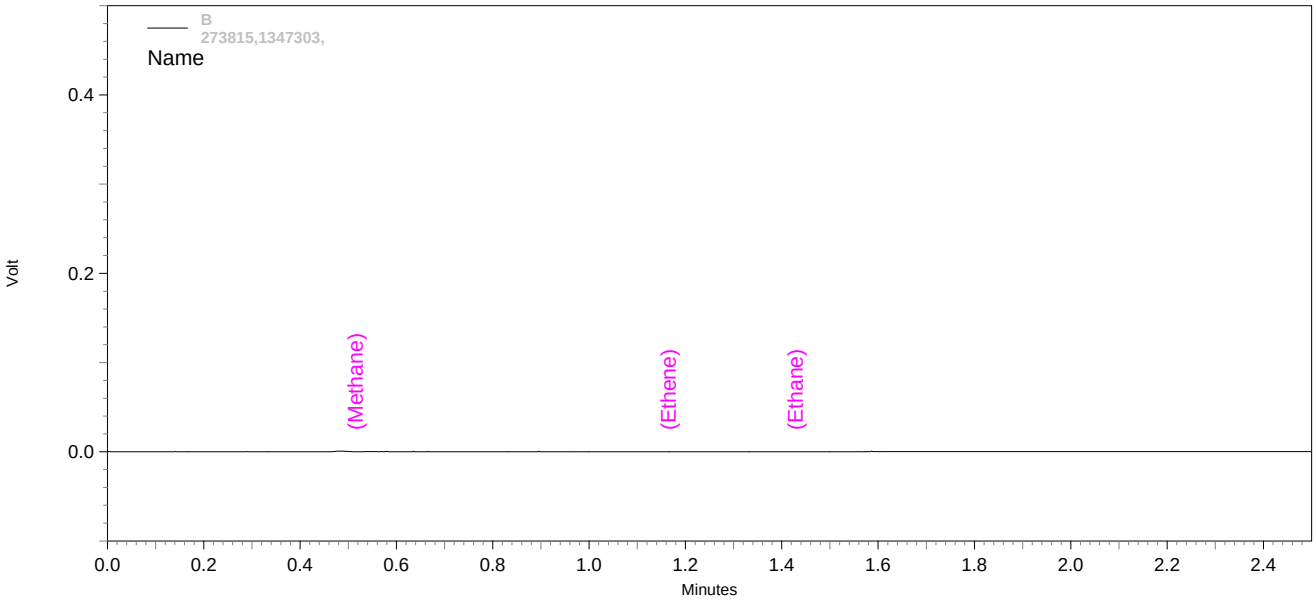
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.510**	**0.515**	**11075**	**0.450**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\013.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1347303,
Acquired: Jul 20, 2023 10:25:47
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



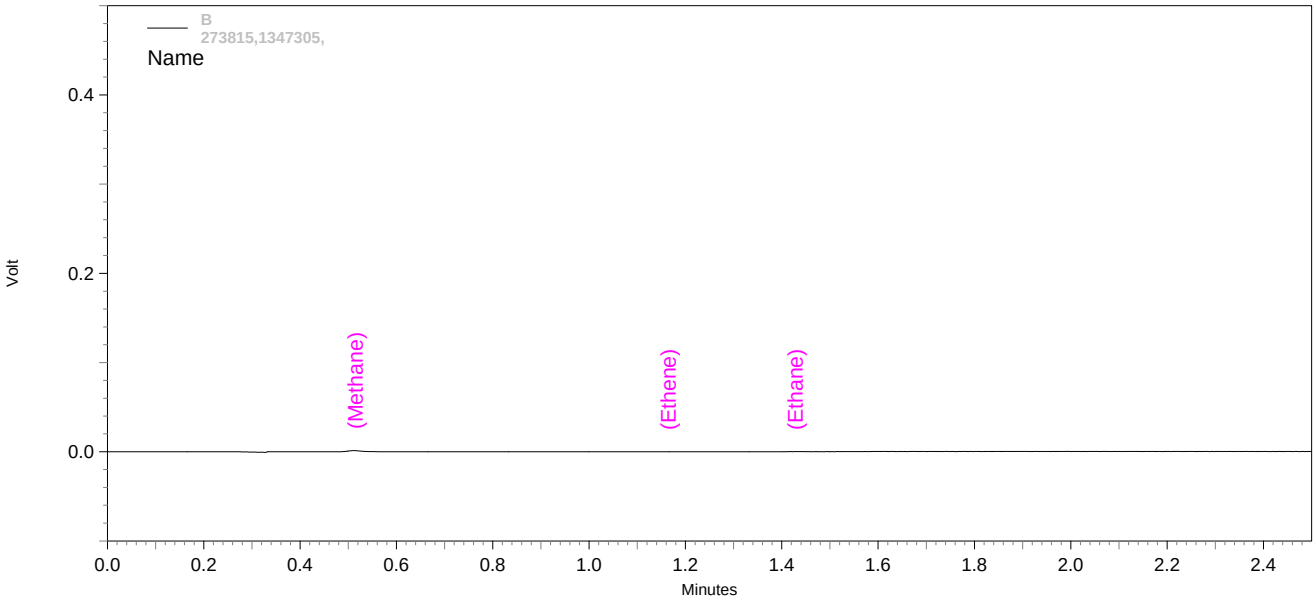
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.515**		**0.000 BDL**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\015.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1347305,
Acquired: Jul 20, 2023 10:36:40
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



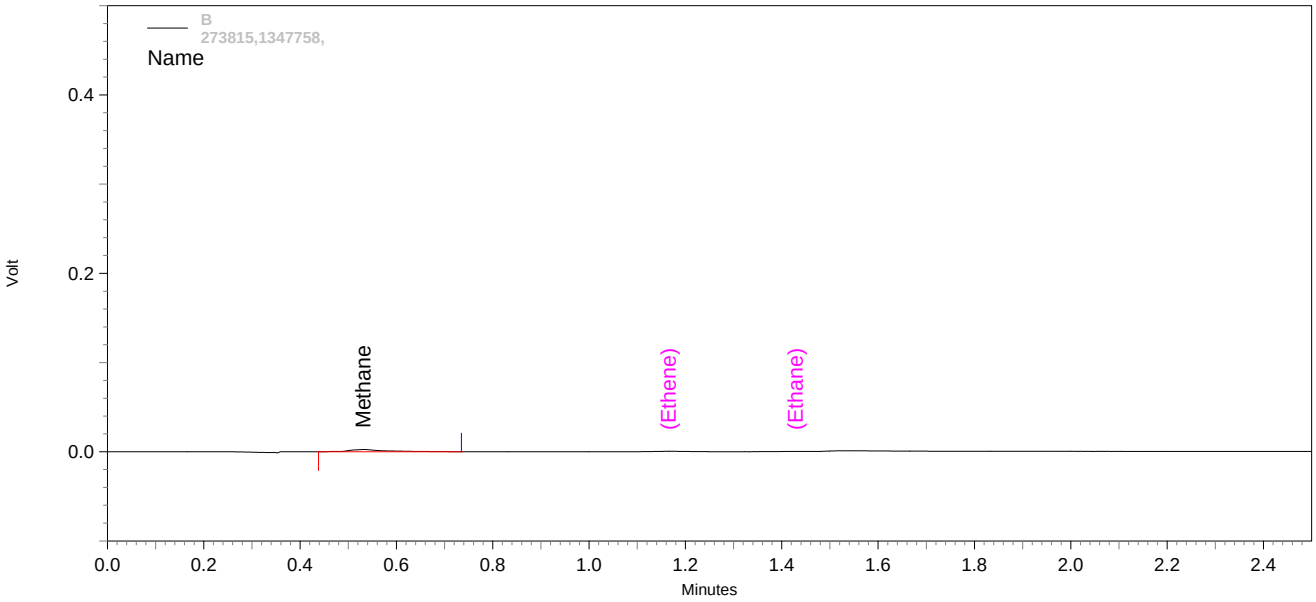
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.515**		**0.000 BDL**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\016.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1347758,
Acquired: Jul 20, 2023 10:41:24
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



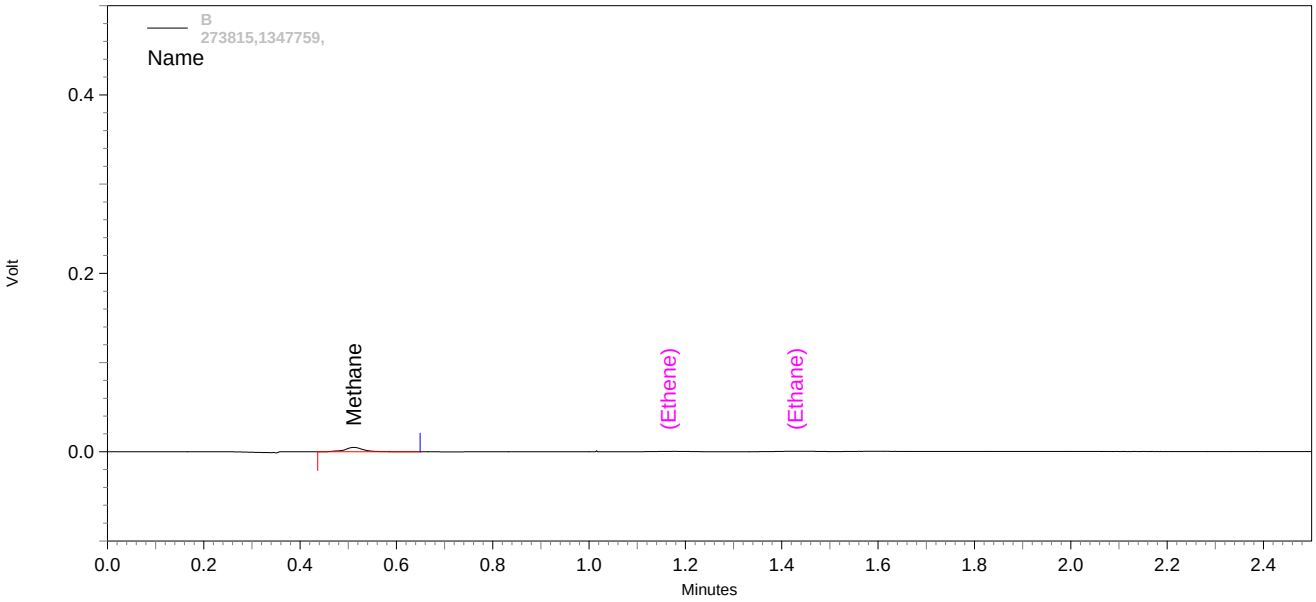
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.531**	**0.515**	**14432**	**0.870**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\018.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1347759,
Acquired: Jul 20, 2023 10:54:30
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



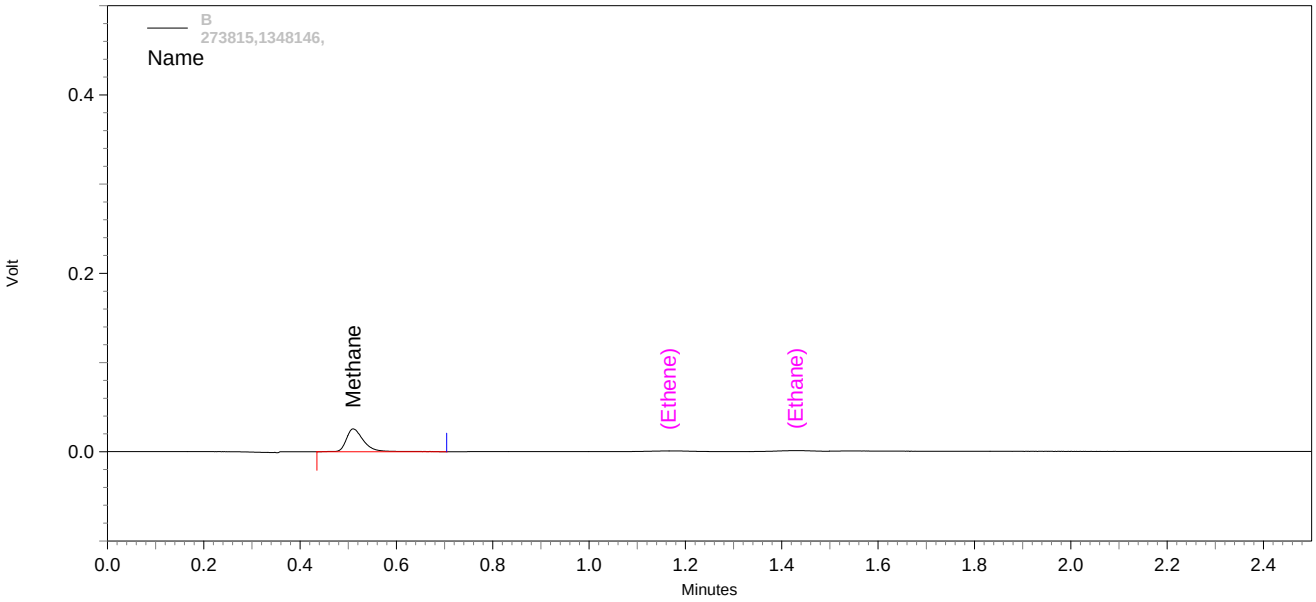
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.512**	**0.515**	**13709**	**0.780**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\019.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1348146,
Acquired: Jul 20, 2023 10:58:06
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



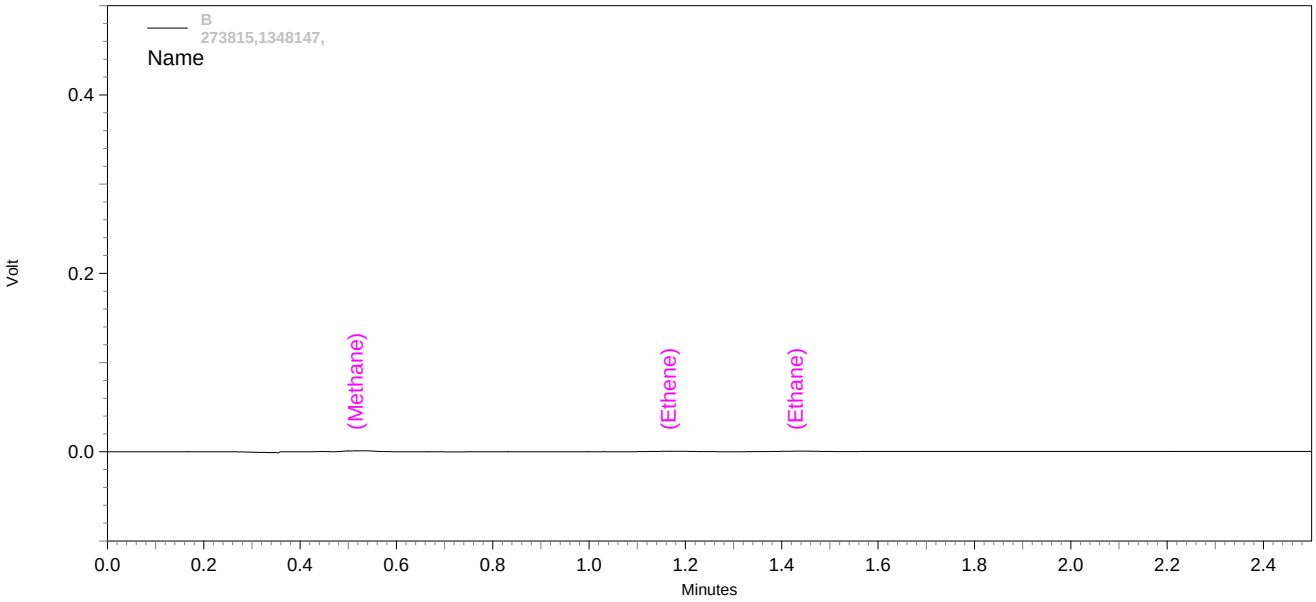
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.510**	**0.515**	**64464**	**7.135**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\020.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1348147,
Acquired: Jul 20, 2023 11:02:30
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



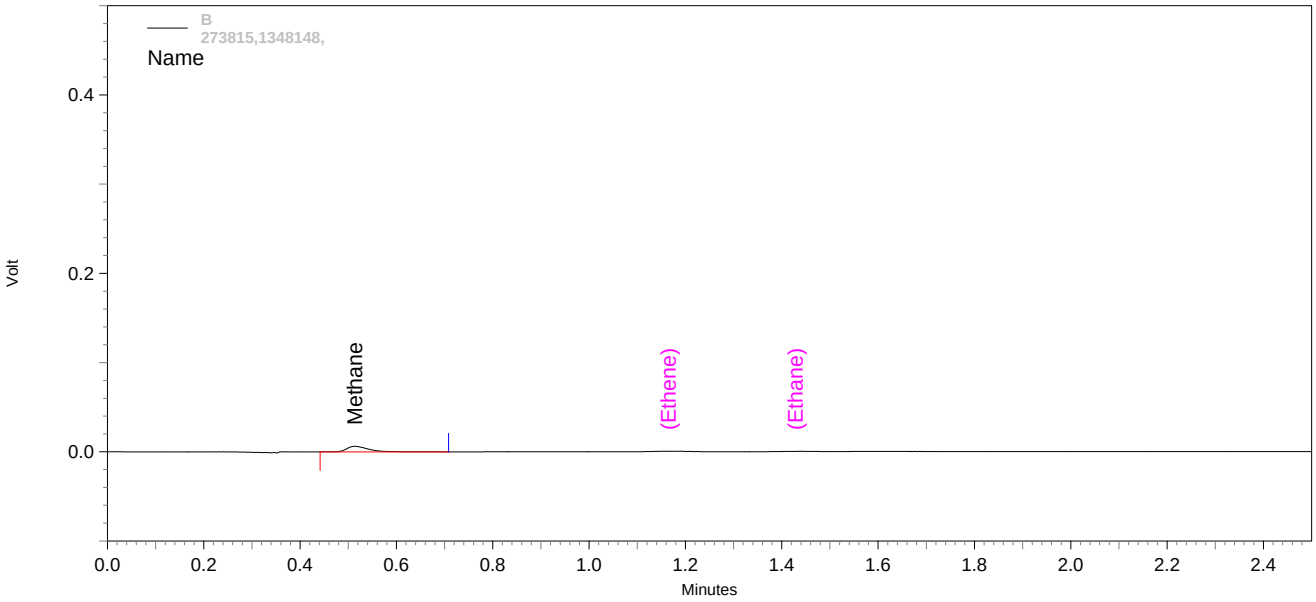
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.515**		**0.000 BDL**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\021.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1348148,
Acquired: Jul 20, 2023 11:07:09
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



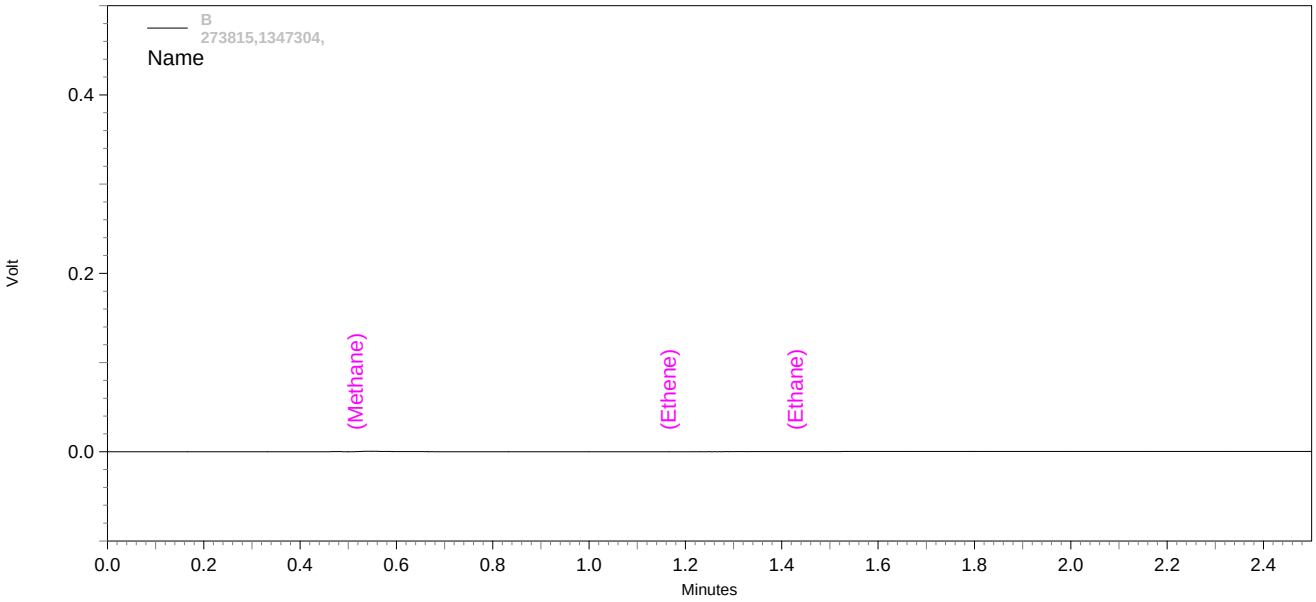
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.513**	**0.515**	**21682**	**1.778**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\014.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,1347304,
Acquired: Jul 20, 2023 10:32:39
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.515**		**0.000 BDL**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS

Method Path : C:\INSTARCH\METHODS\
Method File : W071823.M
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response Via : Initial Calibration

RO 07/21/2023

Calibration Files ug/L
1 0.5/5.0 =WCAL1.D 2 1.0/10.0 =WCAL2.D 3 2.0/20.0 =WCAL3.D
4 5.0/50.0 =WCAL4.D 5 10.0/100.0 =WCAL5.D 6 20.0/200.0 =WCAL6.D
7 30.0/300.0 =WCAL7.D 8 40.0/400.0 =WCAL8.D 9 80.0/800.0 =WCAL9.D

		Compound	1	2	3	4	5	6	7	Avg	%RSD
			8	9							
1)	I	FLUOROBENZENE**ISTD**	----------ISTD----------								
2)	PT	Dichlorodi	0.157	0.102	0.119	0.152	0.157	0.159	0.157	0.145	14.11
			0.156	0.147							
3)	PT	Chloromethan	0.233	0.197	0.206	0.201	0.188	0.184	0.177	0.193	9.87
			0.181	0.170							
4)	PT	VinylChlorid	0.165	0.148	0.184	0.205	0.198	0.193	0.187	0.183	9.59
			0.190	0.178							
5)	PT	Bromomethane		0.118	0.148	0.130	0.119	0.109	0.105	-----	
			0.103	0.082							
								Q	A= -0.010 R=1.000		
									B= 0.120		
									C= 0.002		
6)	PT	Chloroethane		0.115	0.113	0.119	0.124	0.122	0.118	0.119	3.57
			0.124	0.115							
7)	T	Dichloroflmetha	0.525	0.593	0.536	0.533	0.538	0.541	0.534	0.482	37.67
			0.540	0.001							
8)	PT	Trichlorofma	0.326	0.214	0.298	0.357	0.328	0.339	0.327	0.313	13.13
			0.325	0.299							
9)	T	Ethylether	0.218	0.198	0.210	0.202	0.185	0.196	0.196	0.199	5.35
			0.197	0.185							
10)	T	dichlorotfluoro	0.553	0.560	0.482	0.476	0.571	0.578	0.582	0.545	7.57
			0.580	0.526							
11)	T	propyleneoxide		0.043	0.047	0.043	0.040	0.044	0.043	0.043	5.00
			0.044	0.040							
12)	T	Acrolein		0.053	0.052	0.046	0.045	0.048	0.047	0.048	6.79
			0.048	0.044							
13)	PT	11dichlorthe	0.178	0.138	0.172	0.201	0.192	0.199	0.196	0.184	10.81
			0.195	0.183							
14)	PT	Trichlorotfluor	0.211	0.132	0.185	0.223	0.216	0.218	0.215	0.201	14.22
			0.212	0.196							
15)	PT	Acetone	0.133	0.124	0.118	0.100	0.113	0.098	0.089	-----	
			0.100	0.082							
								Q	A= -0.001 R=0.997		
									B= 0.105		
									C= 0.006		
16)	T	Iodomethane		0.144	0.154	0.191	0.220	0.241	0.249	-----	
			0.250	0.237							
								Q	A= -0.003 R=1.000		
									B= 0.267		
									C= -0.028		
17)	PT	Carbon Dislf	0.521	0.419	0.479	0.532	0.510	0.509	0.495	0.489	7.44
			0.492	0.446							
18)	T	allylchloride	0.347	0.300	0.316	0.329	0.317	0.324	0.315	0.315	6.34
			0.310	0.274							
19)	PT	methylacetate		0.068	0.065	0.060	0.062	0.063	0.064	0.064#	4.17
			0.068	0.064							
20)	PT	Methylchlorid	0.329	0.239	0.235	0.217	0.203	0.207	0.203	-----	
			0.204	0.189							
								Q	A= -0.006 R=1.000		
									B= 0.213		
									C= 0.001		
21)	T	tbutylalcohol	0.024	0.022	0.024	0.022	0.022	0.024	0.023	0.023	7.05

```
                  0.023 0.019
22) T   Acrylonitrile       0.100 0.109 0.098 0.094 0.100 0.094 0.097   6.92
                  0.095 0.085
23) PT  t12dichlorte    0.209 0.203 0.211 0.216 0.210 0.210 0.206 0.208   2.44
                  0.212 0.198
24) PT  MtBE            0.663 0.590 0.644 0.600 0.596 0.603 0.587 0.600   6.36
                  0.590 0.527
25) T   Hexane          0.336 0.207 0.291 0.372 0.349 0.349 0.341 -----
                  0.336 0.298
                                                    Q  A= -0.009 R=1.000
                                                       B=  0.374
                                                       C= -0.010
26) PT  11dichlorota    0.435 0.390 0.399 0.392 0.382 0.379 0.372 0.385   6.45
                  0.374 0.342
27) T   Vinylacetate    0.501 0.457 0.499 0.477 0.426 0.390 0.343 -----
                  0.302
                                                    Q  A= -0.008 R=1.000
                                                       B=  0.471
                                                       C=  0.021
28) T   chloroprene     0.376 0.288 0.369 0.408 0.380 0.376 0.360 0.358  10.36
                  0.353 0.310
29) T   Diisopether     0.730 0.649 0.757 0.749 0.709 0.712 0.682 0.696   7.26
                  0.672 0.600
30) T   ETBE            0.687 0.638 0.675 0.682 0.639 0.645 0.641 0.645   5.56
                  0.634 0.567
31) T   22dichloropr    0.324 0.254 0.276 0.303 0.294 0.309 0.303 0.296   7.02
                  0.309 0.291
32) PT  c12dichlorte    0.269 0.233 0.225 0.251 0.229 0.233 0.229 0.235   6.76
                  0.232 0.214
33) PT  2Butanone             0.038 0.037 0.033 0.035 0.035 0.033 0.035#  5.57
                  0.036 0.033
34) T   propionitrile         0.043 0.044 0.040 0.039 0.042 0.040 0.041   5.98
                  0.041 0.036
35) T   Ethylacetate          0.011 0.012 0.010 0.010 0.011 0.011 0.011   5.29
                  0.011 0.011
36) T   methacrylonitri       0.094 0.107 0.102 0.096 0.106 0.103 0.101   4.75
                  0.104 0.096
37) T   Bromochlorma    0.113 0.106 0.110 0.112 0.100 0.107 0.104 0.106   5.13
                  0.103 0.097
38) T   Tetrahydofur    0.088 0.085 0.089 0.080 0.076 0.081 0.076 0.079   9.70
                  0.075 0.064
39) PT  Chloroform      0.415 0.367 0.384 0.388 0.366 0.372 0.364 0.372   6.18
                  0.362 0.330
40) PT  111trichlota    0.302 0.264 0.301 0.329 0.323 0.332 0.328 0.313   7.02
                  0.328 0.312
41) S   SURRDibrflma    0.252 0.250 0.254 0.248 0.254 0.253 0.263 0.254   1.70
                  0.257 0.255
42) PT  Cyclohexane     0.393 0.257 0.351 0.431 0.419 0.426 0.415 0.389  14.24
                  0.418 0.388
43) PT  Carbtetraclo    0.255 0.159 0.217 0.254 0.246 0.261 0.264 0.244  14.68
                  0.274 0.266
44) T   11dicloprope          0.084 0.095 0.115 0.105 0.112 0.112 0.106  10.24
                  0.114 0.110
45) S   SURR12DCAd4     0.071 0.071 0.069 0.071 0.070 0.068 0.068 0.070   1.62
                  0.070 0.070
46) PT  Benzene         0.980 0.836 0.900 0.931 0.866 0.854 0.821 0.854   9.57
                  0.809 0.693
47) PT  12dichlorota    0.345 0.331 0.326 0.321 0.305 0.307 0.301 0.312   6.67
                  0.300 0.275
48) T   TAME            0.640 0.558 0.595 0.587 0.560 0.581 0.572 0.575   5.80
                  0.568 0.516
49) PT  trichloroete    0.252 0.207 0.225 0.241 0.226 0.221 0.224 0.226   6.01
                  0.227 0.212
50) PT  methylcyclohexa 0.416 0.255 0.370 0.464 0.446 0.449 0.447 -----
                  0.447 0.412
                                                    Q  A= -0.016 R=1.000
                                                       B=  0.479
                                                       C= -0.008
51) PT  12dicloropra    0.248 0.238 0.260 0.246 0.228 0.233 0.235 0.238   4.93
                  0.235 0.220
```

```
52) T   23Dicl1propene        0.322 0.347 0.364 0.339 0.353 0.354 0.345   4.20
                      0.354 0.328
53) T   Dibromometha          0.121 0.140 0.131 0.129 0.132 0.132 0.131   4.14
                      0.134 0.128
54) T   methylmethacryl       0.145 0.163 0.158 0.166 0.180 0.181 0.169   8.03
                      0.185 0.173
55) T   14dioxane             0.003 0.003 0.003 0.003 0.003 0.003 0.003   4.21
                      0.003 0.003
56) PT  Bromodiclrma    0.298 0.227 0.258 0.259 0.261 0.272 0.275 0.265   7.27
                      0.278 0.260
57) T   2Nitropropane   0.047 0.043 0.045 0.046 0.050 0.063 0.065 -----
                      0.068 0.063
                                                    Q  A= -0.000 R=0.998
                                                       B=  0.071
                                                       C= -0.038
58) T   2CLEVE                0.068 0.087 0.076 0.068 0.083 0.084 0.080  10.33
                      0.089 0.083
59) PT  c13dicloproe    0.339 0.289 0.305 0.334 0.331 0.347 0.349 0.329   6.23
                      0.346 0.323
60) PT  4Meth2Pentan    0.234 0.230 0.246 0.225 0.210 0.206 0.185 0.214  11.47
                      0.176
61) S   SURRd8Tolule    0.964 0.980 0.980 0.977 0.981 0.979 0.983 0.978   0.73
                      0.986 0.969
62) PT  Toluene         0.618 0.565 0.590 0.582 0.556 0.557 0.542 0.558   7.25
                      0.535 0.474
63) PT  t13Dicloprop    0.271 0.242 0.248 0.263 0.275 0.291 0.297 0.276   8.12
                      0.308 0.290
64) T   ethylmethacryla       0.260 0.281 0.276 0.278 0.298 0.287 0.278   5.37
                      0.291 0.254
65) PT  112Triclotha          0.170 0.163 0.173 0.163 0.169 0.167 0.165   3.60
                      0.165 0.154
66) PT  Tetrachlorte    0.255 0.214 0.240 0.258 0.246 0.254 0.250 0.245   5.61
                      0.252 0.235
67) T   13Diclorpropa   0.410 0.344 0.376 0.366 0.349 0.357 0.347 0.357   7.19
                      0.348 0.316

68) I   d5-CHLOROBENZENE**IST ----------------ISTD--------------------
69) PT  2Hexanone             0.236 0.250 0.220 0.223 0.212 0.192 0.210  14.49
                      0.197 0.151
70) PT  Clorodibrmta    0.233 0.222 0.233 0.246 0.236 0.262 0.266 0.250   8.06
                      0.277 0.272
71) PT  12Dibrometha    0.287 0.251 0.278 0.267 0.264 0.271 0.269 0.270   3.84
                      0.278 0.263
72) PT  Chlorobenzen    0.929 0.816 0.840 0.814 0.781 0.778 0.752 0.793   8.90
                      0.760 0.670
73) T   1Clhexane        0.490 0.332 0.381 0.414 0.417 0.425 0.412 0.412  10.22
                      0.433 0.399
74) T   1112Tetclota           0.222 0.233 0.235 0.245 0.257 0.260 0.248   6.99
                      0.272 0.262
75) PT  Ethylbenzene    1.531 1.291 1.387 1.471 1.360 1.341 1.282 1.335   9.78
                      1.271 1.076
76) PT  m p-Xylene      0.560 0.464 0.529 0.544 0.524 0.521 0.503 0.510   7.41
                      0.506 0.440
77) PT  o-Xylene        0.483 0.481 0.527 0.513 0.500 0.512 0.502 0.499   4.12
                      0.509 0.460
78) PT  Styrene         0.805 0.782 0.799 0.830 0.815 0.827 0.813 0.801   4.13
                      0.815 0.721
79) PT  Bromoform             0.108 0.131 0.133 0.143 0.161 0.166 -----
                      0.180 0.182
                                                    Q  A=  0.003 R=0.999
                                                       B=  0.171
                                                       C= -0.008
80) PT  Isopropylben    1.313 1.150 1.242 1.354 1.286 1.266 1.223 1.231   7.84
                      1.215 1.028
81) T   cyclohexanone         0.047 0.049 0.044 0.048 0.047 0.043 0.046   6.50
                      0.049 0.042

82) I   d4-1,4-DICHLOROBENZEN ----------------ISTD--------------------
83) S   SURR4BrFBenz    1.042 1.019 1.030 1.022 1.029 1.019 1.018 1.022   1.07
                      1.012 1.004
```

84)	T	Bromobenzene	0.749	0.634	0.693	0.664	0.651	0.661	0.644	0.661	6.21
			0.643	0.605							
85)	PT	1122Tetrclta	0.754	0.722	0.746	0.732	0.682	0.715	0.689	0.708	5.09
			0.687	0.641							
86)	T	123Triclproa		0.864	0.891	0.883	0.821	0.884	0.869	0.871	2.78
			0.897	0.859							
87)	T	14dichloro2bute		0.158	0.149	0.170	0.177	0.203	0.206	0.187	14.29
			0.216	0.218							
88)	T	n-Propylbenz	3.223	2.671	2.883	3.203	2.956	2.886	2.747	2.829	10.74
			2.657	2.230							
89)	T	2chlorotolue	2.057	1.826	1.895	1.943	1.765	1.759	1.709	1.788	9.53
			1.672	1.469							
90)	T	4chlorotolue	2.206	2.022	2.084	2.185	2.063	2.016	1.958	2.014	7.84
			1.915	1.677							
91)	T	135Trimebenz	2.115	1.944	2.020	2.196	2.133	2.071	2.014	2.019	6.97
			1.965	1.713							
92)	T	tbutylbenzen	1.945	1.475	1.697	1.890	1.806	1.800	1.753	1.736	8.83
			1.724	1.533							
93)	T	124Trimetben	2.177	1.843	2.059	2.133	2.034	2.006	1.948	1.974	7.98
			1.910	1.660							
94)	T	sbutylbenzen	2.564	2.028	2.344	2.643	2.530	2.487	2.366	2.363	9.64
			2.318	1.991							
95)	PT	13Diclorbenz	1.239	1.176	1.236	1.220	1.156	1.162	1.141	1.165	5.62
			1.125	1.030							
96)	T	pIsopropylto	2.092	1.711	2.088	2.248	2.160	2.117	2.069	2.032	8.70
			2.036	1.769							
97)	PT	14dichlorobe	1.337	1.202	1.286	1.250	1.169	1.202	1.172	1.201	6.96
			1.144	1.050							
98)	PT	12dichlorobe	1.347	1.157	1.195	1.161	1.121	1.115	1.092	1.139	8.66
			1.081	0.984							
99)	T	nButylbenzen	1.879	1.547	1.748	1.961	1.855	1.863	1.816	1.779	7.86
			1.772	1.568							
100)	PT	12dibromo3cl		0.116	0.112	0.111	0.110	0.136	0.140	0.128	13.45
			0.149	0.148							
101)	T	135Trichloroben	0.897	0.755	0.796	0.822	0.771	0.786	0.795	0.798	5.40
			0.802	0.755							
102)	PT	124Trichlobe	0.575	0.567	0.637	0.634	0.613	0.658	0.677	0.633	6.53
			0.683	0.653							
103)	T	Hexachlorobu	0.316	0.242	0.234	0.290	0.279	0.278	0.285	0.278	9.19
			0.293	0.283							
104)	T	Naphthalene	0.800	0.911	1.114	1.183	1.150	1.446	1.424	-----	
			1.505	1.348							
								Q	A= -0.055	R=0.998	
									B= 1.593		
									C= -0.076		
105)	T	123Trichlben	0.491	0.491	0.555	0.561	0.540	0.579	0.594	0.555	7.51
			0.608	0.577							

Total Average %RSD 7.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

W071823.M Wed Jul 19 07:49:41 2023

Data File : C:\INSTARCH\DATA\JUL1823\BFB1.D Vial: 1
Acq On : 18 Jul 2023 9:47 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	6191	PASS
75	95	30	60	50.8	16875	PASS
95	95	100	100	100.0	33237	PASS
96	95	5	9	7.5	2488	PASS
173	174	0.00	2	0.6	163	PASS
174	95	50	100	80.2	26656	PASS
175	174	5	9	8.5	2257	PASS
176	174	95	101	98.7	26312	PASS
177	176	5	9	7.3	1930	PASS

W071823.M Wed Jul 19 07:53:08 2023

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL1.D Vial: 4
Acq On : 18 Jul 2023 11:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:09:54 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1041398	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	770641	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	371354	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	262197	20.237 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.27	102	73438	20.387 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.71	98	1003578	19.266 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %		
83) SURR4BrFBenz	13.25	95	386784	20.846 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 104 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	4083m	1.0849 ug/L #	41
3) Chloromethan	2.10	50	6069	0.5650 ug/L #	43
4) VinylChlorid	2.24	62	4287	0.3885 ug/L #	42
5) Bromomethane	2.69	94	5631	0.7709 ug/L #	70
6) Chloroethane	2.87	64	3356	0.4518 ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	8494	0.4985 ug/L #	94
9) Ethylether	3.71	59	5683	0.5124 ug/L	88
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	3.76	58	11767	4.9966 ug/L	90
12) Acrolein	3.84	56	6784	8.1695 ug/L	95
13) 11dichlorthe	3.99	96	4624	0.4364 ug/L #	68
14) Trichlorotfluoroeth	4.02	101	10970	0.9801 ug/L	93
15) Acetone	4.06	43	34646m	7.1102 ug/L	98
16) Iodomethane	4.16	142	8287	0.5356 ug/L #	82
17) Carbon Dislf	4.25	76	27114	0.9751 ug/L	98
18) allylchloride	4.48	41	18048	1.0234 ug/L	94
19) methylacetate	4.53	74	1952m	0.7413 ug/L #	0
20) Methylchlorid	4.63	84	8578m	0.3669 ug/L	93
21) tbutylalcohol	4.83	59	30914	64.5479 ug/L	92
22) Acrylonitrile	4.94	53	14096	3.2608 ug/L	98
23) t12dichlorte	5.01	96	5432	0.4501 ug/L #	83
24) MtBE	5.03	73	17265	0.5215 ug/L	98
25) Hexane	5.40	57	17492	0.9653 ug/L	98
26) 11dichlorota	5.53	63	11321	0.5272 ug/L #	88
27) Vinylacetate	5.63	43	130373	4.9721 ug/L	92
28) chloroprene	5.67	53	19553	1.0039 ug/L	95
29) Diisopether	5.68	45	19011	0.4951 ug/L	90
30) ETBE	6.14	59	17886	0.4898 ug/L	96
31) 22dichloropr	6.28	77	8426	0.4977 ug/L #	79
32) c12dichlorte	6.26	96	6995	0.5174 ug/L	98
33) 2Butanone	6.29	72	10116	6.4392 ug/L	95
34) propionitrile	6.32	54	11377	6.7790 ug/L #	54
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	6.54	67	5872	1.1723 ug/L #	75
37) Bromochlorma	6.55	128	2954	0.4753 ug/L	92
38) Tetrahydofur	6.65	42	22941	6.6467 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL1.D Vial: 4
Acq On : 18 Jul 2023 11:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:09:54 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.65	83	10804	0.5119	ug/L		96
40)	111trichlota	6.90	97	7874	0.4439	ug/L		96
42)	Cyclohexane	6.99	56	10242	0.4767	ug/L		96
43)	Carbtetraclo	7.13	119	6633	0.4828	ug/L	#	42
44)	11dicloprope	7.11	110	3232	0.5229	ug/L	#	79
46)	Benzene	7.36	78	25503	0.5144	ug/L		90
47)	12dichlorota	7.36	62	8992	0.5437	ug/L	#	91
48)	TAME	7.53	73	16671	0.5124	ug/L		96
49)	trichloroete	8.16	95	6555	0.5084	ug/L		98
50)	methylcyclohexane	8.43	83	10838	0.4470	ug/L		98
51)	12dicloropra	8.43	63	6463	0.4883	ug/L	#	93
52)	23Dicl1propene	8.49	75	10259	0.5137	ug/L		97
53)	Dibromometha	8.57	93	3904	0.5563	ug/L		91
54)	methylmethacrylate	8.59	69	4906	0.5514	ug/L	#	41
55)	14dioxane	8.61	88	4498	43.6729	ug/L	#	62
56)	Bromodiclrma	8.76	83	7769	0.5256	ug/L	#	92
57)	2Nitropropane	9.04	43	12177	14.7434	ug/L		92
58)	2CLEVE	9.16	63	9338	1.8540	ug/L		98
59)	c13dicloproe	9.34	75	8828	0.4724	ug/L	#	51
60)	4Meth2Pentan	9.54	43	60973m	6.2446	ug/L		96
62)	Toluene	9.80	92	16102	0.5073	ug/L		100
63)	t13Dicloprop	10.05	75	7053	0.4554	ug/L	#	72
64)	ethylmethacrylate	10.20	69	13522	0.8975	ug/L		93
65)	112Triclotha	10.29	83	4692	0.5266	ug/L		90
66)	Tetrachlorte	10.53	166	6634	0.4881	ug/L		87
67)	13Diclorpropa	10.51	76	10663	0.5496	ug/L		96
69)	2Hexanone	10.63	43	46319	6.9022	ug/L		92
70)	Clorodibrmta	10.81	129	4491	0.4759	ug/L	#	86
71)	12Dibrometha	10.97	107	5523	0.5487	ug/L		100
72)	Chlorobenzen	11.65	112	17899	0.5793	ug/L	#	62
73)	1Clhexane	11.63	91	9433	0.5451	ug/L	#	35
74)	1112Tetclota	11.76	131	3936	0.3989	ug/L		80
75)	Ethylbenzene	11.81	91	29505	0.5455	ug/L		99
76)	m p-Xylene	11.98	106	21594	1.0359	ug/L		99
77)	o-Xylene	12.52	106	9312	0.4451	ug/L	#	84
78)	Styrene	12.53	104	15517	0.4765	ug/L		98
79)	Bromoform	12.77	173	2564	0.4581	ug/L	#	28
80)	Isopropylben	13.05	105	25300	0.5063	ug/L		98
81)	cyclohexanone	13.13	55	17592	15.0750	ug/L	#	94
84)	Bromobenzene	13.47	156	6957	0.5695	ug/L		96
85)	1122Tetrclta	13.43	83	7002	0.6013	ug/L		86
86)	123Triclproa	13.49	75	9050	0.6346	ug/L		93
87)	14dichloro2butene	13.51	53	1617m	0.4780	ug/L	#	0
88)	n-Propylbenz	13.64	91	29924	0.5674	ug/L		94
89)	2chlorotolue	13.75	91	19099	0.5751	ug/L		97
90)	4chlorotolue	13.90	91	20479	0.5386	ug/L		91
91)	135Trimebenz	13.90	105	19637	0.5110	ug/L		95
92)	tbutylbenzen	14.37	119	18057	0.5496	ug/L		95
93)	124Trimetben	14.43	105	20210	0.5453	ug/L		93
94)	sbutylbenzen	14.69	105	23802	0.5295	ug/L		94
95)	13Diclorbenz	14.82	146	11505	0.5336	ug/L		91
96)	pIsopropylto	14.90	119	19420	0.5050	ug/L	#	94
97)	14dichlorobe	14.95	146	12410	0.5571	ug/L	#	60
98)	12dichlorobe	15.49	146	12506	0.5966	ug/L	#	63
99)	nButylbenzen	15.49	91	17447	0.4928	ug/L		98
100)	12dibromo3cl	16.58	157	1090m	0.5653	ug/L	#	0
101)	135Trichlorobenzene	16.91	180	8325	0.5359	ug/L	#	80

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JUL1823\WCAL1.D Vial: 4
Acq On : 18 Jul 2023 11:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:09:54 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	5334	0.4361 ug/L #	86
103) Hexachlorobu	17.97	225	2938	0.4780 ug/L #	18
104) Naphthalene	18.02	128	7426	0.3052 ug/L #	74
105) 123Trichlben	18.33	180	4556	0.4295 ug/L #	72

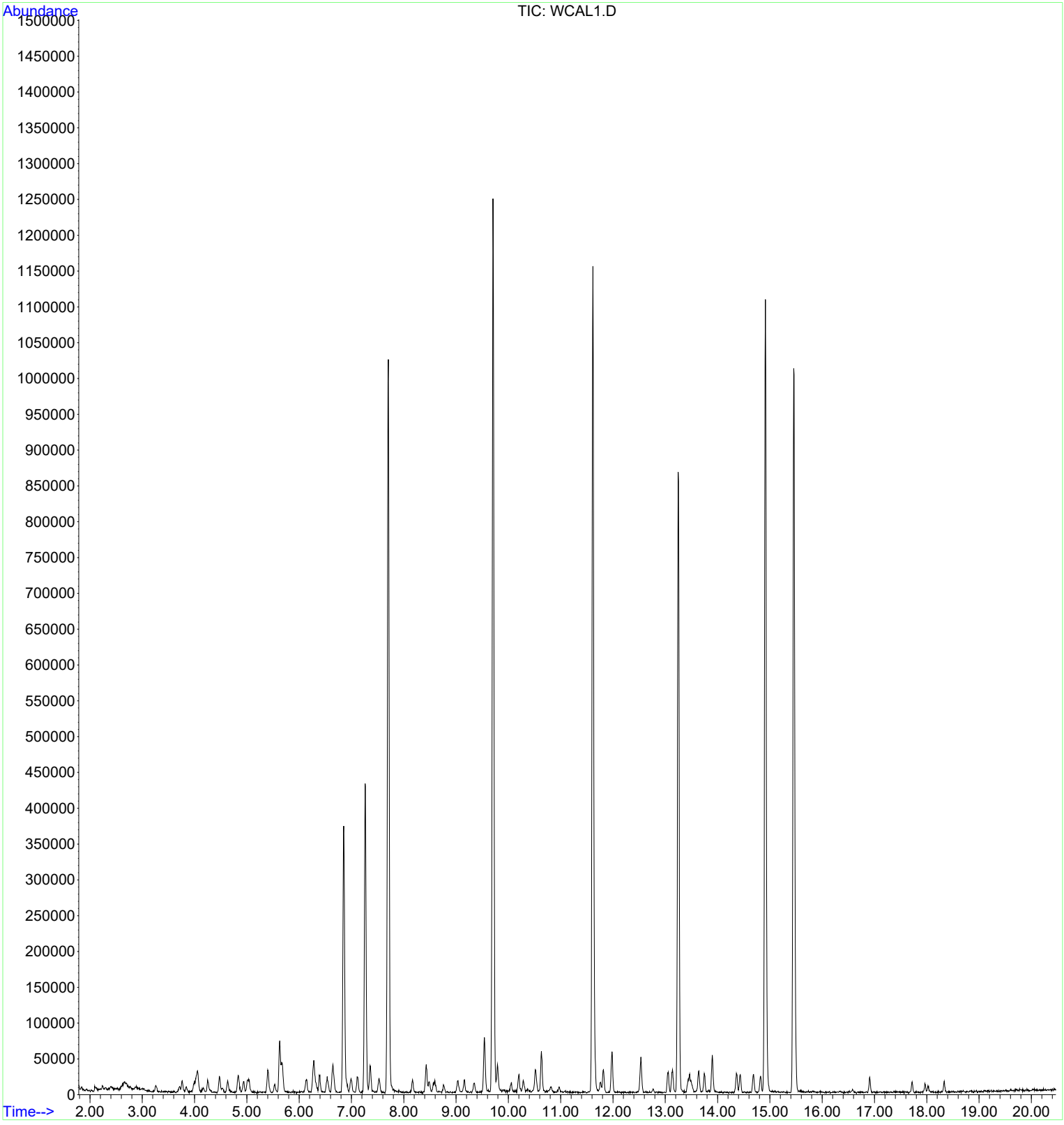
(#) = qualifier out of range (m) = manual integration

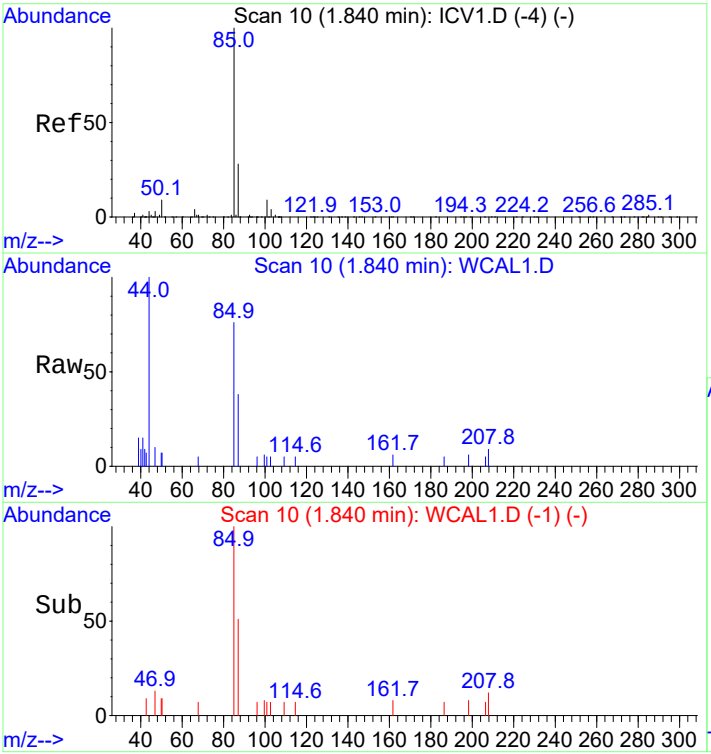
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL1.D Vial: 4
Acq On : 18 Jul 2023 11:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:09:54 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

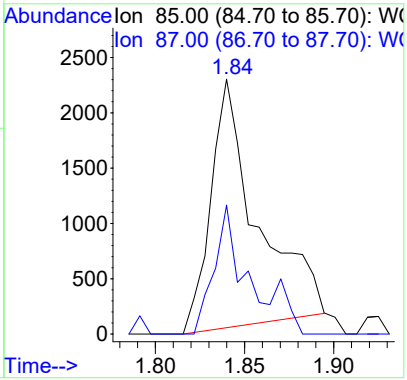


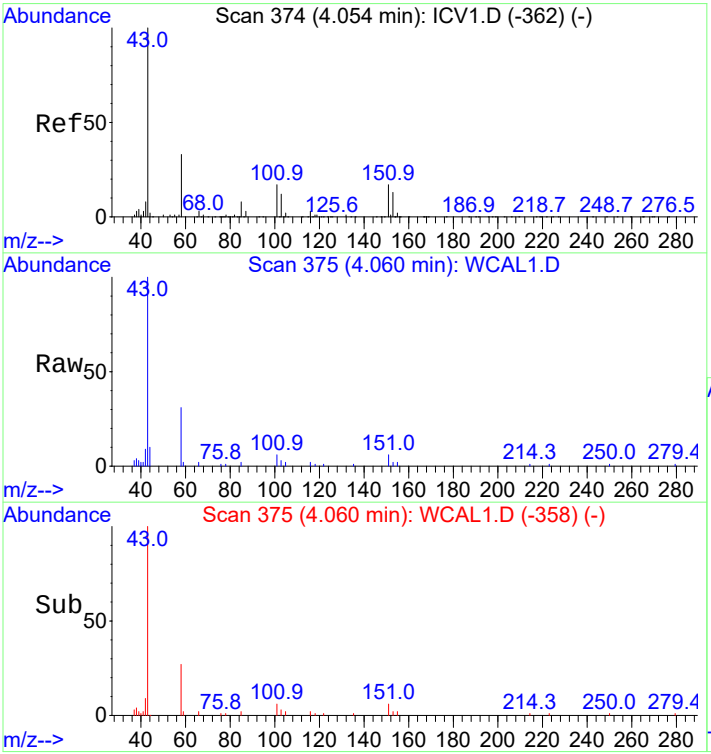


#2
Dichlorodi
Concen: 1.08 ug/L m
RT: 1.84 min Scan# 10
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 85 Resp: 4083

Ion	Ratio	Lower	Upper
85	100		
87	0.0	13.7	53.7#

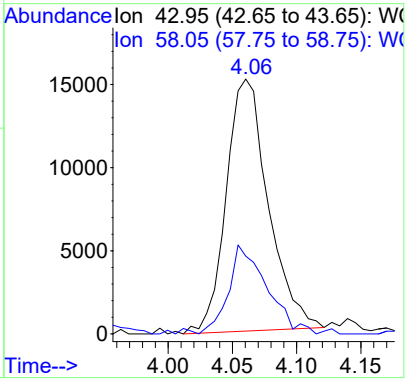




#15
Acetone
Concen: 7.11 ug/L m
RT: 4.06 min Scan# 375
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 43 Resp: 34646

Ion	Ratio	Lower	Upper
43	100		
58	32.1	12.2	52.2



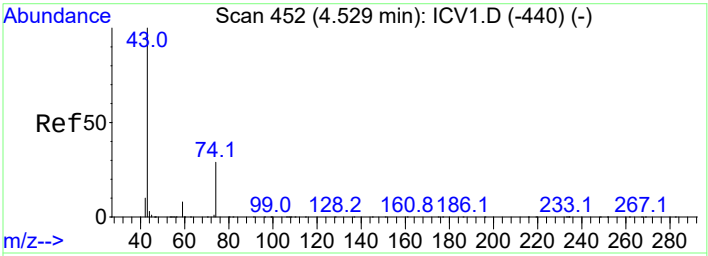
After Manual Integration

DGS 07/21/2023

RD 07/21/2023

After Manual Integration

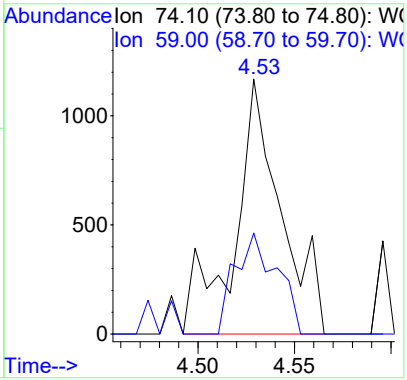
DGS 07/21/2023

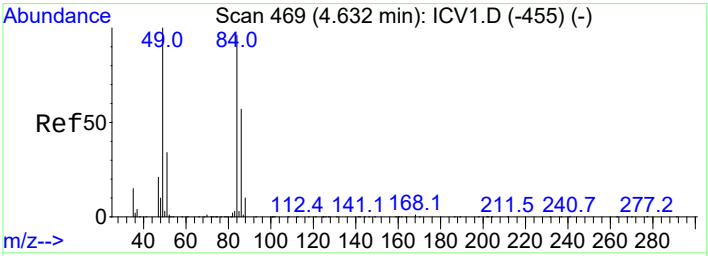


#19
methylacetate
Concen: 0.74 ug/L m
RT: 4.53 min Scan# 452
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 74 Resp: 1952

Ion	Ratio	Lower	Upper
74	100		
59	0.0	18.4	58.4#

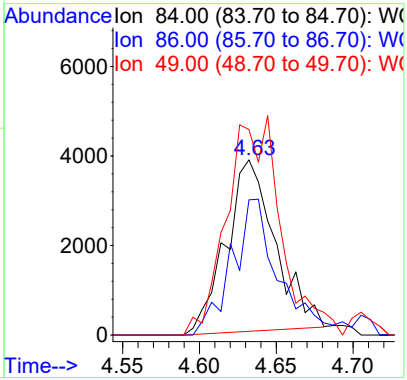




#20
Methylchlorid
Concen: 0.37 ug/L m
RT: 4.63 min Scan# 469
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 84 Resp: 8578

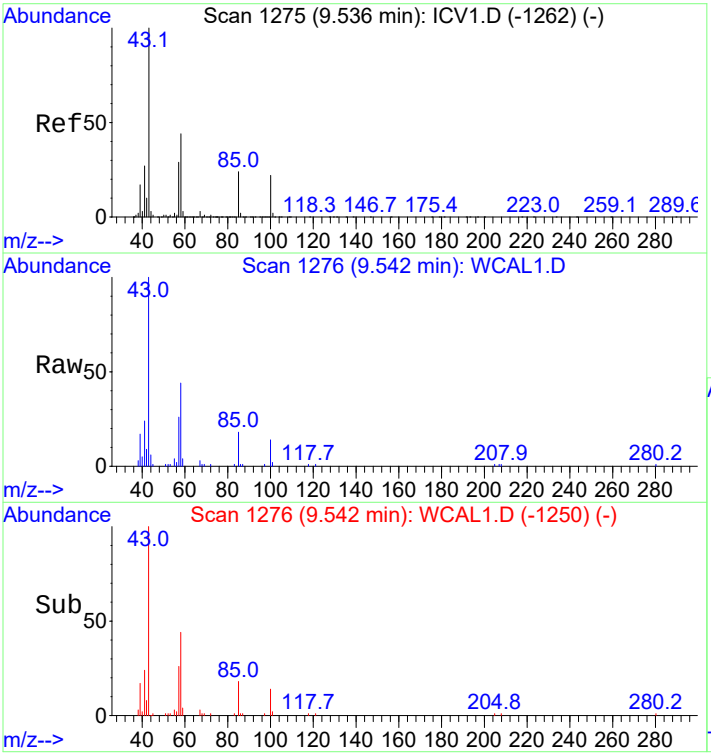
Ion	Ratio	Lower	Upper
84	100		
86	79.6	43.9	83.9
49	138.0	102.1	142.1



RD 07/21/2023

After Manual Integration

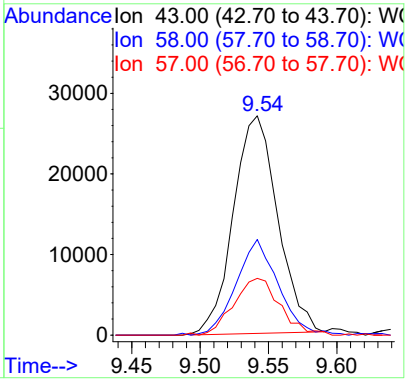
DGS 07/21/2023

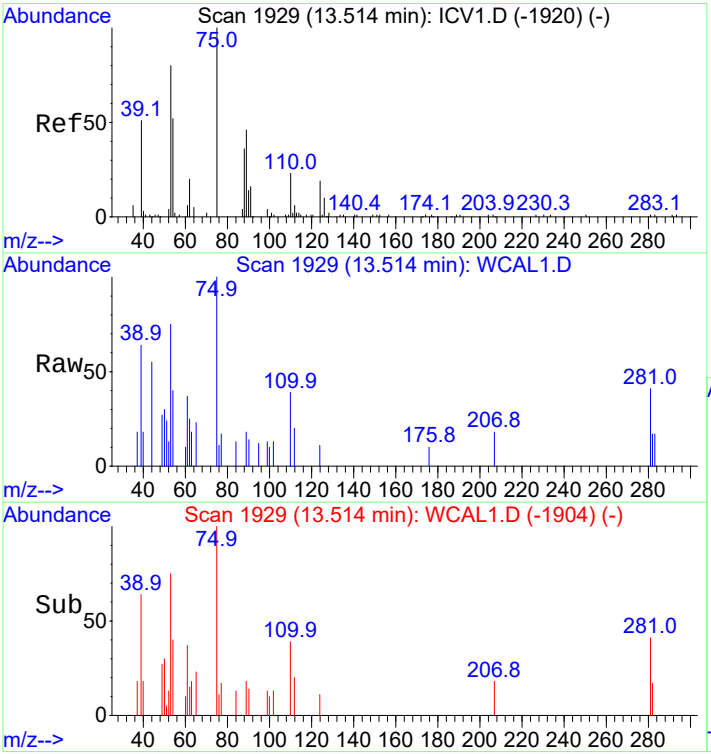


#60
4Meth2Pentan
Concen: 6.24 ug/L m
RT: 9.54 min Scan# 1276
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 43 Resp: 60973

Ion	Ratio	Lower	Upper
43	100		
58	41.8	23.5	63.5
57	27.3	8.1	48.1

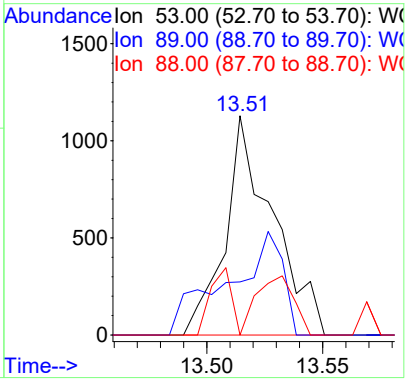




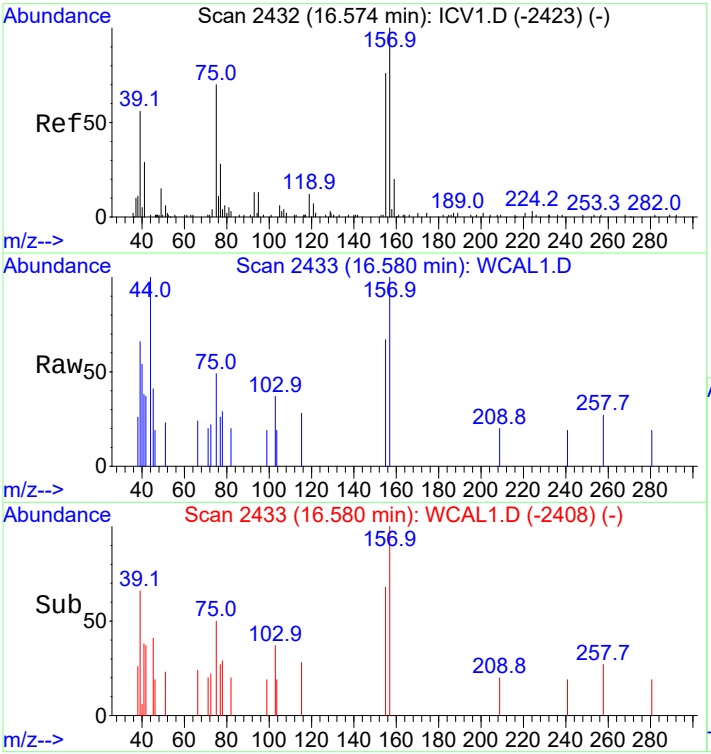
#87
14dichloro2butene
Concen: 0.48 ug/L m
RT: 13.51 min Scan# 1929
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 53 Resp: 1617

Ion	Ratio	Lower	Upper
53	100		
89	0.0	31.8	71.8#
88	0.0	22.7	62.7#



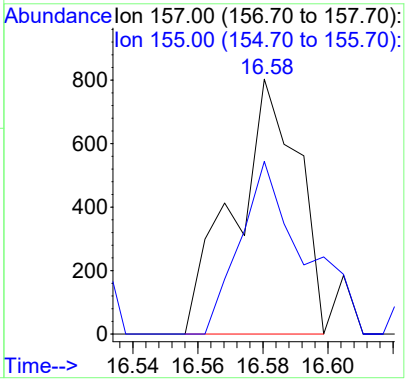
RD 07/21/2023



#100
12dibromo3cl
Concen: 0.57 ug/L m
RT: 16.58 min Scan# 2433
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion:157 Resp: 1090

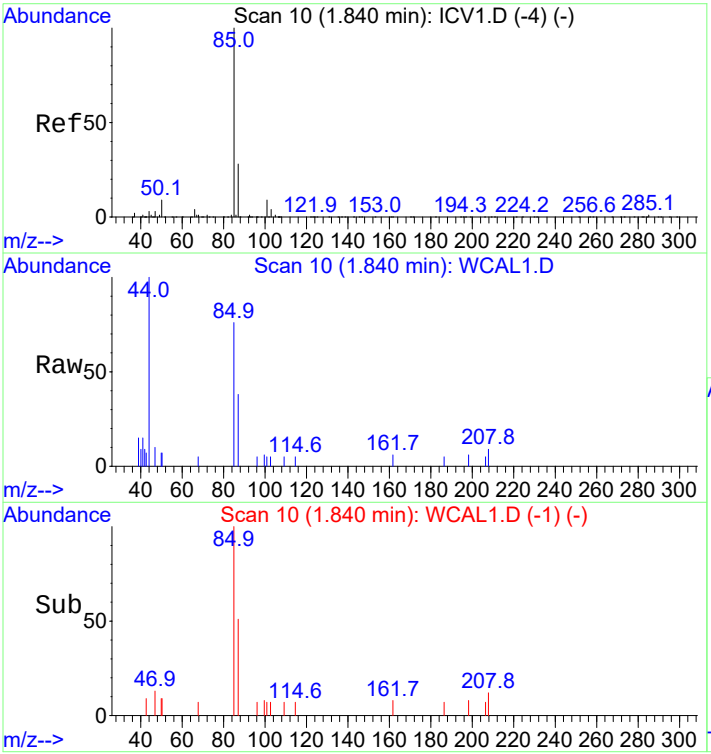
Ion	Ratio	Lower	Upper
157	100		
155	0.0	59.4	99.4#



After Manual Integration

DGS 07/21/2023

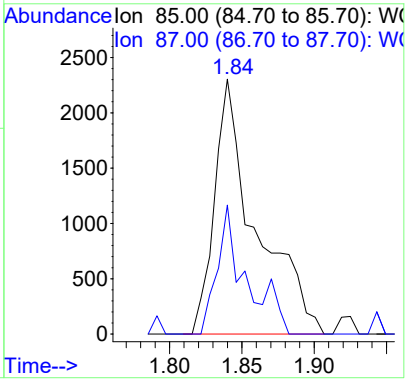
RO 07/21/2023



#2
Dichlorodi
Concen: 0.61 ug/L
RT: 1.84 min Scan# 10
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 85 Resp: 4580

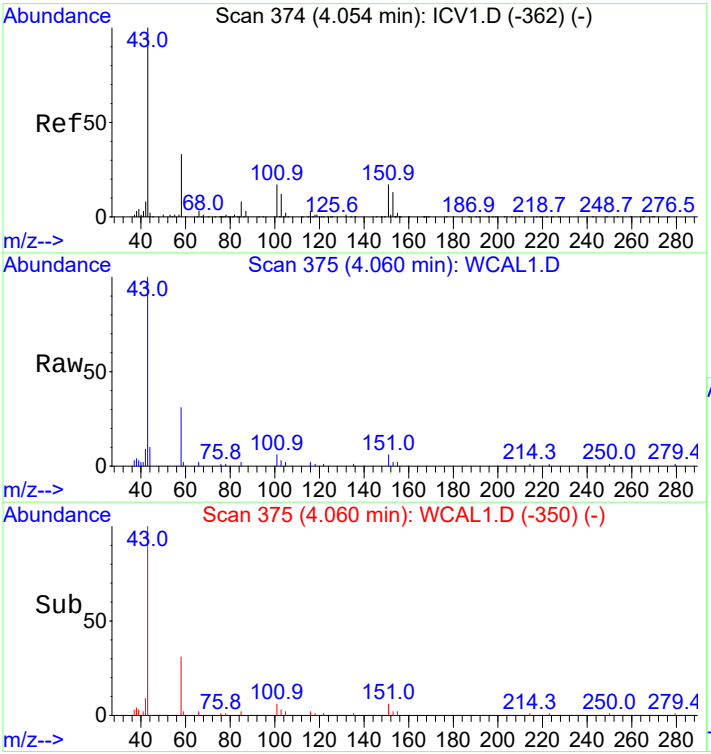
Ion	Ratio	Lower	Upper
85	100		
87	0.0	11.7	51.7#



Before Manual Integration

DGS 07/21/2023

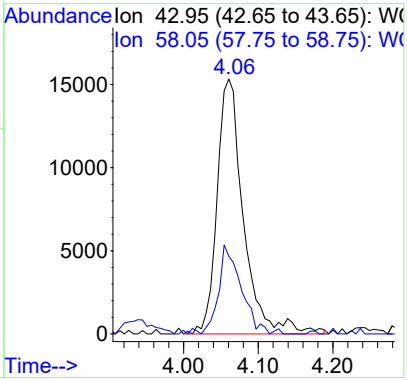
REASON # 2



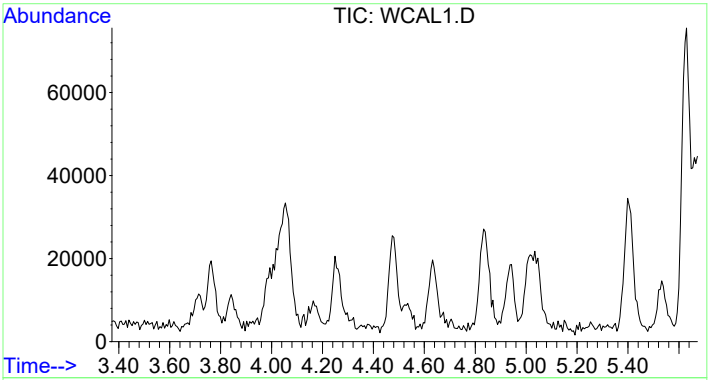
#15
Acetone
Concen: 5.70 ug/L
RT: 4.06 min Scan# 375
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 43 Resp: 37684

Ion	Ratio	Lower	Upper
43	100		
58	29.5	10.7	50.7



REASON # 2



#19
methylacetate
Concen: N.D.
Expected RT: 4.52 min

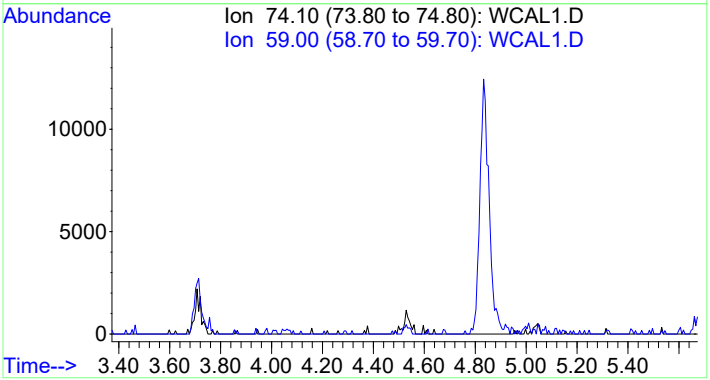
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 74

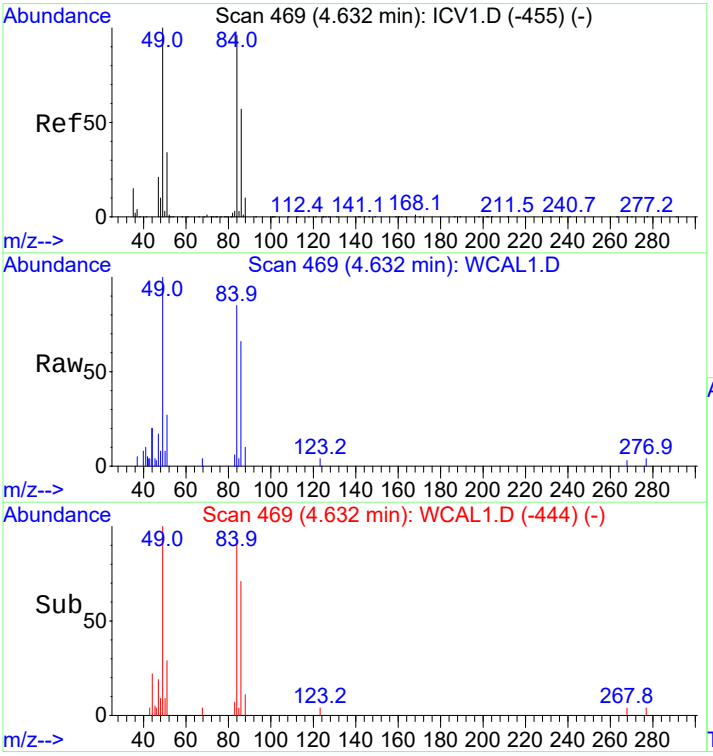
Sig	Exp Ratio
74	100
59	37.0

Before Manual Integration

DGS 07/21/2023



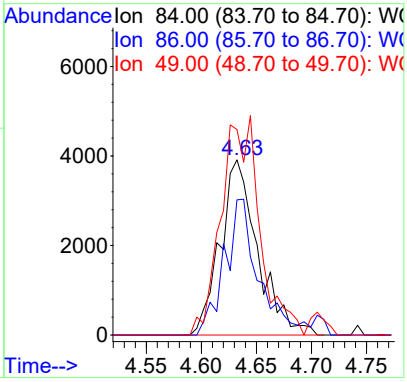
REASON # 1



#20
Methylchlorid
Concen: 0.75 ug/L
RT: 4.63 min Scan# 469
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 84 Resp: 9286

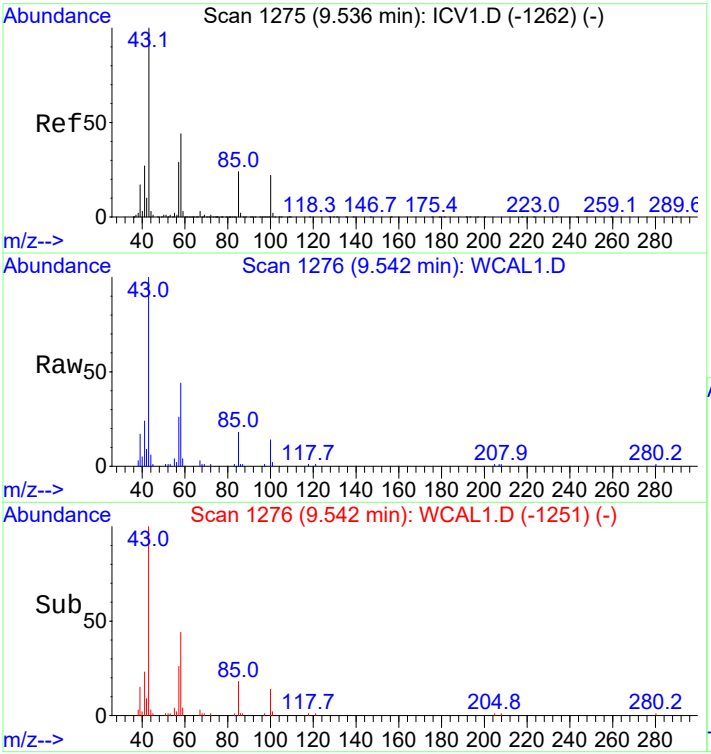
Ion	Ratio	Lower	Upper
84	100		
86	73.5	45.3	85.3
49	127.4	115.6	155.6



REASON # 2

Before Manual Integration

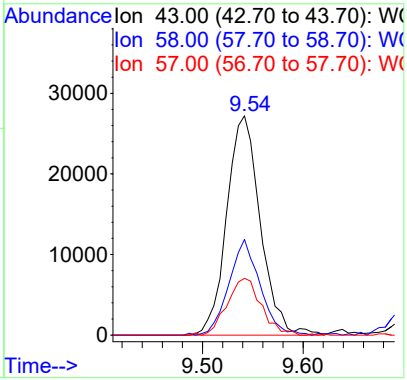
DGS 07/21/2023



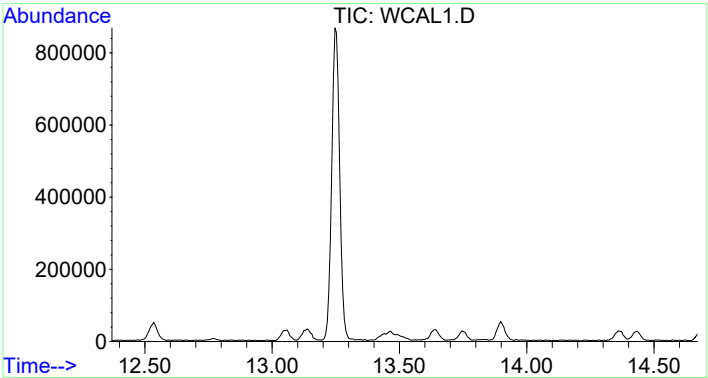
#60
4Meth2Pentan
Concen: 5.67 ug/L
RT: 9.54 min Scan# 1276
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 43 Resp: 63141

Ion	Ratio	Lower	Upper
43	100		
58	40.4	22.0	62.0
57	26.3	8.4	48.4



REASON # 2

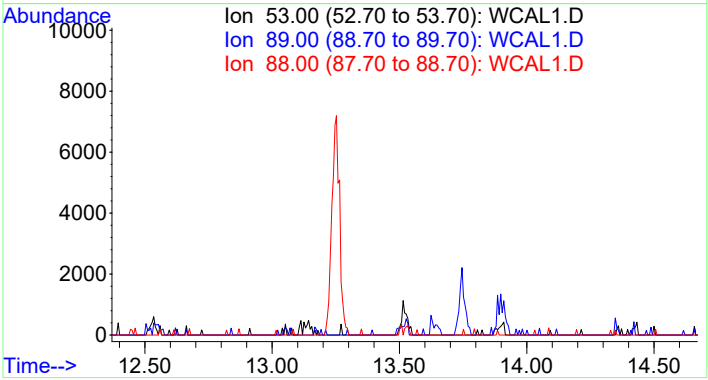


#87
14dichloro2butene
Concen: N.D.
Expected RT: 13.52 min

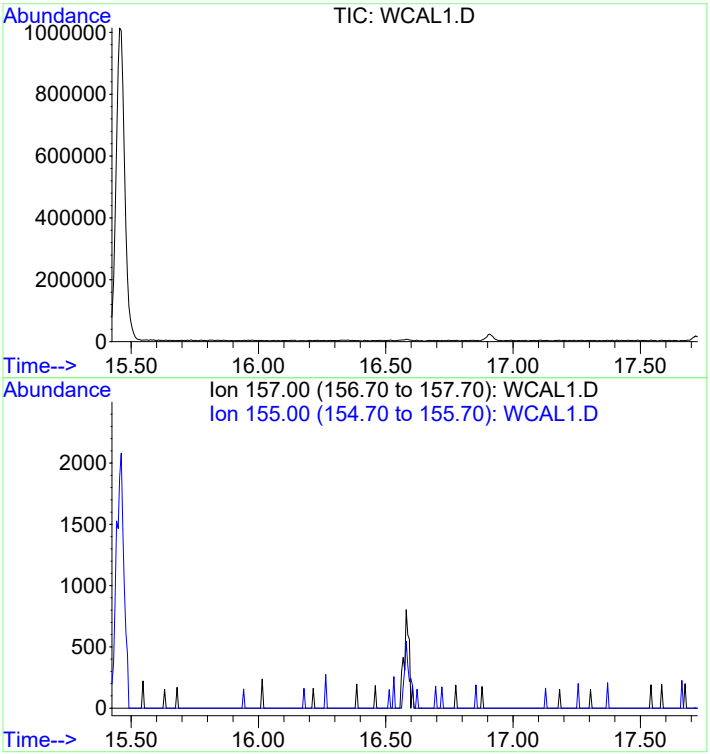
Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 53

Sig	Exp Ratio
53	100
89	49.4
88	40.8



REASON # 1



#100
12dibromo3cl
Concen: N.D.
Expected RT: 16.57 min

Lab File: WCAL1.D
Acq: 18 Jul 2023 11:00

Tgt Ion: 157

Sig	Exp Ratio
157	100
155	77.9

Before Manual Integration

DGS 07/21/2023

REASON # 1

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL2.D Vial: 5
Acq On : 18 Jul 2023 11:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:11:18 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1042034	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	772705	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	380064	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	260525	20.096	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	74037	20.540	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.71	98	1021236	19.593	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.25	95	387227	20.392	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	1.85	85	5290	1.2178	ug/L #	41
3) Chloromethan	2.10	50	10257	0.9543	ug/L	98
4) VinylChlorid	2.25	62	7710	0.6984	ug/L #	42
5) Bromomethane	2.71	94	6137m	0.8397	ug/L	76
6) Chloroethane	2.87	64	5990	0.8059	ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	11166	0.6549	ug/L #	92
9) Ethylether	3.71	59	10319	0.9298	ug/L	91
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.77	58	22530	9.5610	ug/L	93
12) Acrolein	3.85	56	13816	11.6493	ug/L	84
13) 11dichlorthe	3.99	96	7193	0.6784	ug/L #	74
14) Trichlorotfluoroeth	4.03	101	13719	1.2250	ug/L	94
15) Acetone	4.06	43	64656m	13.5318	ug/L	96
16) Iodomethane	4.17	142	15041	0.9716	ug/L #	89
17) Carbon Dislf	4.26	76	43643	1.5685	ug/L	99
18) allylchloride	4.48	41	31218	1.7691	ug/L	97
19) methylacetate	4.53	74	3539	1.3431	ug/L #	37
20) Methylchlorid	4.63	84	12450m	0.6834	ug/L #	87
21) tbutylalcohol	4.84	59	57718	90.3136	ug/L	87
22) Acrylonitrile	4.94	53	25985	6.0075	ug/L	99
23) t12dichlorte	5.01	96	10583	0.8764	ug/L	90
24) MtBE	5.04	73	30718	0.9274	ug/L	95
25) Hexane	5.40	57	21606	1.1916	ug/L	96
26) 11dichlorota	5.54	63	20303	0.9449	ug/L	98
27) Vinylacetate	5.63	43	237969	9.7934	ug/L	93
28) chloroprene	5.67	53	30015	1.5401	ug/L	98
29) Diisopether	5.69	45	33807	0.8799	ug/L	94
30) ETBE	6.13	59	33233	0.9094	ug/L	99
31) 22dichloropr	6.27	77	13210	0.7799	ug/L	96
32) c12dichlorte	6.26	96	12134	0.8970	ug/L	96
33) 2Butanone	6.29	72	19806	12.5996	ug/L	97
34) propionitrile	6.33	54	22384	13.3295	ug/L	93
35) Ethylacetate	6.39	88	2855	5.6038	ug/L #	92
36) methacrylonitrile	6.54	67	9827	1.9606	ug/L #	78
37) Bromochlorma	6.55	128	5538	0.8904	ug/L	94
38) Tetrahydofur	6.65	42	44262	12.8161	ug/L	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL2.D Vial: 5
Acq On : 18 Jul 2023 11:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:11:18 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.66	83	19139	0.9063 ug/L		98
40)	111trichlota	6.91	97	13746	0.7744 ug/L		96
42)	Cyclohexane	7.00	56	13373	0.6221 ug/L		91
43)	Carbtetraclo	7.12	119	8287	0.6028 ug/L		96
44)	11dicloprope	7.12	110	4389	0.7096 ug/L		96
46)	Benzene	7.36	78	43574	0.8783 ug/L		94
47)	12dichlorota	7.36	62	17232	1.0412 ug/L	#	92
48)	TAME	7.53	73	29062	0.8927 ug/L		96
49)	trichloroete	8.17	95	10799	0.8370 ug/L		98
50)	methylcyclohexane	8.43	83	13284	0.5475 ug/L		97
51)	12dicloropra	8.42	63	12404	0.9367 ug/L	#	88
52)	23Dicl1propene	8.49	75	16751	0.8383 ug/L		96
53)	Dibromometha	8.56	93	6311	0.8987 ug/L		96
54)	methylmethacrylate	8.59	69	7547	0.8477 ug/L	#	80
55)	14dioxane	8.60	88	8598	83.4306 ug/L	#	74
56)	Bromodiclrma	8.77	83	11836	0.8003 ug/L	#	91
57)	2Nitropropane	9.03	43	22169	17.5788 ug/L		94
58)	2CLEVE	9.16	63	17659	3.5040 ug/L		96
59)	c13dicloproe	9.34	75	15042	0.8044 ug/L		94
60)	4Meth2Pentan	9.55	43	120013	12.2837 ug/L		95
62)	Toluene	9.80	92	29422	0.9264 ug/L		100
63)	t13Dicloprop	10.05	75	12603	0.8133 ug/L		99
64)	ethylmethacrylate	10.20	69	27107	1.7981 ug/L		96
65)	112Triclotha	10.29	83	8870	0.9949 ug/L		95
66)	Tetrachlorte	10.53	166	11154	0.8201 ug/L		96
67)	13Diclorpropa	10.51	76	17929	0.9236 ug/L		95
69)	2Hexanone	10.63	43	91232	13.5585 ug/L		92
70)	Clorodibrmta	10.81	129	8570	0.9057 ug/L	#	87
71)	12Dibrometha	10.97	107	9697	0.9607 ug/L		98
72)	Chlorobenzen	11.65	112	31534	1.0179 ug/L		84
73)	1Clhexane	11.63	91	12840	0.7400 ug/L	#	46
74)	1112Tetclota	11.77	131	8561	0.8653 ug/L		99
75)	Ethylbenzene	11.82	91	49892	0.9199 ug/L		99
76)	m p-Xylene	11.98	106	35856	1.7156 ug/L	#	84
77)	o-Xylene	12.53	106	18575	0.8854 ug/L		98
78)	Styrene	12.53	104	30219	0.9255 ug/L		99
79)	Bromoform	12.76	173	4181	0.7450 ug/L	#	60
80)	Isopropylben	13.05	105	44434	0.8869 ug/L		100
81)	cyclohexanone	13.14	55	35961	30.7334 ug/L		94
84)	Bromobenzene	13.47	156	12045	0.9634 ug/L		91
85)	1122Tetrclta	13.44	83	13711	1.1504 ug/L		99
86)	123Triclproa	13.49	75	16417	1.1247 ug/L		97
87)	14dichloro2butene	13.53	53	3000	0.8664 ug/L	#	29
88)	n-Propylbenz	13.64	91	50766	0.9405 ug/L		97
89)	2chlorotolue	13.75	91	34705	1.0210 ug/L		98
90)	4chlorotolue	13.90	91	38417	0.9873 ug/L		93
91)	135Trimebenz	13.90	105	36947	0.9394 ug/L		97
92)	tbutylbenzen	14.36	119	28032	0.8337 ug/L		95
93)	124Trimetben	14.43	105	35026	0.9234 ug/L		98
94)	sbutylbenzen	14.68	105	38533	0.8376 ug/L		100
95)	13Diclorbenz	14.82	146	22353	1.0130 ug/L		95
96)	pIsopropylto	14.90	119	32516	0.8261 ug/L	#	96
97)	14dichlorobe	14.95	146	22846	1.0021 ug/L		80
98)	12dichlorobe	15.48	146	21986	1.0248 ug/L	#	83
99)	nButylbenzen	15.49	91	29407	0.8116 ug/L		98
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	16.91	180	14356	0.9030 ug/L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JUL1823\WCAL2.D Vial: 5
Acq On : 18 Jul 2023 11:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:11:18 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	10772	0.8606 ug/L	98
103) Hexachlorobu	17.97	225	4595	0.7305 ug/L	95
104) Naphthalene	18.03	128	17305	0.6949 ug/L #	74
105) 123Trichlben	18.33	180	9327	0.8592 ug/L	92

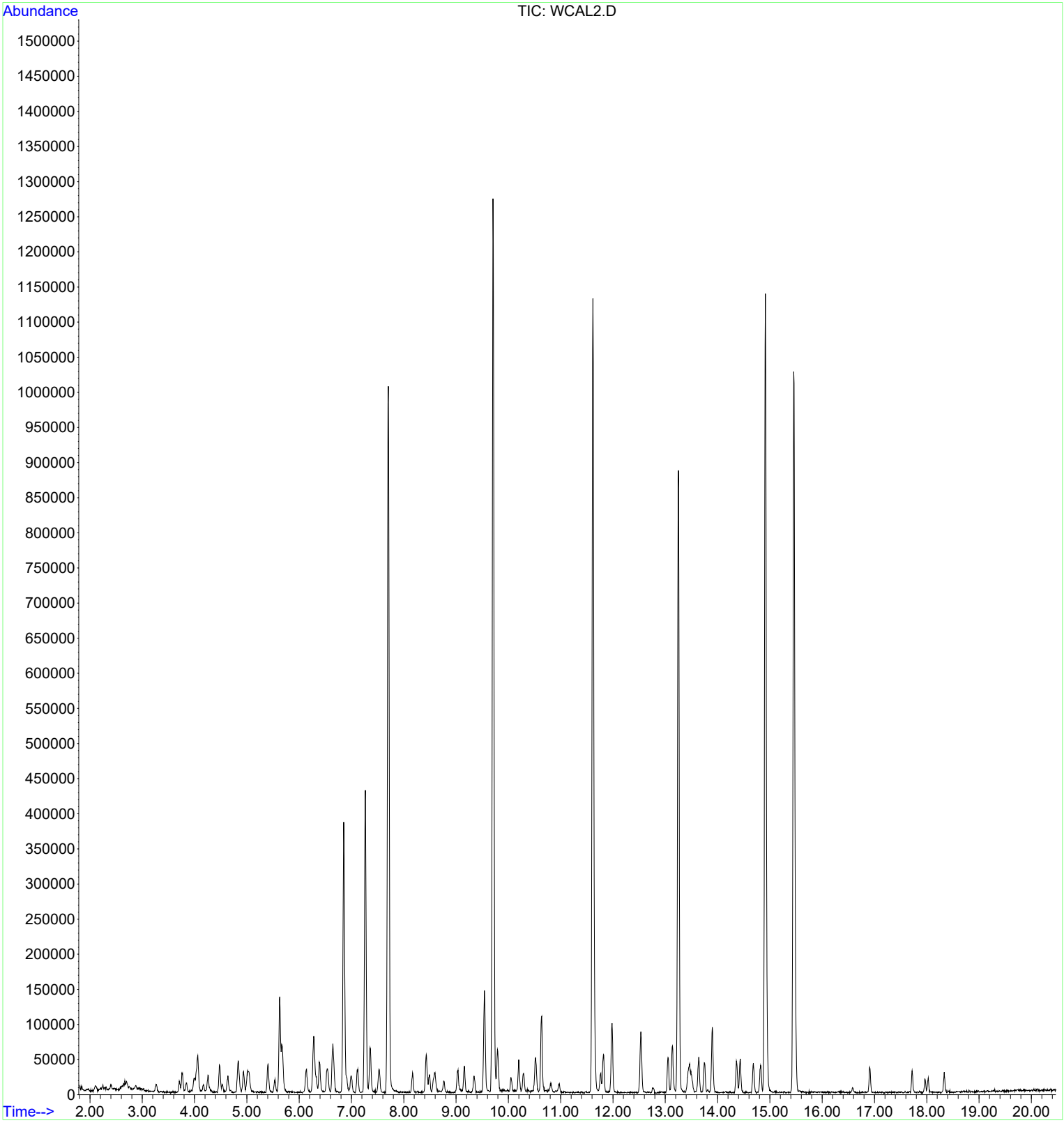
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL2.D Vial: 5
Acq On : 18 Jul 2023 11:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

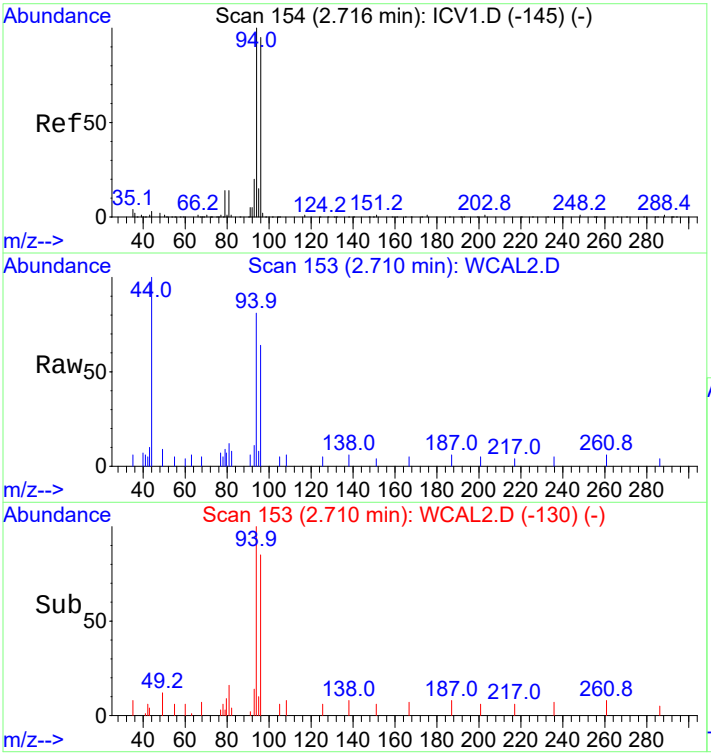
Quant Time: Jul 19 07:11:18 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



After Manual Integration

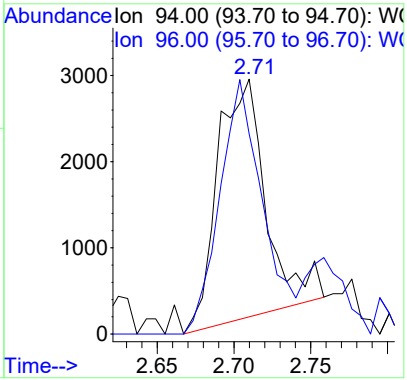
DGS 07/21/2023

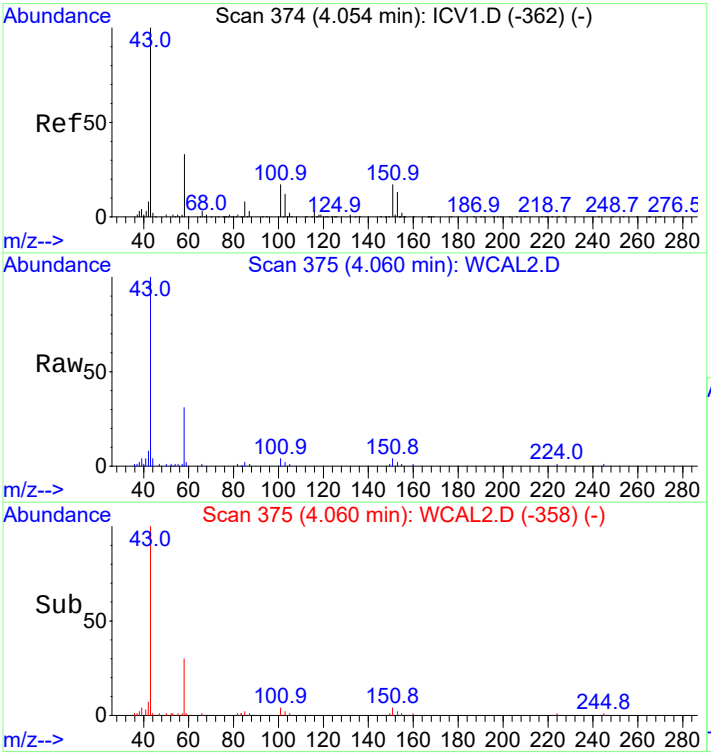


#5
Bromomethane
Concen: 0.84 ug/L m
RT: 2.71 min Scan# 153
Delta R.T. -0.01 min
Lab File: WCAL2.D
Acq: 18 Jul 2023 11:30

Tgt Ion: 94 Resp: 6137

Ion	Ratio	Lower	Upper
94	100		
96	93.7	75.2	115.2

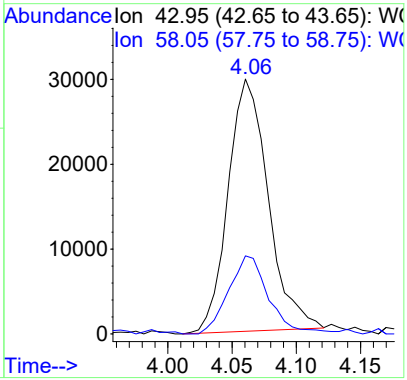




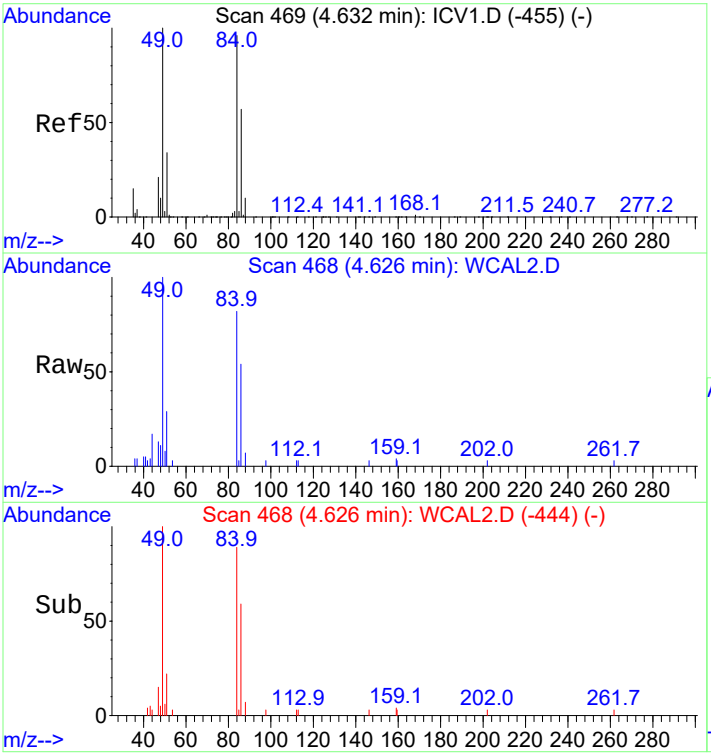
#15
Acetone
Concen: 13.53 ug/L m
RT: 4.06 min Scan# 375
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 18 Jul 2023 11:30

Tgt Ion: 43 Resp: 64656

Ion	Ratio	Lower	Upper
43	100		
58	30.8	12.2	52.2



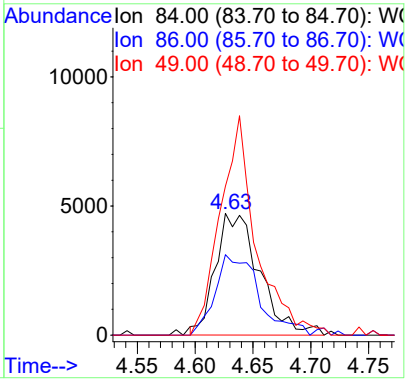
RD 07/21/2023



#20
Methylchlorid
Concen: 0.68 ug/L m
RT: 4.63 min Scan# 468
Delta R.T. -0.01 min
Lab File: WCAL2.D
Acq: 18 Jul 2023 11:30

Tgt Ion: 84 Resp: 12450

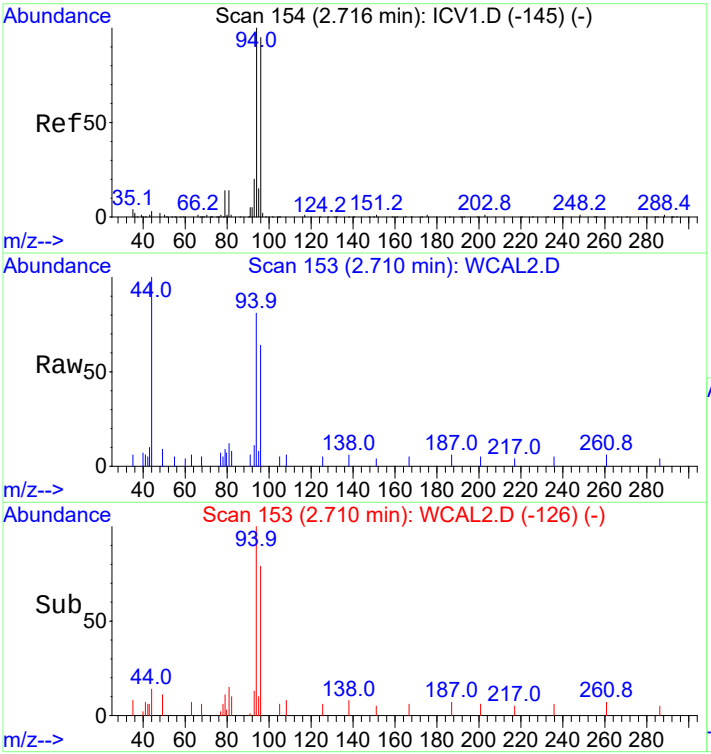
Ion	Ratio	Lower	Upper
84	100		
86	65.9	43.9	83.9
49	147.6	102.1	142.1#



After Manual Integration

DGS 07/21/2023

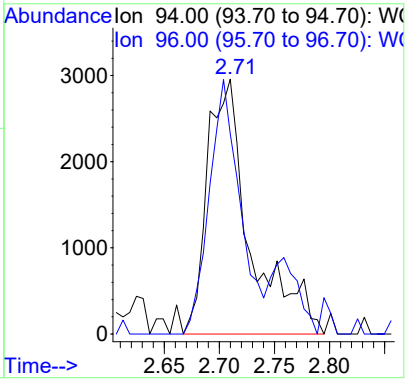
RD 07/21/2023



#5
Bromomethane
Concen: 1.03 ug/L
RT: 2.71 min Scan# 153
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 18 Jul 2023 11:30

Tgt Ion: 94 Resp: 8011

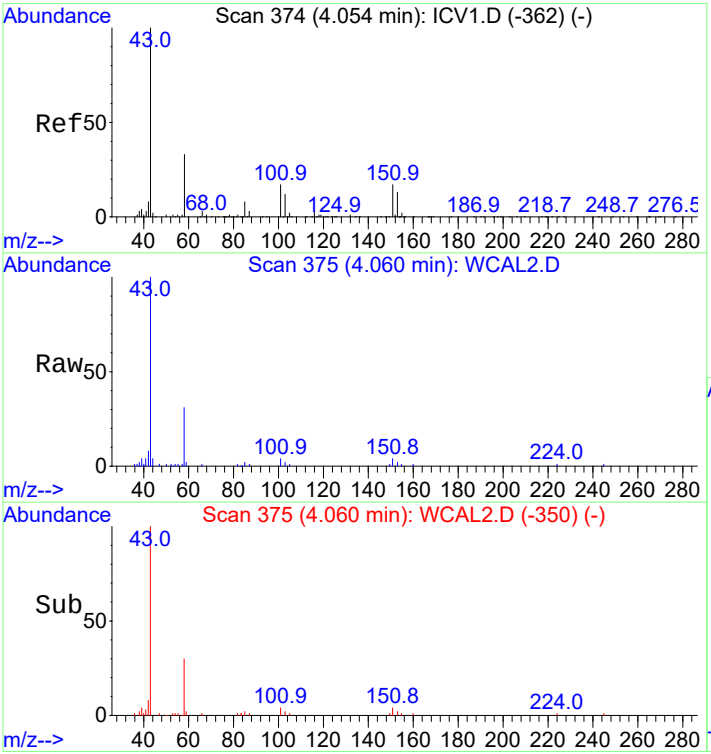
Ion	Ratio	Lower	Upper
94	100		
96	71.8	76.3	116.3#



Before Manual Integration

DGS 07/21/2023

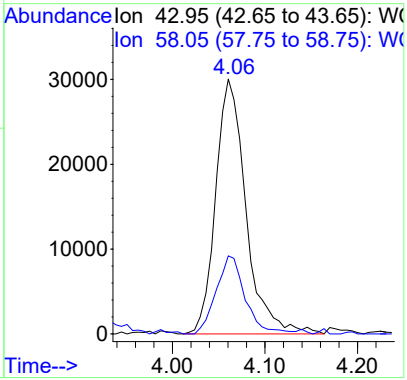
REASON # 2



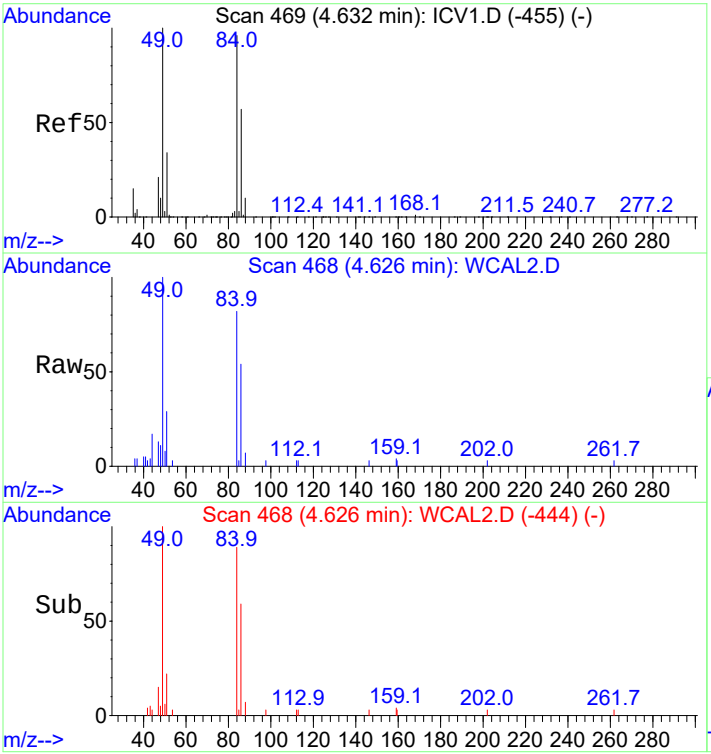
#15
Acetone
Concen: 11.32 ug/L
RT: 4.06 min Scan# 375
Delta R.T. 0.00 min
Lab File: WCAL2.D
Acq: 18 Jul 2023 11:30

Tgt Ion: 43 Resp: 68412

Ion	Ratio	Lower	Upper
43	100		
58	29.7	10.7	50.7



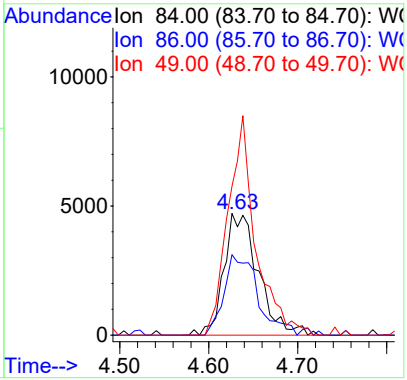
REASON # 2



#20
Methylchlorid
Concen: 1.06 ug/L
RT: 4.63 min Scan# 468
Delta R.T. -0.01 min
Lab File: WCAL2.D
Acq: 18 Jul 2023 11:30

Tgt Ion: 84 Resp: 12720

Ion	Ratio	Lower	Upper
84	100		
86	64.5	45.3	85.3
49	144.4	115.6	155.6



Before Manual Integration

DGS 07/21/2023

REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL3.D Vial: 6
Acq On : 18 Jul 2023 11:59 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:12:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1045794	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	777585	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	383476	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	266028	20.447	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.27	102	71928	19.883	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1025313	19.601	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.25	95	395114	20.622	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103	%		
Target Compounds						Qvalue
2) Dichlorodi	1.85	85	12459	2.0039	ug/L	91
3) Chloromethan	2.10	50	21521	1.9952	ug/L	97
4) VinylChlorid	2.24	62	19218	1.7345	ug/L	98
5) Bromomethane	2.71	94	15490m	2.1118	ug/L	92
6) Chloroethane	2.87	64	11829	1.5857	ug/L	96
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.27	101	31176	1.8220	ug/L	97
9) Ethylether	3.71	59	21978	1.9732	ug/L	96
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	48792	20.6313	ug/L	91
12) Acrolein	3.84	56	27344	18.2970	ug/L	91
13) 11dichlorthe	3.99	96	17951	1.6870	ug/L	93
14) Trichlorotfluoroeth	4.03	101	38759	3.4483	ug/L	97
15) Acetone	4.06	43	123740	26.2537	ug/L	100
16) Iodomethane	4.16	142	32134	2.0683	ug/L	95
17) Carbon Dislf	4.26	76	100184	3.5876	ug/L	97
18) allylchloride	4.48	41	66014	3.7275	ug/L	95
19) methylacetate	4.54	74	6779	2.5635	ug/L	100
20) Methylchlorid	4.63	84	24619	1.6736	ug/L	87
21) tbutylalcohol	4.83	59	125063	154.9088	ug/L	90
22) Acrylonitrile	4.94	53	56816	13.0880	ug/L	98
23) t12dichlorte	5.01	96	22023	1.8173	ug/L	97
24) MtBE	5.04	73	67348	2.0259	ug/L	98
25) Hexane	5.40	57	60840	3.3433	ug/L	98
26) 11dichlorota	5.54	63	41775	1.9372	ug/L	99
27) Vinylacetate	5.63	43	521691	22.6463	ug/L	93
28) chloroprene	5.67	53	77121	3.9430	ug/L	90
29) Diisopether	5.68	45	79218	2.0545	ug/L	96
30) ETBE	6.13	59	70596	1.9249	ug/L	97
31) 22dichloropr	6.27	77	28820	1.6953	ug/L	95
32) c12dichlorte	6.26	96	23562	1.7356	ug/L	92
33) 2Butanone	6.29	72	38355	24.3118	ug/L	92
34) propionitrile	6.32	54	46173	27.3967	ug/L	99
35) Ethylacetate	6.39	88	6017	11.7678	ug/L	98
36) methacrylonitrile	6.53	67	22315	4.4361	ug/L	98
37) Bromochlorma	6.55	128	11545	1.8496	ug/L	96
38) Tetrahydofur	6.64	42	92980	26.8257	ug/L	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL3.D Vial: 6
Acq On : 18 Jul 2023 11:59 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:12:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	40158	1.8947	ug/L		99
40)	111trichlota	6.91	97	31494	1.7679	ug/L		97
42)	Cyclohexane	6.99	56	36703	1.7012	ug/L		95
43)	Carbtetraclo	7.13	119	22646	1.6414	ug/L		99
44)	11dicloprope	7.11	110	9929	1.5996	ug/L		94
46)	Benzene	7.36	78	94169	1.8914	ug/L		97
47)	12dichlorota	7.36	62	34117	2.0541	ug/L		95
48)	TAME	7.53	73	62248	1.9052	ug/L		96
49)	trichloroete	8.17	95	23484	1.8136	ug/L		98
50)	methylcyclohexane	8.43	83	38713	1.5899	ug/L		97
51)	12dicloropra	8.43	63	27162	2.0437	ug/L	#	94
52)	23Dicl1propene	8.49	75	36338	1.8121	ug/L		97
53)	Dibromometha	8.56	93	14666	2.0810	ug/L		96
54)	methylmethacrylate	8.59	69	17060	1.9094	ug/L		97
55)	14dioxane	8.61	88	16705	161.5140	ug/L		92
56)	Bromodiclrma	8.76	83	26975	1.8174	ug/L		99
57)	2Nitropropane	9.03	43	47295	24.6739	ug/L		93
58)	2CLEVE	9.16	63	45550	9.0058	ug/L		99
59)	c13dicloproe	9.34	75	31933	1.7016	ug/L		99
60)	4Meth2Pentan	9.54	43	257648	26.2762	ug/L		97
62)	Toluene	9.80	92	61717	1.9362	ug/L		98
63)	t13Dicloprop	10.05	75	25939	1.6679	ug/L		97
64)	ethylmethacrylate	10.20	69	58843	3.8893	ug/L		97
65)	112Triclotha	10.30	83	17092	1.9102	ug/L		89
66)	Tetrachlorte	10.53	166	25131	1.8412	ug/L		96
67)	13Diclorpropa	10.51	76	39337	2.0191	ug/L		100
69)	2Hexanone	10.63	43	194351	28.7023	ug/L		94
70)	Clorodibrmta	10.81	129	18086	1.8993	ug/L		99
71)	12Dibrometha	10.97	107	21588	2.1254	ug/L		99
72)	Chlorobenzen	11.65	112	65343	2.0960	ug/L		94
73)	1Clhexane	11.63	91	29603	1.6953	ug/L		82
74)	1112Tetclota	11.76	131	18128	1.8208	ug/L		98
75)	Ethylbenzene	11.82	91	107858	1.9762	ug/L		95
76)	m p-Xylene	11.98	106	82282	3.9121	ug/L		93
77)	o-Xylene	12.53	106	41013	1.9427	ug/L		100
78)	Styrene	12.54	104	62100	1.8901	ug/L		99
79)	Bromoform	12.77	173	10178	1.8022	ug/L		88
80)	Isopropylben	13.05	105	96571	1.9154	ug/L		98
81)	cyclohexanone	13.14	55	76669	65.1126	ug/L		93
84)	Bromobenzene	13.46	156	26573	2.1064	ug/L		99
85)	1122Tetrclta	13.43	83	28608	2.3790	ug/L		98
86)	123Triclproa	13.50	75	34149	2.3187	ug/L		97
87)	14dichloro2butene	13.53	53	5731	1.6404	ug/L	#	29
88)	n-Propylbenz	13.64	91	110541	2.0297	ug/L		98
89)	2chlorotolue	13.75	91	72650	2.1183	ug/L		100
90)	4chlorotolue	13.90	91	79911	2.0353	ug/L		99
91)	135Trimebenz	13.90	105	77476	1.9524	ug/L		99
92)	tbutylbenzen	14.37	119	65061	1.9178	ug/L		98
93)	124Trimetben	14.43	105	78958	2.0631	ug/L		97
94)	sbutylbenzen	14.68	105	89879	1.9363	ug/L		98
95)	13Diclorbenz	14.82	146	47401	2.1291	ug/L		97
96)	pIsopropylto	14.90	119	80054	2.0158	ug/L	#	98
97)	14dichlorobe	14.96	146	49332	2.1446	ug/L		94
98)	12dichlorobe	15.49	146	45816	2.1166	ug/L		94
99)	nButylbenzen	15.49	91	67028	1.8334	ug/L		99
100)	12dibromo3cl	16.58	157	4288	2.1534	ug/L		95
101)	135Trichlorobenzene	16.91	180	30512	1.9022	ug/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\JUL1823\WCAL3.D Vial: 6
Acq On : 18 Jul 2023 11:59 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:12:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	24422	1.9337	ug/L	96
103) Hexachlorobu	17.97	225	8960	1.4117	ug/L	91
104) Naphthalene	18.02	128	42723	1.7004	ug/L	99
105) 123Trichlben	18.34	180	21293	1.9440	ug/L	97

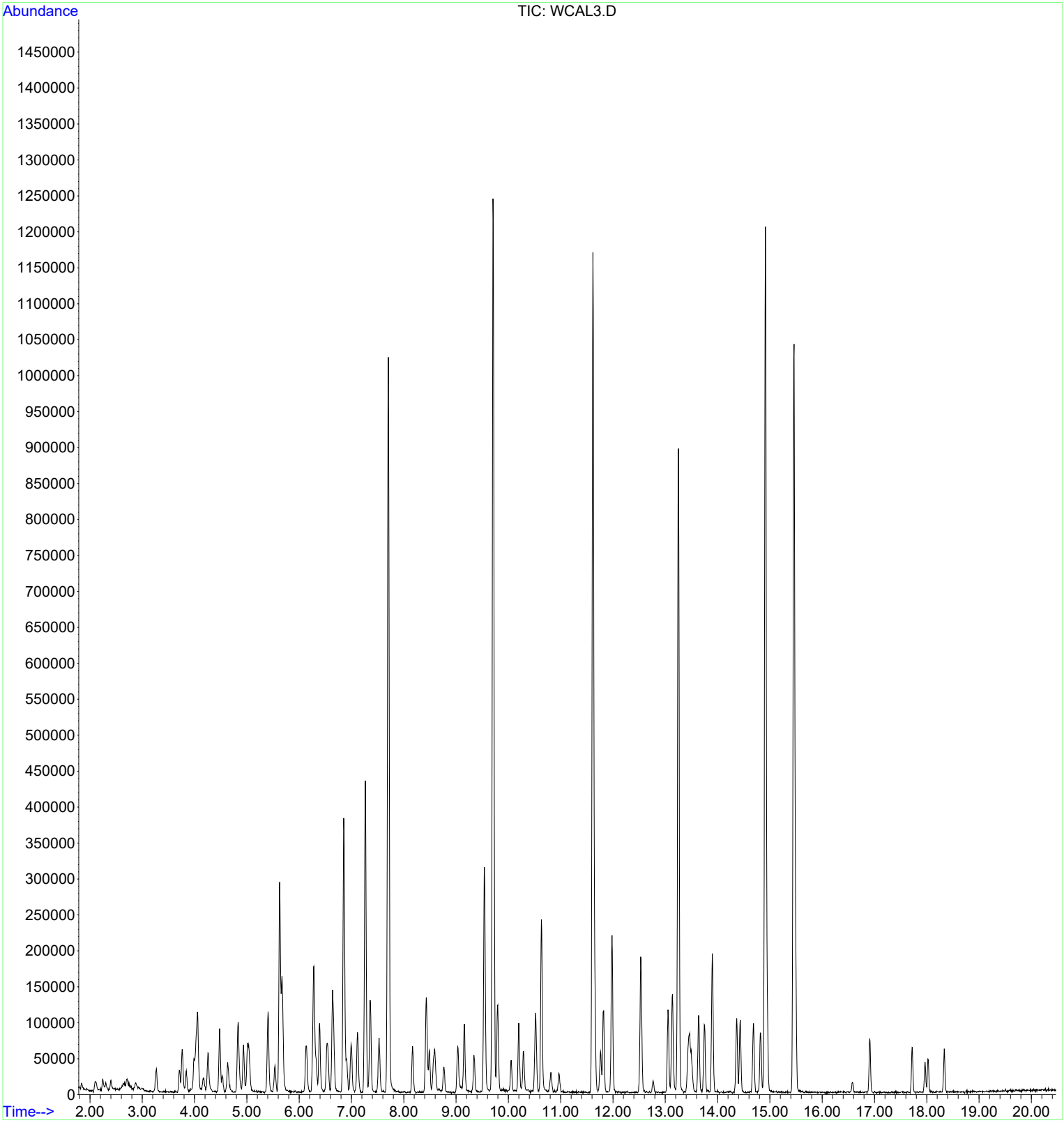
(#) = qualifier out of range (m) = manual integration

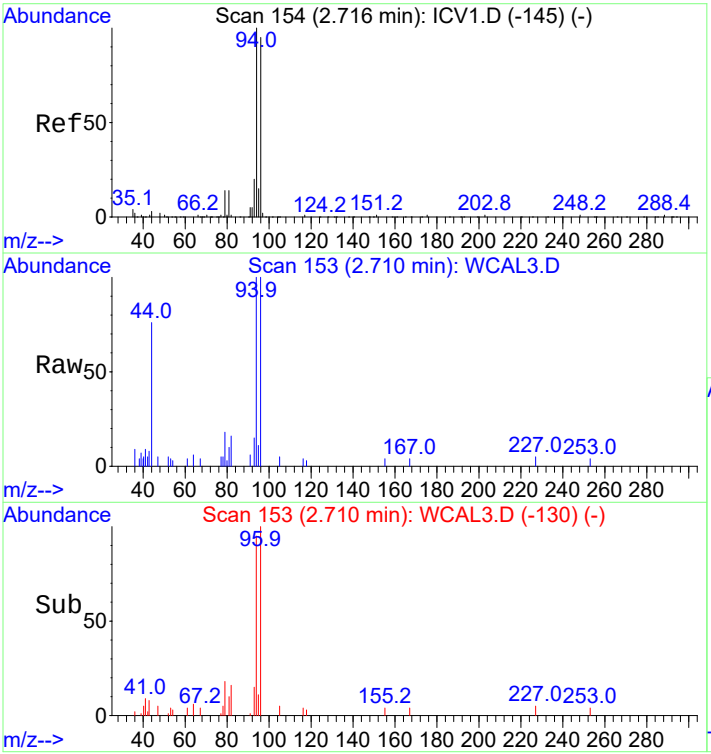
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL3.D Vial: 6
Acq On : 18 Jul 2023 11:59 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:12:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

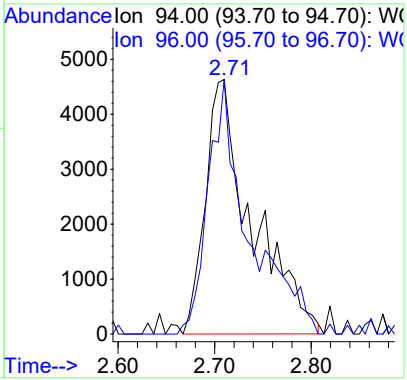




#5
Bromomethane
Concen: 2.11 ug/L m
RT: 2.71 min Scan# 153
Delta R.T. -0.01 min
Lab File: WCAL3.D
Acq: 18 Jul 2023 11:59

Tgt Ion: 94 Resp: 15490

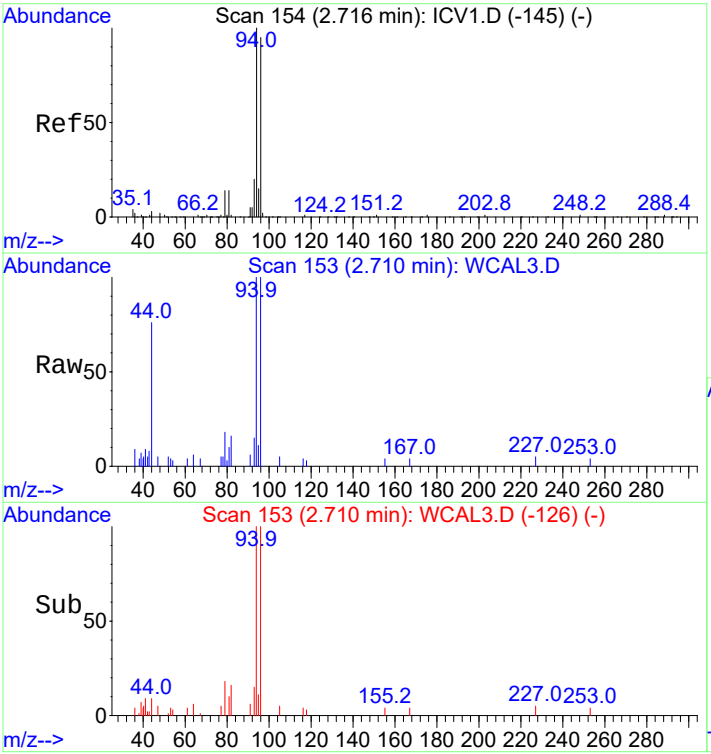
Ion	Ratio	Lower	Upper
94	100		
96	87.2	75.2	115.2



After Manual Integration

DGS 07/21/2023

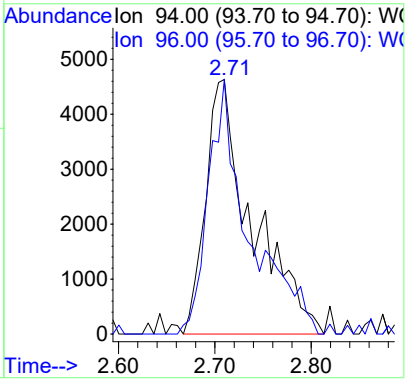
RD 07/21/2023



#5
Bromomethane
Concen: 2.24 ug/L
RT: 2.71 min Scan# 153
Delta R.T. 0.01 min
Lab File: WCAL3.D
Acq: 18 Jul 2023 11:59

Tgt Ion: 94 Resp: 15507

Ion	Ratio	Lower	Upper
94	100		
96	87.1	76.3	116.3



Before Manual Integration

DGS 07/21/2023

REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL4.D Vial: 7
Acq On : 18 Jul 2023 12:28 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:13:11 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1041239	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	782205	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	383706	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	258567	19.960	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.27	102	74231	20.610	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.71	98	1017714	19.540	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.25	95	392188	20.457	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	1.85	85	39582	5.0141	ug/L	97
3) Chloromethan	2.10	50	52228	4.8631	ug/L	99
4) VinylChlorid	2.24	62	53366	4.8375	ug/L	98
5) Bromomethane	2.70	94	33793m	4.6274	ug/L	94
6) Chloroethane	2.87	64	30981	4.1712	ug/L	99
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.27	101	92808	5.4476	ug/L	100
9) Ethylether	3.71	59	52572	4.7406	ug/L	95
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	113119	48.0407	ug/L	94
12) Acrolein	3.84	56	59777	34.4129	ug/L	96
13) 11dichlorthe	3.99	96	52449	4.9506	ug/L	95
14) Trichlorotfluoroeth	4.03	101	116326	10.3946	ug/L	96
15) Acetone	4.06	43	259427	56.7367	ug/L	96
16) Iodomethane	4.17	142	99433	6.4280	ug/L	98
17) Carbon Dislf	4.25	76	276775	9.9548	ug/L	99
18) allylchloride	4.48	41	171074	9.7019	ug/L	96
19) methylacetate	4.53	74	15661	5.9482	ug/L	96
20) Methylchlorid	4.64	84	56426	4.3024	ug/L	91
21) tbutylalcohol	4.83	59	287665	314.0726	ug/L	95
22) Acrylonitrile	4.94	53	127586	29.5190	ug/L	98
23) t12dichlorte	5.01	96	56194	4.6572	ug/L	96
24) MtBE	5.03	73	156155	4.7178	ug/L	98
25) Hexane	5.40	57	193828	10.6979	ug/L	99
26) 11dichlorota	5.54	63	101947	4.7482	ug/L	99
27) Vinylacetate	5.62	43	1241857	57.1851	ug/L	94
28) chloroprene	5.67	53	212409	10.9074	ug/L	92
29) Diisopether	5.68	45	194930	5.0775	ug/L	97
30) ETBE	6.14	59	177489	4.8608	ug/L	97
31) 22dichloropr	6.27	77	78989	4.6668	ug/L	99
32) c12dichlorte	6.26	96	65319	4.8325	ug/L	97
33) 2Butanone	6.29	72	86686	55.1874	ug/L	95
34) propionitrile	6.32	54	103838	61.8818	ug/L	98
35) Ethylacetate	6.39	88	12642	24.8329	ug/L #	89
36) methacrylonitrile	6.54	67	52890	10.5603	ug/L	93
37) Bromochlorma	6.55	128	29078	4.6790	ug/L	98
38) Tetrahydofur	6.63	42	208207	60.3327	ug/L	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL4.D Vial: 7
Acq On : 18 Jul 2023 12:28 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:13:11 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	100947	4.7837 ug/L	98
40)	111trichlota	6.91	97	85607	4.8266 ug/L	99
42)	Cyclohexane	6.99	56	112130	5.2201 ug/L	97
43)	Carbtetraclo	7.12	119	66145	4.8153 ug/L	100
44)	11dicloprope	7.11	110	29827	4.8263 ug/L	99
46)	Benzene	7.36	78	242474	4.8914 ug/L	98
47)	12dichlorota	7.36	62	83595	5.0550 ug/L	96
48)	TAME	7.53	73	152759	4.6958 ug/L	96
49)	trichloroete	8.17	95	62863	4.8761 ug/L	97
50)	methylcyclohexane	8.43	83	120838	4.9844 ug/L	97
51)	12dicloropra	8.43	63	63985	4.8354 ug/L	98
52)	23Dicl1propene	8.49	75	94738	4.7450 ug/L	97
53)	Dibromometha	8.56	93	34169	4.8696 ug/L	98
54)	methylmethacrylate	8.59	69	41018	4.6110 ug/L	98
55)	14dioxane	8.60	88	41018	398.3215 ug/L	98
56)	Bromodiclrma	8.77	83	67411	4.5615 ug/L	97
57)	2Nitropropane	9.03	43	118469	45.0487 ug/L	95
58)	2CLEVE	9.16	63	99008	19.6607 ug/L	98
59)	c13dicloproe	9.35	75	86975	4.6550 ug/L	98
60)	4Meth2Pentan	9.54	43	584593	59.8804 ug/L	97
62)	Toluene	9.79	92	151442	4.7718 ug/L	97
63)	t13Dicloprop	10.05	75	68561	4.4279 ug/L	99
64)	ethylmethacrylate	10.20	69	143525	9.5280 ug/L	98
65)	112Triclotha	10.28	83	45128	5.0656 ug/L	97
66)	Tetrachlorte	10.53	166	67221	4.9463 ug/L	96
67)	13Diclorpropa	10.51	76	95290	4.9125 ug/L	99
69)	2Hexanone	10.63	43	430223	63.1612 ug/L	96
70)	Clorodibrmta	10.81	129	48045	5.0157 ug/L	98
71)	12Dibrometha	10.97	107	52205	5.1093 ug/L	99
72)	Chlorobenzen	11.66	112	159201	5.0765 ug/L	100
73)	1Clhexane	11.63	91	81048	4.6141 ug/L	90
74)	1112Tetclota	11.76	131	45866	4.5798 ug/L	97
75)	Ethylbenzene	11.82	91	287570	5.2378 ug/L	98
76)	m p-Xylene	11.98	106	212577	10.0473 ug/L	90
77)	o-Xylene	12.53	106	100406	4.7280 ug/L	98
78)	Styrene	12.54	104	162249	4.9090 ug/L	99
79)	Bromoform	12.77	173	26023	4.5807 ug/L	94
80)	Isopropylben	13.05	105	264862	5.2223 ug/L	99
81)	cyclohexanone	13.14	55	170211	143.7011 ug/L	95
84)	Bromobenzene	13.46	156	63704	5.0467 ug/L	95
85)	1122Tetrclta	13.44	83	70228	5.8366 ug/L	96
86)	123Triclproa	13.50	75	84661	5.7451 ug/L	100
87)	14dichloro2butene	13.52	53	16353	4.6781 ug/L	91
88)	n-Propylbenz	13.64	91	307294	5.6390 ug/L	98
89)	2chlorotolue	13.75	91	186399	5.4317 ug/L	99
90)	4chlorotolue	13.90	91	209621	5.3358 ug/L	98
91)	135Trimebenz	13.90	105	210632	5.3048 ug/L	97
92)	tbutylbenzen	14.37	119	181339	5.3421 ug/L	98
93)	124Trimetben	14.43	105	204656	5.3442 ug/L	99
94)	sbutylbenzen	14.69	105	253533	5.4587 ug/L	100
95)	13Diclorbenz	14.82	146	117053	5.2544 ug/L	99
96)	pIsopropylto	14.90	119	215606	5.4258 ug/L	98
97)	14dichlorobe	14.95	146	119948	5.2114 ug/L	96
98)	12dichlorobe	15.49	146	111389	5.1429 ug/L	97
99)	nButylbenzen	15.50	91	188084	5.1416 ug/L	99
100)	12dibromo3cl	16.58	157	10662	5.3513 ug/L	99
101)	135Trichlorobenzene	16.91	180	78820	4.9109 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL4.D Vial: 7
Acq On : 18 Jul 2023 12:28 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:13:11 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	60789	4.8102	ug/L	99
103) Hexachlorobu	17.97	225	27839	4.3836	ug/L	95
104) Naphthalene	18.03	128	113443	4.5124	ug/L	100
105) 123Trichlben	18.34	180	53815	4.9103	ug/L	99

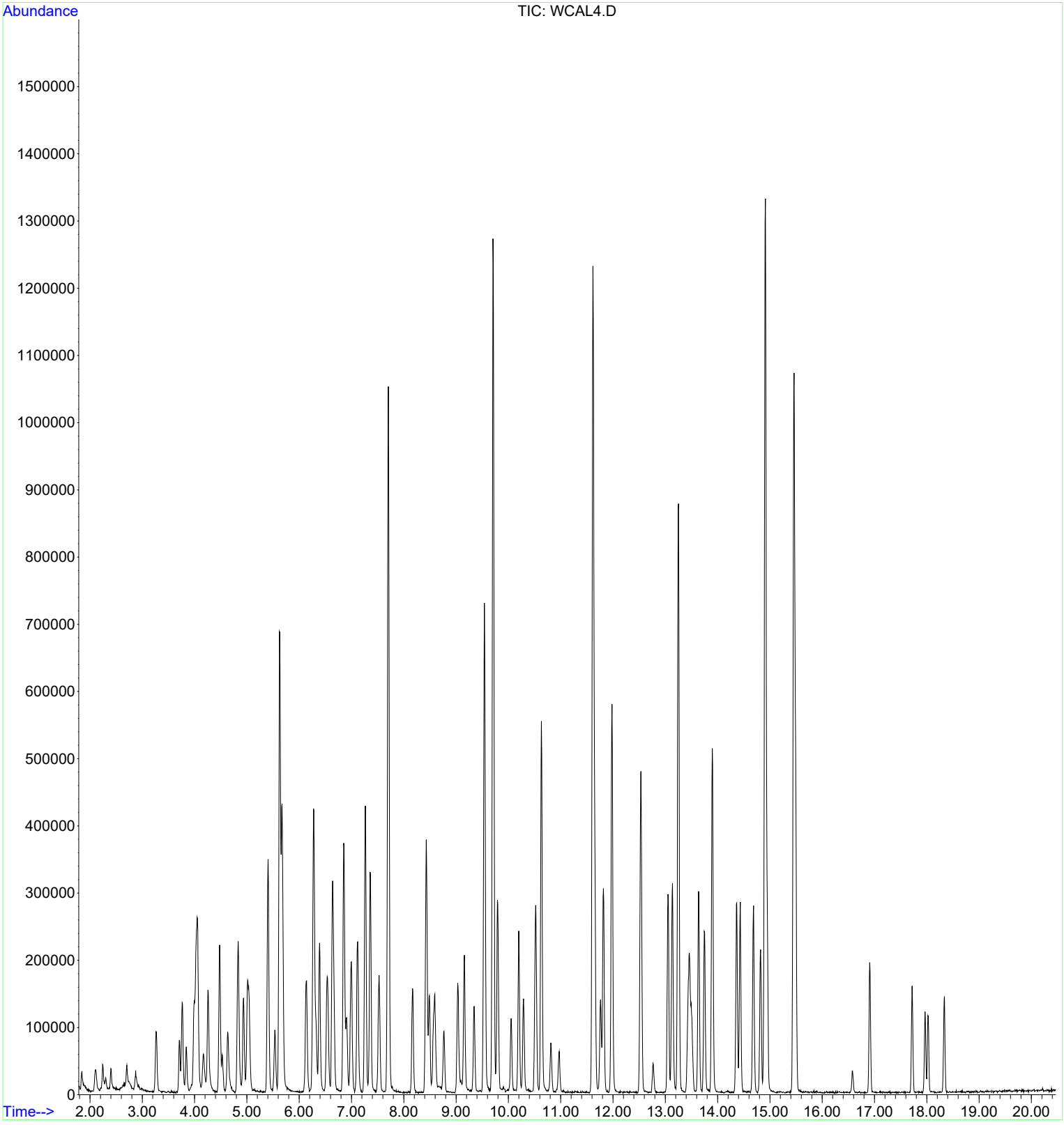
(#) = qualifier out of range (m) = manual integration

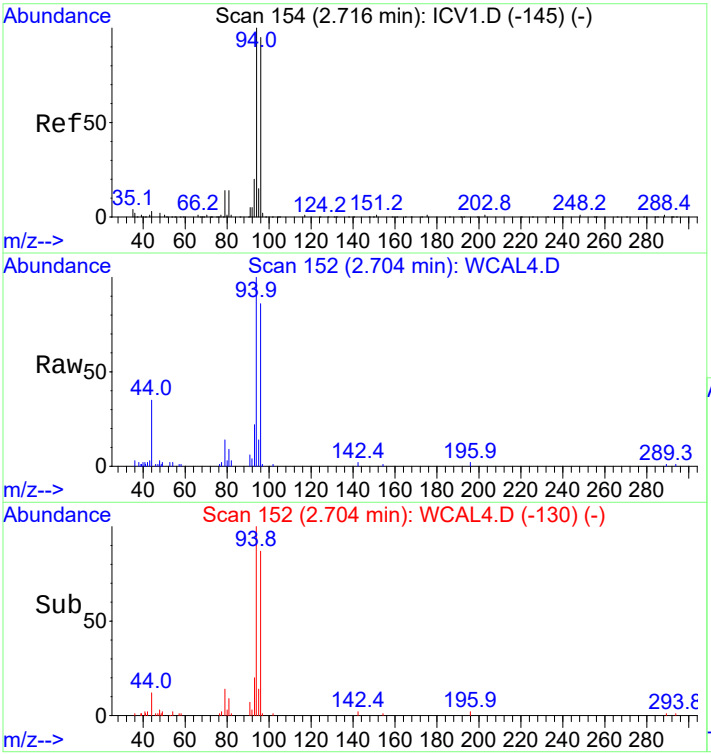
Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL4.D Vial: 7
Acq On : 18 Jul 2023 12:28 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:13:11 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

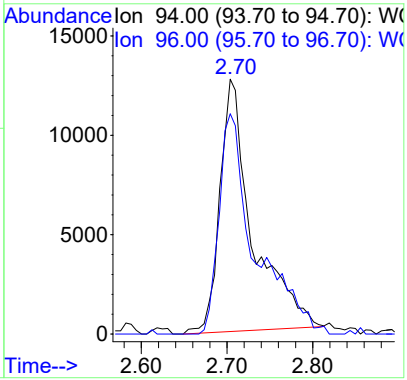




#5
Bromomethane
Concen: 4.63 ug/L m
RT: 2.70 min Scan# 152
Delta R.T. -0.02 min
Lab File: WCAL4.D
Acq: 18 Jul 2023 12:28

Tgt Ion: 94 Resp: 33793

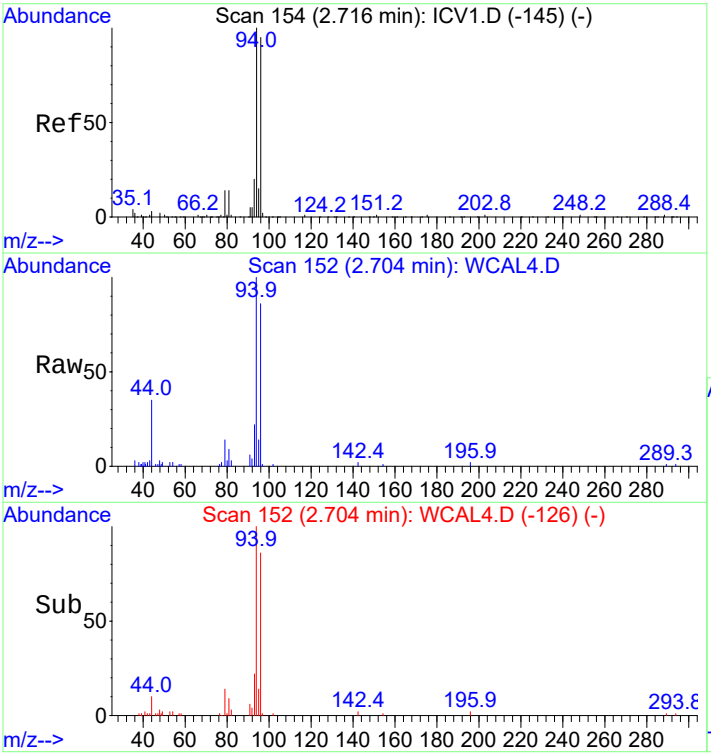
Ion	Ratio	Lower	Upper
94	100		
96	95.9	75.2	115.2



After Manual Integration

DGS 07/21/2023

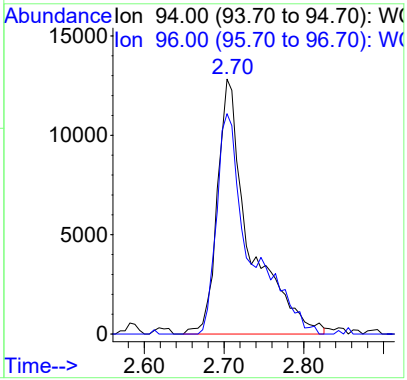
RD 07/21/2023



#5
Bromomethane
Concen: 5.64 ug/L
RT: 2.70 min Scan# 152
Delta R.T. 0.01 min
Lab File: WCAL4.D
Acq: 18 Jul 2023 12:28

Tgt Ion: 94 Resp: 35970

Ion	Ratio	Lower	Upper
94	100		
96	90.1	76.3	116.3



Before Manual Integration

DGS 07/21/2023

REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL5.D Vial: 8
Acq On : 18 Jul 2023 12:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:18:43 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1046073	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	778280	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	387548	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	265858	20.428	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.27	102	73365	20.275	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1026686	19.622	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.25	95	398610	20.586	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	82080	9.7078	ug/L	97
3) Chloromethan	2.10	50	98105	9.0927	ug/L	98
4) VinylChlorid	2.24	62	103641	9.3513	ug/L	99
5) Bromomethane	2.70	94	62149	8.4709	ug/L	99
6) Chloroethane	2.87	64	64695	8.6702	ug/L	99
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	171405	10.0145	ug/L	99
9) Ethylether	3.71	59	96826	8.6908	ug/L	95
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	210509	88.9884	ug/L	98
12) Acrolein	3.84	56	118674	63.2659	ug/L	94
13) 11dichlorthe	3.99	96	100222	9.4161	ug/L	93
14) Trichlorotfluoroeth	4.03	101	225809	20.0846	ug/L	97
15) Acetone	4.06	43	592759	137.0158	ug/L	97
16) Iodomethane	4.17	142	230517	14.8332	ug/L	98
17) Carbon Dislf	4.26	76	533185	19.0885	ug/L	99
18) allylchloride	4.48	41	331446	18.7100	ug/L	96
19) methylacetate	4.52	74	32587	12.3197	ug/L	98
20) Methylchlorid	4.63	84	106310	8.4026	ug/L	91
21) tbutylalcohol	4.83	59	569871	592.0079	ug/L	96
22) Acrylonitrile	4.94	53	246015	56.6564	ug/L	98
23) t12dichlorte	5.01	96	109604	9.0417	ug/L	98
24) MtBE	5.04	73	311690	9.3733	ug/L	98
25) Hexane	5.40	57	365073	20.0563	ug/L	99
26) 11dichlorota	5.53	63	199915	9.2681	ug/L	98
27) Vinylacetate	5.62	43	2229222	108.2917	ug/L	97
28) chloroprene	5.67	53	397832	20.3346	ug/L	96
29) Diisopether	5.68	45	370815	9.6142	ug/L	92
30) ETBE	6.13	59	334426	9.1164	ug/L	100
31) 22dichloropr	6.27	77	153980	9.0553	ug/L	99
32) c12dichlorte	6.26	96	119987	8.8360	ug/L	97
33) 2Butanone	6.28	72	184725	117.0590	ug/L	96
34) propionitrile	6.32	54	202850	120.3289	ug/L	98
35) Ethylacetate	6.39	88	26272	51.3680	ug/L	96
36) methacrylonitrile	6.53	67	100382	19.9502	ug/L	94
37) Bromochlorma	6.55	128	52303	8.3773	ug/L	95
38) Tetrahydofur	6.63	42	398420	114.9178	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL5.D Vial: 8
Acq On : 18 Jul 2023 12:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:18:43 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	191372	9.0269	ug/L	100
40)	111trichlota	6.91	97	169089	9.4894	ug/L	98
42)	Cyclohexane	6.99	56	219308	10.1625	ug/L	96
43)	Carbtetraclo	7.12	119	128895	9.3402	ug/L	100
44)	11dicloprope	7.11	110	54728	8.8147	ug/L	96
46)	Benzene	7.36	78	452894	9.0939	ug/L	98
47)	12dichlorota	7.36	62	159423	9.5958	ug/L	97
48)	TAME	7.53	73	293159	8.9700	ug/L	96
49)	trichloroete	8.17	95	118341	9.1369	ug/L	99
50)	methylcyclohexane	8.43	83	233222	9.5757	ug/L	99
51)	12dicloropra	8.43	63	119096	8.9586	ug/L	95
52)	23Dicl1propene	8.49	75	177459	8.8470	ug/L	98
53)	Dibromometha	8.56	93	67270	9.5427	ug/L	96
54)	methylmethacrylate	8.59	69	86947	9.7288	ug/L	97
55)	14dioxane	8.60	88	82027	792.8747	ug/L	98
56)	Bromodiclrma	8.76	83	136271	9.1785	ug/L	97
57)	2Nitropropane	9.03	43	262001	85.9666	ug/L	97
58)	2CLEVE	9.15	63	177644	35.1129	ug/L	99
59)	c13dicloproe	9.34	75	173106	9.2220	ug/L	97
60)	4Meth2Pentan	9.54	43	1099066	112.0581	ug/L	98
62)	Toluene	9.80	92	290937	9.1248	ug/L	99
63)	t13Dicloprop	10.05	75	143760	9.2415	ug/L	97
64)	ethylmethacrylate	10.20	69	290984	19.2279	ug/L	99
65)	112Triclotha	10.28	83	85376	9.5392	ug/L	96
66)	Tetrachlorte	10.53	166	128555	9.4158	ug/L	96
67)	13Diclorpropa	10.52	76	182565	9.3683	ug/L	100
69)	2Hexanone	10.63	43	869726	128.3288	ug/L	98
70)	Clorodibrmta	10.81	129	91834	9.6355	ug/L	94
71)	12Dibrometha	10.97	107	102738	10.1058	ug/L	97
72)	Chlorobenzen	11.65	112	303782	9.7357	ug/L	98
73)	1Clhexane	11.64	91	162385	9.2912	ug/L	98
74)	1112Tetclota	11.76	131	95156	9.5493	ug/L	98
75)	Ethylbenzene	11.82	91	529124	9.6861	ug/L	99
76)	m p-Xylene	11.98	106	407448	19.3549	ug/L	93
77)	o-Xylene	12.53	106	194546	9.2072	ug/L	99
78)	Styrene	12.54	104	317007	9.6397	ug/L	98
79)	Bromoform	12.77	173	55664	9.8477	ug/L	96
80)	Isopropylben	13.05	105	500365	9.9155	ug/L	98
81)	cyclohexanone	13.13	55	370280	314.1865	ug/L	98
84)	Bromobenzene	13.46	156	126220	9.9002	ug/L	98
85)	1122Tetrclta	13.44	83	132248	10.8820	ug/L	99
86)	123Triclproa	13.49	75	159030	10.6848	ug/L	96
87)	14dichloro2butene	13.52	53	34389	9.7401	ug/L	97
88)	n-Propylbenz	13.64	91	572887	10.4085	ug/L	100
89)	2chlorotolue	13.75	91	342047	9.8686	ug/L	99
90)	4chlorotolue	13.90	91	399797	10.0757	ug/L	99
91)	135Trimebenz	13.90	105	413278	10.3053	ug/L	99
92)	tbutylbenzen	14.36	119	349982	10.2080	ug/L	99
93)	124Trimetben	14.43	105	394185	10.1913	ug/L	99
94)	sbutylbenzen	14.68	105	490293	10.4515	ug/L	99
95)	13Diclorbenz	14.82	146	224014	9.9561	ug/L	98
96)	pIsopropylto	14.90	119	418521	10.4279	ug/L	98
97)	14dichlorobe	14.95	146	226493	9.7428	ug/L	98
98)	12dichlorobe	15.49	146	217128	9.9255	ug/L	100
99)	nButylbenzen	15.49	91	359429	9.7283	ug/L	100
100)	12dibromo3cl	16.57	157	21294	10.5815	ug/L	98
101)	135Trichlorobenzene	16.91	180	149419	9.2172	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL5.D Vial: 8
Acq On : 18 Jul 2023 12:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:18:43 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	118745	9.3031 ug/L	98
103) Hexachlorobu	17.96	225	54120	8.4375 ug/L	97
104) Naphthalene	18.02	128	222798	8.7743 ug/L	99
105) 123Trichlben	18.33	180	104566	9.4464 ug/L	99

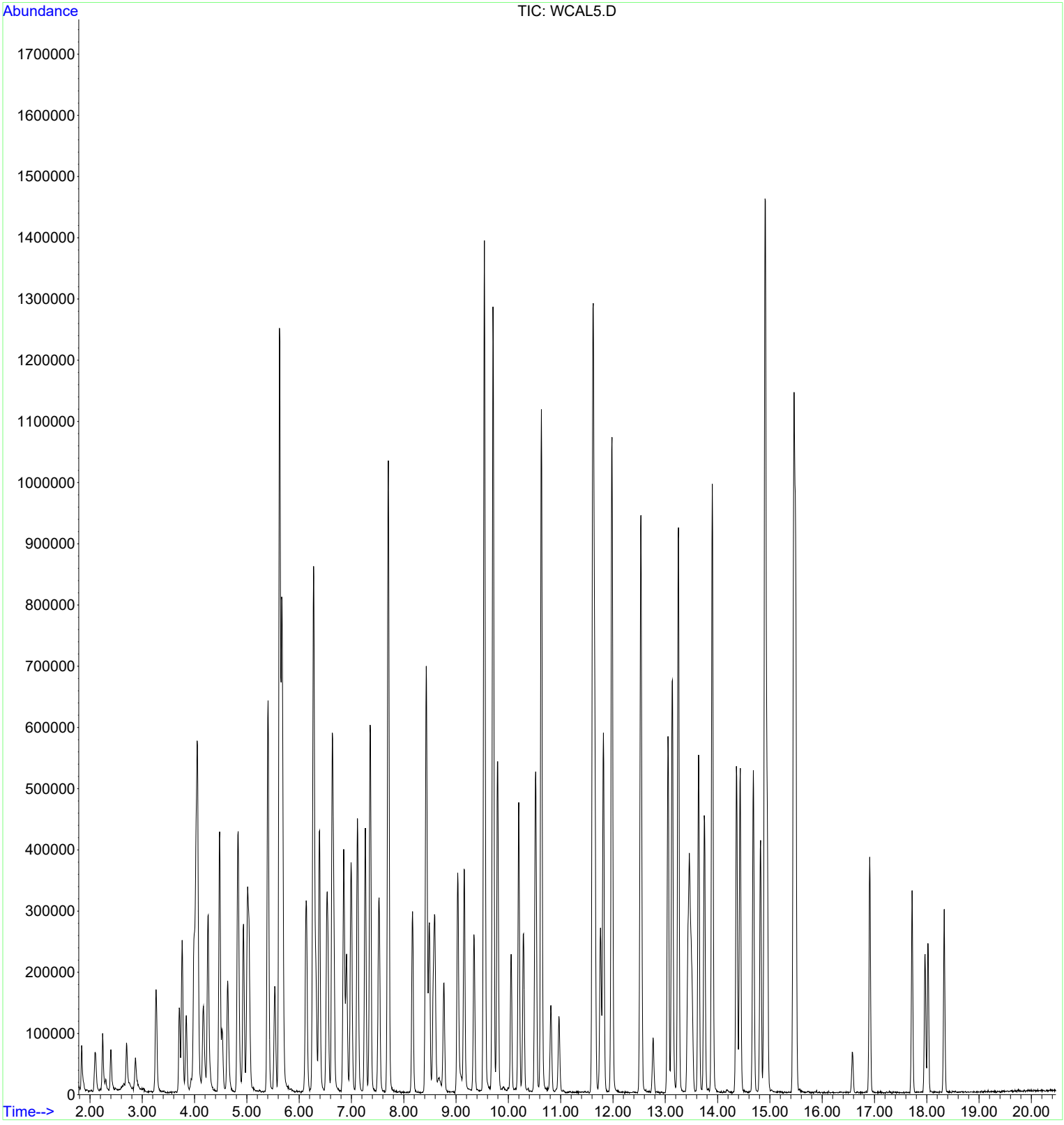
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL5.D Vial: 8
Acq On : 18 Jul 2023 12:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:18:43 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL6.D Vial: 9
Acq On : 18 Jul 2023 13:26 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:47:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1066574	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	799796	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	399603	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	269781	20.331	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.27	102	72717	19.710	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1044048	19.570	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.25	95	407290	20.400	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	169925	19.1964	ug/L	99
3) Chloromethan	2.10	50	195805	17.7990	ug/L	96
4) VinylChlorid	2.24	62	205772	18.2095	ug/L	99
5) Bromomethane	2.70	94	116607	15.5880	ug/L	98
6) Chloroethane	2.87	64	130358	17.1343	ug/L	98
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	361797	20.7320	ug/L	99
9) Ethylether	3.71	59	209256	18.4212	ug/L	97
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	471043	195.2963	ug/L	99
12) Acrolein	3.84	56	254732	127.6663	ug/L	95
13) 11dichlorthe	3.99	96	212706	19.6000	ug/L	97
14) Trichlorotfluoroeth	4.03	101	465949	40.6472	ug/L	98
15) Acetone	4.05	43	1043333	260.4098	ug/L	99
16) Iodomethane	4.17	142	514813	32.4902	ug/L	100
17) Carbon Dislf	4.26	76	1085540	38.1163	ug/L	100
18) allylchloride	4.47	41	691242	38.2703	ug/L	97
19) methylacetate	4.52	74	66815	24.7742	ug/L	99
20) Methylchlorid	4.63	84	220476	17.6281	ug/L	94
21) tbutylalcohol	4.83	59	1302897	1324.8250	ug/L	96
22) Acrylonitrile	4.93	53	532164	120.1999	ug/L	99
23) t12dichlorte	5.01	96	224094	18.1311	ug/L	98
24) MtBE	5.03	73	643417	18.9773	ug/L	98
25) Hexane	5.40	57	744766	40.1294	ug/L	99
26) 11dichlorota	5.53	63	404038	18.3713	ug/L	99
27) Vinylacetate	5.62	43	4157806	226.5391	ug/L	98
28) chloroprene	5.67	53	802206	40.2154	ug/L	97
29) Diisopether	5.68	45	759117	19.3035	ug/L	91
30) ETBE	6.13	59	687487	18.3806	ug/L	99
31) 22dichloropr	6.27	77	329162	18.9853	ug/L	99
32) c12dichlorte	6.27	96	248332	17.9360	ug/L	97
33) 2Butanone	6.28	72	373936	232.4061	ug/L	97
34) propionitrile	6.32	54	447939	260.6063	ug/L	99
35) Ethylacetate	6.39	88	58126	111.4657	ug/L	97
36) methacrylonitrile	6.53	67	225310	43.9181	ug/L	96
37) Bromochlorma	6.55	128	114190	17.9380	ug/L	99
38) Tetrahydofur	6.63	42	860664	243.4730	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL6.D Vial: 9
Acq On : 18 Jul 2023 13:26 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:47:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	396751	18.3547	ug/L	100
40)	111trichlota	6.90	97	354561	19.5158	ug/L	99
42)	Cyclohexane	6.99	56	454072	20.6367	ug/L	97
43)	Carbtetraclo	7.12	119	278795	19.8141	ug/L	99
44)	11dicloprope	7.11	110	119752	18.9169	ug/L	99
46)	Benzene	7.36	78	910543	17.9319	ug/L	98
47)	12dichlorota	7.36	62	327960	19.3607	ug/L	97
48)	TAME	7.53	73	619301	18.5850	ug/L	98
49)	trichloroete	8.17	95	236088	17.8776	ug/L	97
50)	methylcyclohexane	8.43	83	478571	19.2715	ug/L	99
51)	12dicloropra	8.43	63	248676	18.3463	ug/L	88
52)	23Dicl1propene	8.49	75	376017	18.3856	ug/L	99
53)	Dibromometha	8.56	93	140390	19.5324	ug/L	99
54)	methylmethacrylate	8.59	69	191816	21.0505	ug/L	98
55)	14dioxane	8.60	88	184061	1744.9400	ug/L	96
56)	Bromodiclrma	8.76	83	289648	19.1342	ug/L	98
57)	2Nitropropane	9.03	43	675441	202.7397	ug/L	99
58)	2CLEVE	9.15	63	442965	85.8730	ug/L	99
59)	c13dicloproe	9.34	75	369655	19.3143	ug/L	99
60)	4Meth2Pentan	9.54	43	2192829	219.2782	ug/L	97
62)	Toluene	9.79	92	594307	18.2814	ug/L	98
63)	t13Dicloprop	10.05	75	310365	19.5682	ug/L	99
64)	ethylmethacrylate	10.20	69	635964	41.2161	ug/L	99
65)	112Triclotha	10.29	83	179722	19.6947	ug/L	98
66)	Tetrachlorte	10.52	166	270803	19.4533	ug/L	95
67)	13Diclorpropa	10.52	76	380427	19.1463	ug/L	100
69)	2Hexanone	10.63	43	1697614	243.7458	ug/L	99
70)	Clorodibrmta	10.81	129	209294	21.3689	ug/L	96
71)	12Dibrometha	10.97	107	216668	20.7391	ug/L	100
72)	Chlorobenzen	11.65	112	622154	19.4025	ug/L	97
73)	1Clhexane	11.63	91	339519	18.9038	ug/L	97
74)	1112Tetclota	11.76	131	205317	20.0501	ug/L	99
75)	Ethylbenzene	11.82	91	1072549	19.1058	ug/L	99
76)	m p-Xylene	11.98	106	834127	38.5575	ug/L	99
77)	o-Xylene	12.53	106	409776	18.8716	ug/L	97
78)	Styrene	12.53	104	661440	19.5724	ug/L	98
79)	Bromoform	12.77	173	128827	22.1782	ug/L	99
80)	Isopropylben	13.05	105	1012279	19.5202	ug/L	97
81)	cyclohexanone	13.13	55	755103	623.4765	ug/L	98
84)	Bromobenzene	13.47	156	264195	20.0973	ug/L	98
85)	1122Tetrclta	13.44	83	285692	22.7989	ug/L	100
86)	123Triclproa	13.49	75	353303	23.0214	ug/L	98
87)	14dichloro2butene	13.52	53	81185	22.3006	ug/L	98
88)	n-Propylbenz	13.64	91	1153448	20.3243	ug/L	98
89)	2chlorotolue	13.75	91	702904	19.6681	ug/L	98
90)	4chlorotolue	13.90	91	805640	19.6913	ug/L	99
91)	135Trimebenz	13.90	105	827422	20.0097	ug/L	97
92)	tbutylbenzen	14.37	119	719223	20.3450	ug/L	100
93)	124Trimetben	14.43	105	801408	20.0947	ug/L	98
94)	sbutylbenzen	14.68	105	993724	20.5441	ug/L	98
95)	13Diclorbenz	14.82	146	464340	20.0146	ug/L	99
96)	pIsopropylto	14.90	119	846043	20.4441	ug/L	99
97)	14dichlorobe	14.95	146	480257	20.0356	ug/L	99
98)	12dichlorobe	15.49	146	445535	19.7523	ug/L	99
99)	nButylbenzen	15.49	91	744357	19.5389	ug/L	99
100)	12dibromo3cl	16.58	157	54324	26.1805	ug/L	97
101)	135Trichlorobenzene	16.91	180	313949	18.7823	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL6.D Vial: 9
Acq On : 18 Jul 2023 13:26 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:47:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	262939	19.9787	ug/L	100
103) Hexachlorobu	17.97	225	111049	16.7906	ug/L	98
104) Naphthalene	18.02	128	577676	22.0638	ug/L	99
105) 123Trichlben	18.33	180	231413	20.2749	ug/L	98

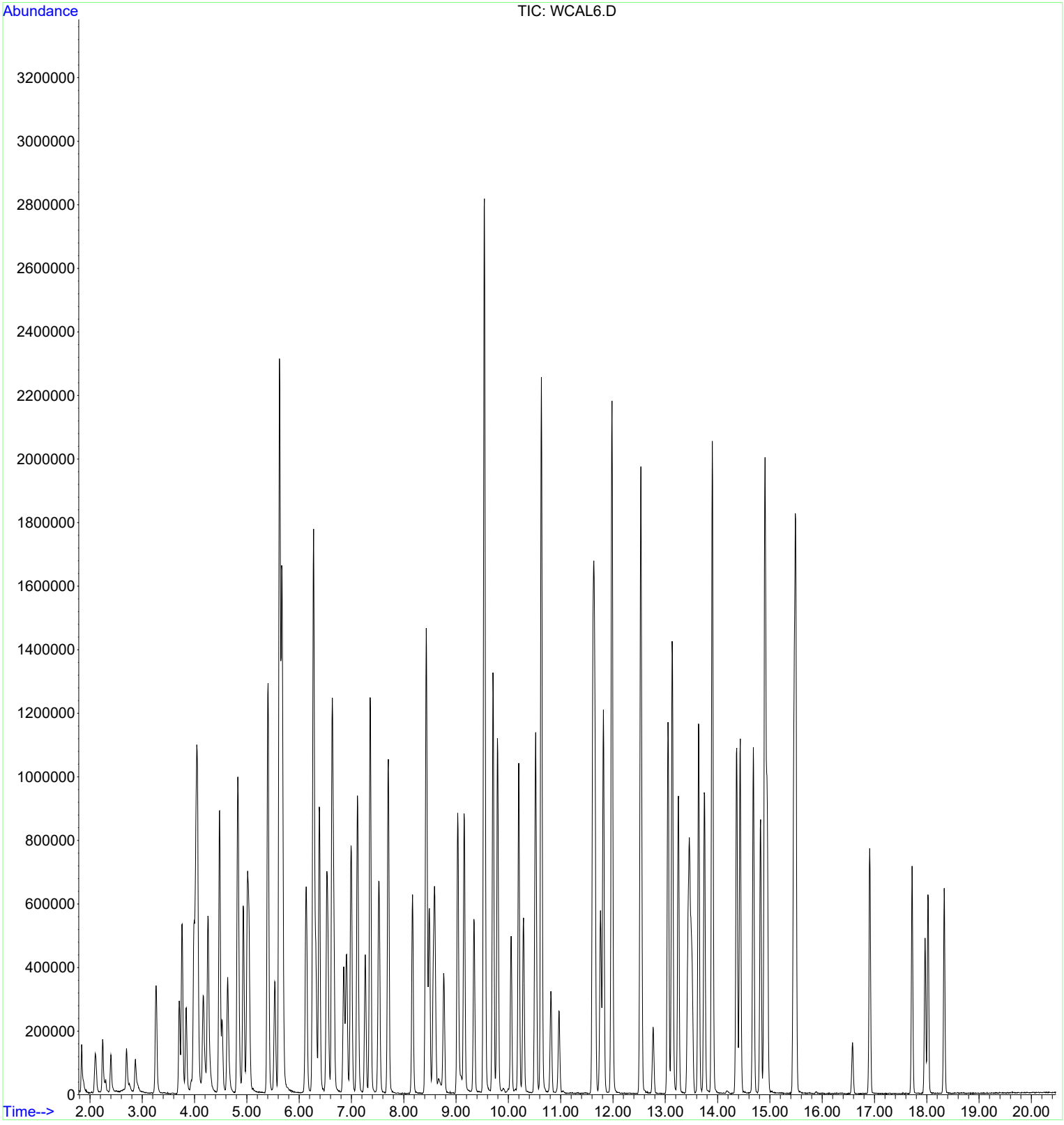
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL6.D Vial: 9
Acq On : 18 Jul 2023 13:26 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 13:47:26 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL7.D Vial: 10
Acq On : 18 Jul 2023 13:56 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:16:36 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1077324	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	807636	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	404024	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	283473	21.150	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 106	%		
45) SURR12DCAd4	7.26	102	73733	19.786	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1059131	19.654	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.25	95	411319	20.376	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	253053	28.1989	ug/L	98
3) Chloromethan	2.10	50	285909	25.7303	ug/L	96
4) VinylChlorid	2.24	62	301547	26.4188	ug/L	97
5) Bromomethane	2.70	94	169759	22.4669	ug/L	97
6) Chloroethane	2.87	64	191348	24.8999	ug/L	96
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	528305	29.9713	ug/L	99
9) Ethylether	3.71	59	316965	27.6246	ug/L	97
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	693402	284.6186	ug/L	98
12) Acrolein	3.84	56	381839	186.8490	ug/L	93
13) 11dichlorthe	3.99	96	315989	28.8266	ug/L	96
14) Trichlorotfluoroeth	4.02	101	694292	59.9624	ug/L	98
15) Acetone	4.05	43	1434589	399.7717	ug/L	99
16) Iodomethane	4.16	142	805452	50.3254	ug/L	98
17) Carbon Dislf	4.25	76	1599411	55.5994	ug/L	99
18) allylchloride	4.48	41	1019396	55.8752	ug/L	98
19) methylacetate	4.53	74	104209	38.2539	ug/L	100
20) Methylchlorid	4.63	84	327693	26.3684	ug/L	95
21) tbutylalcohol	4.83	59	1838501	1882.7139	ug/L	96
22) Acrylonitrile	4.93	53	763257	170.6766	ug/L	96
23) t12dichlorte	5.01	96	333038	26.6767	ug/L	98
24) MtBE	5.03	73	948321	27.6913	ug/L	97
25) Hexane	5.40	57	1101314	58.7487	ug/L	99
26) 11dichlorota	5.53	63	600725	27.0419	ug/L	99
27) Vinylacetate	5.62	43	5542058	350.3567	ug/L	94
28) chloroprene	5.67	53	1164342	57.7872	ug/L	98
29) Diisopether	5.68	45	1102085	27.7451	ug/L	94
30) ETBE	6.13	59	1035861	27.4183	ug/L	98
31) 22dichloropr	6.27	77	489166	27.9325	ug/L	98
32) c12dichlorte	6.27	96	370647	26.5032	ug/L	96
33) 2Butanone	6.28	72	532331	327.5493	ug/L	96
34) propionitrile	6.32	54	646655	372.4632	ug/L	99
35) Ethylacetate	6.38	88	86518	164.2562	ug/L	96
36) methacrylonitrile	6.53	67	333955	64.4460	ug/L	98
37) Bromochlorma	6.55	128	167467	26.0448	ug/L	99
38) Tetrahydofur	6.63	42	1221587	342.1261	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL7.D Vial: 10
Acq On : 18 Jul 2023 13:56 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:16:36 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	587983	26.9302	ug/L	99
40)	111trichlota	6.91	97	530404	28.9033	ug/L	98
42)	Cyclohexane	6.99	56	670531	30.1702	ug/L	98
43)	Carbtetraclo	7.12	119	426899	30.0372	ug/L	99
44)	11dicloprope	7.11	110	180319	28.2003	ug/L	96
46)	Benzene	7.36	78	1326283	25.8586	ug/L	96
47)	12dichlorota	7.36	62	487009	28.4631	ug/L	97
48)	TAME	7.52	73	923882	27.4487	ug/L	99
49)	trichloroete	8.17	95	362274	27.1592	ug/L	98
50)	methylcyclohexane	8.43	83	722460	28.8024	ug/L	99
51)	12dicloropra	8.42	63	379511	27.7194	ug/L	89
52)	23Dicl1propene	8.49	75	571739	27.6766	ug/L	98
53)	Dibromometha	8.56	93	213049	29.3456	ug/L	98
54)	methylmethacrylate	8.59	69	292632	31.7939	ug/L	97
55)	14dioxane	8.60	88	270750	2541.1591	ug/L	96
56)	Bromodiclrma	8.76	83	443628	29.0138	ug/L	100
57)	2Nitropropane	9.03	43	1051964	310.3221	ug/L	99
58)	2CLEVE	9.16	63	678303	130.1834	ug/L	99
59)	c13dicloproe	9.34	75	564283	29.1894	ug/L	99
60)	4Meth2Pentan	9.54	43	2984851	295.5003	ug/L	94
62)	Toluene	9.79	92	875927	26.6753	ug/L	96
63)	t13Dicloprop	10.05	75	480637	30.0013	ug/L	99
64)	ethylmethacrylate	10.20	69	929065	59.6109	ug/L	98
65)	112Triclotha	10.29	83	269796	29.2704	ug/L	98
66)	Tetrachlorte	10.53	166	404470	28.7654	ug/L	96
67)	13Diclorpropa	10.51	76	560894	27.9472	ug/L	97
69)	2Hexanone	10.63	43	2323814	330.4176	ug/L	97
70)	Clorodibrmta	10.81	129	322581	32.6158	ug/L	95
71)	12Dibrometha	10.97	107	326222	30.9222	ug/L	100
72)	Chlorobenzen	11.65	112	911433	28.1481	ug/L	97
73)	1Clhexane	11.63	91	499113	27.5199	ug/L	97
74)	1112Tetclota	11.76	131	314419	30.4064	ug/L	99
75)	Ethylbenzene	11.82	91	1553672	27.4076	ug/L	97
76)	m p-Xylene	11.98	106	1219258	55.8130	ug/L	96
77)	o-Xylene	12.53	106	607646	27.7126	ug/L	95
78)	Styrene	12.54	104	985121	28.8673	ug/L	98
79)	Bromoform	12.77	173	201519	34.3557	ug/L	98
80)	Isopropylben	13.05	105	1481451	28.2901	ug/L	95
81)	cyclohexanone	13.13	55	1039622	850.0665	ug/L	99
84)	Bromobenzene	13.46	156	390422	29.3745	ug/L	99
85)	1122Tetrclta	13.43	83	417460	32.9498	ug/L	99
86)	123Triclproa	13.50	75	526758	33.9482	ug/L	100
87)	14dichloro2butene	13.52	53	124671	33.8709	ug/L	93
88)	n-Propylbenz	13.64	91	1664606	29.0102	ug/L	96
89)	2chlorotolue	13.75	91	1035893	28.6683	ug/L	96
90)	4chlorotolue	13.90	91	1186742	28.6887	ug/L	97
91)	135Trimebenz	13.90	105	1220555	29.1939	ug/L	96
92)	tbutylbenzen	14.37	119	1062538	29.7276	ug/L	99
93)	124Trimetben	14.43	105	1180399	29.2737	ug/L	97
94)	sbutylbenzen	14.68	105	1433708	29.3159	ug/L	96
95)	13Diclorbenz	14.82	146	691597	29.4840	ug/L	99
96)	pIsopropylto	14.90	119	1254055	29.9719	ug/L	97
97)	14dichlorobe	14.95	146	710471	29.3154	ug/L	99
98)	12dichlorobe	15.49	146	662082	29.0314	ug/L	99
99)	nButylbenzen	15.49	91	1100463	28.5704	ug/L	97
100)	12dibromo3cl	16.58	157	84729	40.3869	ug/L	95
101)	135Trichlorobenzene	16.91	180	481619	28.4981	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL7.D Vial: 10
Acq On : 18 Jul 2023 13:56 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:16:36 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	410068	30.8169	ug/L	99
103) Hexachlorobu	17.97	225	172937	25.8619	ug/L	99
104) Naphthalene	18.02	128	862730	32.5907	ug/L	98
105) 123Trichlben	18.33	180	360273	31.2194	ug/L	99

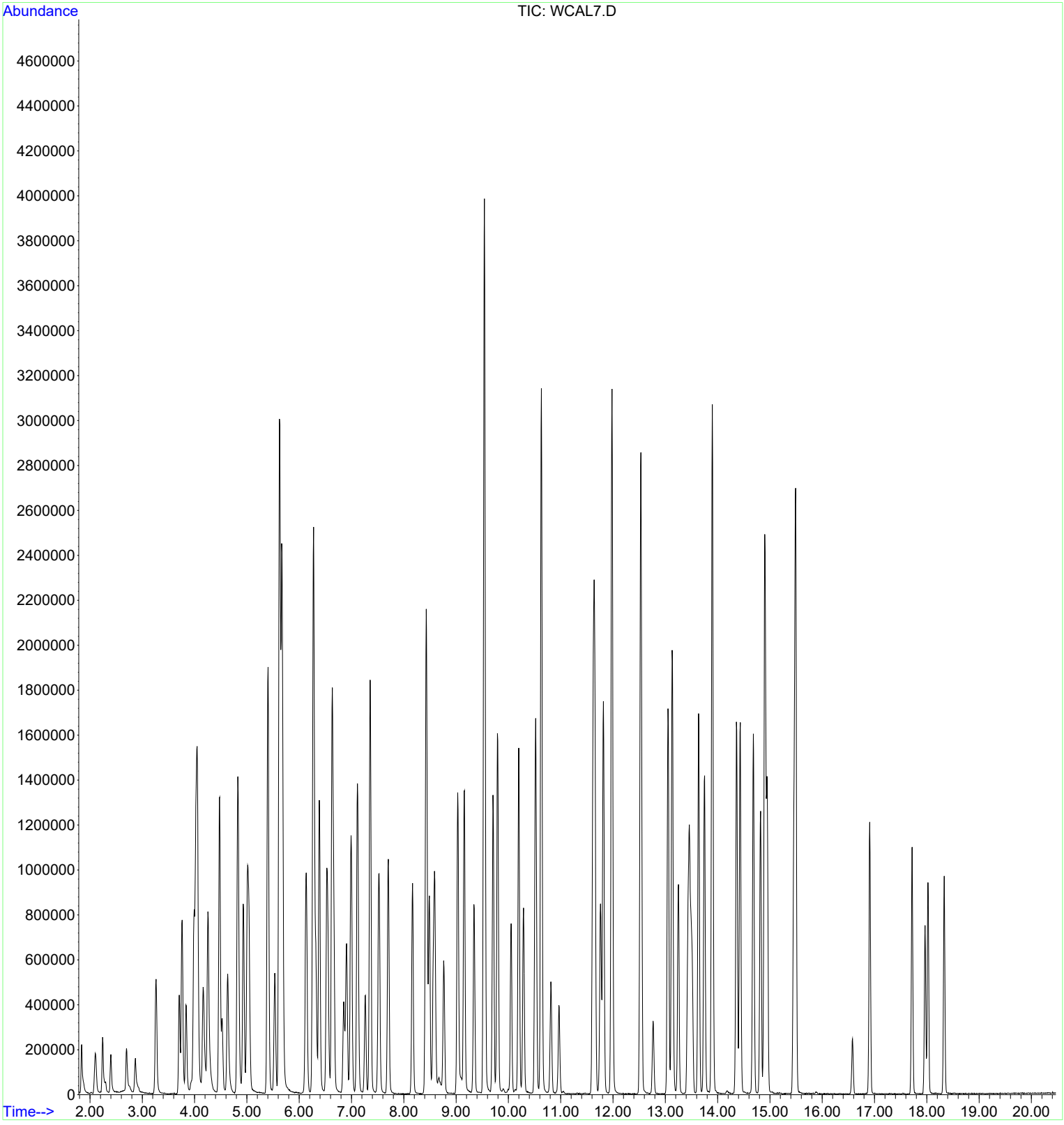
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL7.D Vial: 10
Acq On : 18 Jul 2023 13:56 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:16:36 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL8.D Vial: 11
Acq On : 18 Jul 2023 14:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:45:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1088570	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	800431	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	411559	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	280039	20.678	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.27	102	76534	20.325	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%		
61) SURRd8Tolule	9.71	98	1073271	19.711	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99	%		
83) SURR4BrFBenz	13.25	95	416585	20.259	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	339340	37.4908	ug/L	98
3) Chloromethan	2.11	50	393119	35.0132	ug/L	97
4) VinylChlorid	2.24	62	414438	35.9341	ug/L	100
5) Bromomethane	2.70	94	224906	29.4579	ug/L	99
6) Chloroethane	2.87	64	269491	34.7063	ug/L	96
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	708154	39.7593	ug/L	99
9) Ethylether	3.71	59	429419	37.0387	ug/L	97
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	960061	390.0021	ug/L	97
12) Acrolein	3.84	56	519984	249.7429	ug/L	93
13) 11dichlorthe	3.99	96	423923	38.2736	ug/L	95
14) Trichlorotfluoroeth	4.03	101	925223	79.0812	ug/L	97
15) Acetone	4.05	43	2175560	Below Cal		98
16) Iodomethane	4.17	142	1089881	67.3933	ug/L	98
17) Carbon Dislf	4.25	76	2142088	73.6949	ug/L	99
18) allylchloride	4.47	41	1350395	73.2532	ug/L	99
19) methylacetate	4.53	74	147868	53.7198	ug/L	100
20) Methylchlorid	4.63	84	444676	35.9344	ug/L	96
21) tbutylalcohol	4.83	59	2550469	2665.5689	ug/L	96
22) Acrylonitrile	4.93	53	1035511	229.1648	ug/L	97
23) t12dichlorte	5.01	96	460509	36.5062	ug/L	99
24) MtBE	5.04	73	1284395	37.1173	ug/L	96
25) Hexane	5.40	57	1460915	77.1262	ug/L	98
26) 11dichlorota	5.53	63	814535	36.2878	ug/L	98
27) Vinylacetate	5.62	43	6581241	Below Cal		91
28) chloroprene	5.67	53	1538687	75.5773	ug/L	99
29) Diisopether	5.68	45	1463649	36.4669	ug/L	94
30) ETBE	6.13	59	1379458	36.1358	ug/L	97
31) 22dichloropr	6.27	77	673539	38.0632	ug/L	99
32) c12dichlorte	6.26	96	504124	35.6751	ug/L	97
33) 2Butanone	6.28	72	787246	479.3970	ug/L	96
34) propionitrile	6.32	54	882234	502.9033	ug/L	99
35) Ethylacetate	6.39	88	119522	224.5707	ug/L	98
36) methacrylonitrile	6.53	67	451732	86.2738	ug/L	98
37) Bromochlorma	6.55	128	224605	34.5701	ug/L	97
38) Tetrahydofur	6.63	42	1630497	451.9306	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL8.D Vial: 11
Acq On : 18 Jul 2023 14:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:45:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.66	83	788793	35.7543	ug/L	99
40) 111trichlota	6.90	97	714761	38.5470	ug/L	98
42) Cyclohexane	7.00	56	909735	40.5102	ug/L	98
43) Carbtetraclo	7.13	119	596437	41.5326	ug/L	98
44) 11dicloprope	7.11	110	248522	38.4651	ug/L	96
46) Benzene	7.36	78	1760981	33.9793	ug/L	95
47) 12dichlorota	7.36	62	652472	37.7396	ug/L	98
48) TAME	7.53	73	1236251	36.3498	ug/L	98
49) trichloroete	8.17	95	494104	36.6597	ug/L	98
50) methylcyclohexane	8.43	83	973455	38.4079	ug/L	100
51) 12dicloropra	8.42	63	511595	36.9807	ug/L	88
52) 23Dicl1propene	8.49	75	770113	36.8943	ug/L	99
53) Dibromometha	8.56	93	291779	39.7748	ug/L	98
54) methylmethacrylate	8.59	69	402390	43.2672	ug/L	98
55) 14dioxane	8.60	88	379357	3523.7206	ug/L	97
56) Bromodiclrma	8.76	83	605082	39.1642	ug/L	99
57) 2Nitropropane	9.03	43	1483516	435.0161	ug/L	99
58) 2CLEVE	9.15	63	969842	184.2141	ug/L	98
59) c13dicloproe	9.35	75	753458	38.5724	ug/L	99
60) 4Meth2Pentan	9.54	43	3834023	375.6471	ug/L	91
62) Toluene	9.79	92	1164574	35.0994	ug/L	95
63) t13Dicloprop	10.05	75	670593	41.4258	ug/L	99
64) ethylmethacrylate	10.20	69	1267676	80.4966	ug/L	99
65) 112Triclotha	10.29	83	358564	38.4990	ug/L	98
66) Tetrachlorte	10.53	166	549535	38.6784	ug/L	97
67) 13Diclorpropa	10.51	76	758481	37.4018	ug/L	97
69) 2Hexanone	10.63	43	3157397	452.9839	ug/L	94
70) Clorodibrmta	10.81	129	443565	45.2520	ug/L	95
71) 12Dibrometha	10.97	107	444590	42.5216	ug/L	100
72) Chlorobenzen	11.65	112	1216135	37.8964	ug/L	97
73) 1Clhexane	11.63	91	693491	38.5816	ug/L	95
74) 1112Tetclota	11.76	131	435813	42.5254	ug/L	99
75) Ethylbenzene	11.82	91	2035383	36.2284	ug/L	95
76) m p-Xylene	11.98	106	1620324	74.8400	ug/L	92
77) o-Xylene	12.53	106	815434	37.5238	ug/L	92
78) Styrene	12.54	104	1305061	38.5868	ug/L	96
79) Bromoform	12.77	173	288151	49.5672	ug/L	98
80) Isopropylben	13.05	105	1945412	37.4844	ug/L	93
81) cyclohexanone	13.13	55	1581895	1305.1092	ug/L	99
84) Bromobenzene	13.46	156	529262	39.0914	ug/L	99
85) 1122Tetrclta	13.43	83	565799	43.8404	ug/L	98
86) 123Triclproa	13.50	75	738263	46.7080	ug/L	100
87) 14dichloro2butene	13.52	53	177430	47.3221	ug/L	91
88) n-Propylbenz	13.64	91	2186639	37.4103	ug/L	94
89) 2chlorotolue	13.75	91	1376379	37.3938	ug/L	95
90) 4chlorotolue	13.90	91	1576589	37.4152	ug/L	96
91) 135Trimebenz	13.90	105	1617777	37.9865	ug/L	96
92) tbutylbenzen	14.37	119	1418676	38.9649	ug/L	99
93) 124Trimetben	14.43	105	1572010	38.2719	ug/L	95
94) sbutylbenzen	14.68	105	1908023	38.3003	ug/L	94
95) 13Diclorbenz	14.82	146	925734	38.7431	ug/L	98
96) pIsopropylto	14.90	119	1676032	39.3237	ug/L	97
97) 14dichlorobe	14.95	146	941368	38.1315	ug/L	99
98) 12dichlorobe	15.49	146	889551	38.2915	ug/L	100
99) nButylbenzen	15.49	91	1458931	37.1835	ug/L	94
100) 12dibromo3cl	16.58	157	122455	57.3007	ug/L	98
101) 135Trichlorobenzene	16.91	180	660163	38.3476	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL8.D Vial: 11
Acq On : 18 Jul 2023 14:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:45:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	562266	41.4810	ug/L	99
103) Hexachlorobu	17.97	225	241188	35.4081	ug/L	99
104) Naphthalene	18.02	128	1238657	45.9351	ug/L	98
105) 123Trichlben	18.33	180	500134	42.5456	ug/L	99

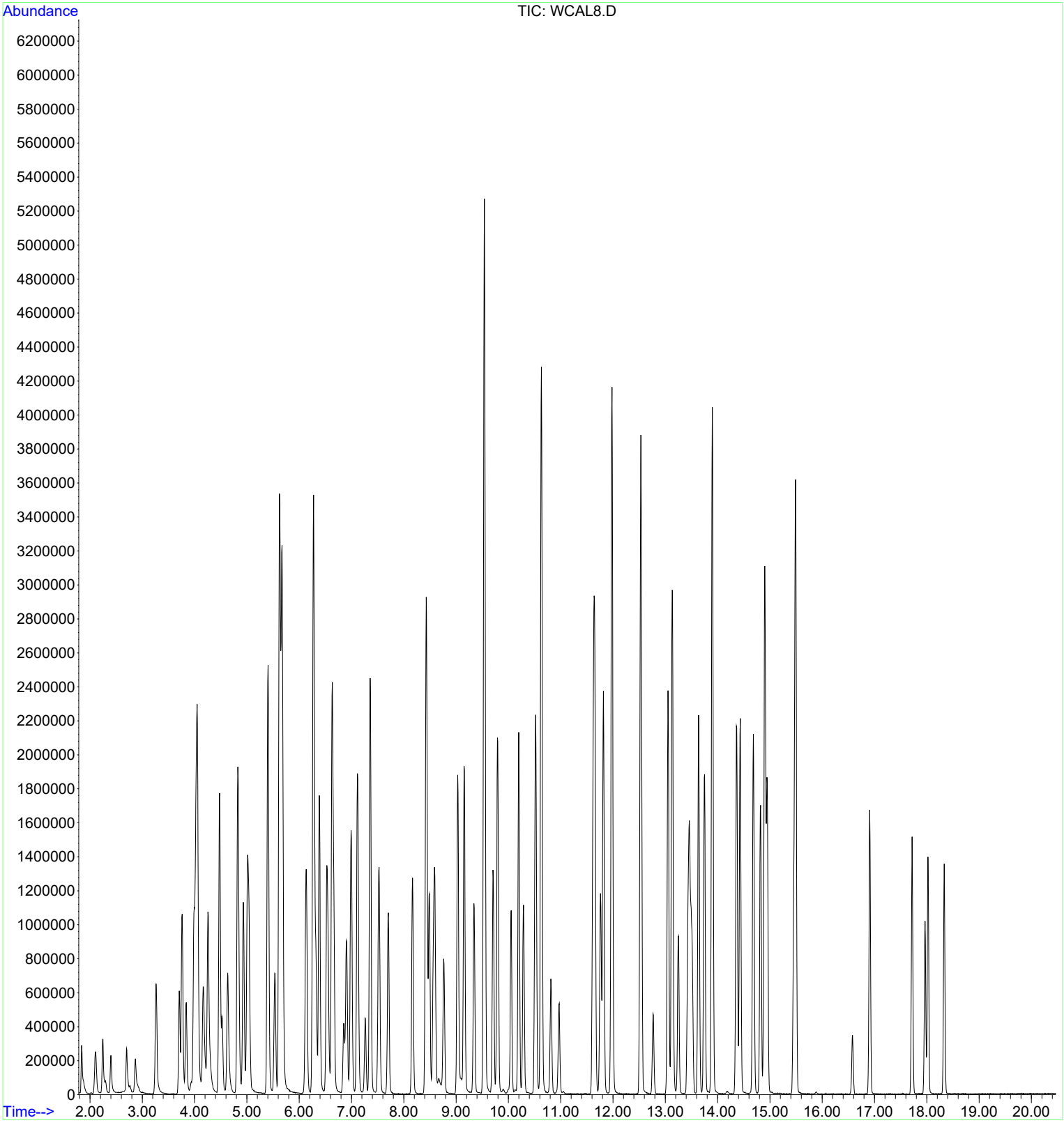
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL8.D Vial: 11
Acq On : 18 Jul 2023 14:24 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 14:45:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL9.D Vial: 12
Acq On : 18 Jul 2023 14:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 15:14:56 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1124532	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	820143	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	419785	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	286824	20.502	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.27	102	78229	20.111	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1089374	19.367	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 97	%		
83) SURR4BrFBenz	13.25	95	421440	20.094	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	661784	72.2241	ug/L	100
3) Chloromethan	2.11	50	765512	66.0000	ug/L	97
4) VinylChlorid	2.24	62	800906	67.2223	ug/L	98
5) Bromomethane	2.70	94	369180	46.8084	ug/L	99
6) Chloroethane	2.86	64	515113	64.2171	ug/L	98
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	1345553	73.1301	ug/L	99
9) Ethylether	3.71	59	833824	69.6200	ug/L	98
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	1800380	707.9732	ug/L	97
12) Acrolein	3.84	56	982606	450.5054	ug/L	95
13) 11dichlorthe	3.99	96	825313	72.1299	ug/L	97
14) Trichlorotfluoroeth	4.03	101	1759820	145.6062	ug/L	95
15) Acetone	4.05	43	3691048	Below Cal		93
16) Iodomethane	4.16	142	2135003	127.7971	ug/L	96
17) Carbon Dislf	4.26	76	4008445	133.4936	ug/L	96
18) allylchloride	4.48	41	2468425	129.6195	ug/L	98
19) methylacetate	4.53	74	290064	102.0090	ug/L	100
20) Methylchlorid	4.63	84	849042	69.4846	ug/L	94
21) tbutylalcohol	4.83	59	4301130	4814.1408	ug/L	93
22) Acrylonitrile	4.94	53	1912046	409.6152	ug/L	96
23) t12dichlorte	5.01	96	892502	68.4892	ug/L	98
24) MtBE	5.04	73	2370664	66.3181	ug/L	93
25) Hexane	5.40	57	2677013	136.8082	ug/L	94
26) 11dichlorota	5.53	63	1539087	66.3741	ug/L	98
27) Vinylacetate	5.62	43	9584941	Below Cal		79
28) chloroprene	5.67	53	2787202	132.5238	ug/L	95
29) Diisopether	5.68	45	2697648	65.0626	ug/L	98
30) ETBE	6.13	59	2551617	64.7037	ug/L	94
31) 22dichloropr	6.27	77	1309271	71.6237	ug/L	96
32) c12dichlorte	6.27	96	961427	65.8611	ug/L	98
33) 2Butanone	6.28	72	1463226	862.5431	ug/L	93
34) propionitrile	6.32	54	1641171	905.6056	ug/L	97
35) Ethylacetate	6.39	88	239820	436.1895	ug/L	92
36) methacrylonitrile	6.53	67	864936	159.9066	ug/L	99
37) Bromochlorma	6.55	128	437127	65.1289	ug/L	97
38) Tetrahydofur	6.63	42	2891559	775.8332	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL9.D Vial: 12
Acq On : 18 Jul 2023 14:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 15:14:56 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	1483899	65.1109	ug/L		98
40)	111trichlota	6.91	97	1402570	73.2216	ug/L		98
42)	Cyclohexane	6.99	56	1744103	75.1807	ug/L		97
43)	Carbtetraclo	7.13	119	1195113	80.5597	ug/L		96
44)	11dicloprope	7.11	110	492759	73.8281	ug/L		92
46)	Benzene	7.36	78	3116118	58.2047	ug/L		91
47)	12dichlorota	7.36	62	1236195	69.2161	ug/L		100
48)	TAME	7.53	73	2321372	66.0732	ug/L		96
49)	trichloroete	8.17	95	953997	68.5175	ug/L		99
50)	methylcyclohexane	8.43	83	1855406	70.8644	ug/L		99
51)	12dicloropra	8.43	63	990795	69.3294	ug/L		87
52)	23Dicl1propene	8.49	75	1473144	68.3178	ug/L		97
53)	Dibromometha	8.56	93	577139	76.1586	ug/L		97
54)	methylmethacrylate	8.59	69	779546	81.1406	ug/L		99
55)	14dioxane	8.60	88	713065	6411.6089	ug/L		96
56)	Bromodiclrma	8.76	83	1169945	73.3036	ug/L		98
57)	2Nitropropane	9.03	43	2843248	838.2763	ug/L		99
58)	2CLEVE	9.16	63	1855919	341.2444	ug/L		95
59)	c13dicloproe	9.35	75	1451249	71.9192	ug/L		97
60)	4Meth2Pentan	9.54	43	5885183	558.1743	ug/L		81
62)	Toluene	9.79	92	2133911	62.2577	ug/L		90
63)	t13Dicloprop	10.05	75	1302444	77.8854	ug/L		98
64)	ethylmethacrylate	10.20	69	2288334	140.6609	ug/L		95
65)	112Triclotha	10.29	83	690675	71.7862	ug/L		96
66)	Tetrachlorte	10.53	166	1057836	72.0736	ug/L		95
67)	13Diclorpropa	10.52	76	1422724	67.9130	ug/L		95
69)	2Hexanone	10.63	43	4964374	695.1082	ug/L		87
70)	Clorodibrmta	10.81	129	893951	89.0080	ug/L		95
71)	12Dibrometha	10.97	107	861543	80.4194	ug/L		98
72)	Chlorobenzen	11.65	112	2199138	66.8810	ug/L		97
73)	1Clhexane	11.63	91	1310473	71.1544	ug/L		95
74)	1112Tetclota	11.76	131	859662	81.8672	ug/L		98
75)	Ethylbenzene	11.82	91	3528668	61.2982	ug/L		90
76)	m p-Xylene	11.98	106	2886784	130.1309	ug/L	#	83
77)	o-Xylene	12.53	106	1510601	67.8426	ug/L	#	87
78)	Styrene	12.54	104	2366405	68.2860	ug/L		93
79)	Bromoform	12.77	173	595639	99.9980	ug/L		97
80)	Isopropylben	13.05	105	3371114	63.3937	ug/L		87
81)	cyclohexanone	13.14	55	2724298	2193.6034	ug/L		95
84)	Bromobenzene	13.47	156	1015268	73.5185	ug/L		98
85)	1122Tetrclta	13.43	83	1075501	81.7013	ug/L		98
86)	123Triclproa	13.50	75	1441811	89.4322	ug/L		99
87)	14dichloro2butene	13.52	53	365953	95.6901	ug/L		86
88)	n-Propylbenz	13.64	91	3743894	62.7975	ug/L		88
89)	2chlorotolue	13.75	91	2466017	65.6846	ug/L		91
90)	4chlorotolue	13.90	91	2816675	65.5347	ug/L		91
91)	135Trimebenz	13.90	105	2876218	66.2121	ug/L		90
92)	tbutylbenzen	14.37	119	2573766	69.3049	ug/L		95
93)	124Trimetben	14.43	105	2788040	66.5470	ug/L		90
94)	sbutylbenzen	14.68	105	3342690	65.7839	ug/L		89
95)	13Diclorbenz	14.82	146	1729569	70.9661	ug/L		96
96)	pIsopropylto	14.90	119	2970612	68.3319	ug/L		92
97)	14dichlorobe	14.95	146	1763677	70.0404	ug/L		97
98)	12dichlorobe	15.49	146	1651674	69.7045	ug/L		98
99)	nButylbenzen	15.49	91	2633060	65.7933	ug/L		91
100)	12dibromo3cl	16.58	157	248918	114.1944	ug/L		99
101)	135Trichlorobenzene	16.91	180	1268331	72.2312	ug/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL9.D Vial: 12
Acq On : 18 Jul 2023 14:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 15:14:56 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	1096392	79.3010	ug/L	99
103) Hexachlorobu	17.97	225	475967	68.5061	ug/L	99
104) Naphthalene	18.02	128	2263322	82.2896	ug/L	95
105) 123Trichlben	18.33	180	968769	80.7967	ug/L	99

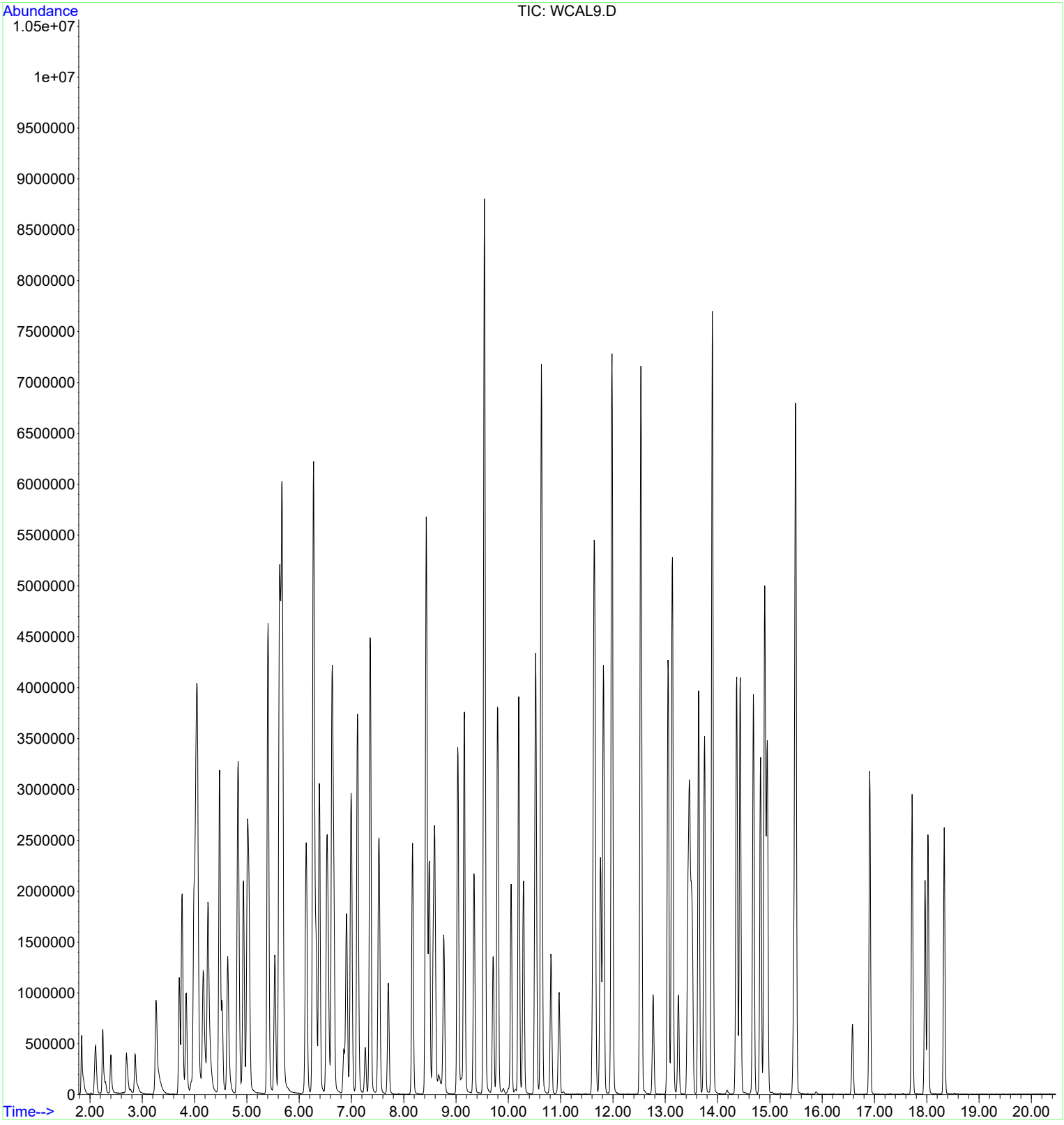
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\WCAL9.D Vial: 12
Acq On : 18 Jul 2023 14:54 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 18 15:14:56 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sat Jun 24 10:59:51 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV1.D Vial: 14
Acq On : 18 Jul 2023 15:51 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 19 07:17:30 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	103	0.00
2	PT	Dichlorodi	0.1450	0.1640	-13.10	108	0.00
3	PT	Chloromethan	0.1928	0.1862	3.42	103	0.00
4	PT	VinylChlorid	0.1831	0.1927	-5.24	100	0.00
5	PT	Bromomethane	0.1143	0.1366	-19.51	119	0.00
6	PT	Chloroethane	0.1187	0.1222	-2.95	102	0.00
7	T	Dichloroflmethane	0.4825	0.0000	100.00#	0#	-3.18#
8	PT	Trichlorofma	0.3126	0.3360	-7.49	106	0.00
9	T	Ethylether	0.1987	0.2006	-0.96	112	0.00
10	T	dichlorotfluoroethan	0.5454	0.0000	100.00#	0#	-3.72#
11	T	propyleneoxide	0.0431	0.0444	-3.02	114	0.00
12	T	Acrolein	0.0479	0.0509	-6.26	116	0.00
13	PT	11dichlorthe	0.1837	0.1948	-6.04	105	0.00
14	PT	Trichlorotfluoroeth	0.2009	0.2239	-11.45	107	0.00
15	PT	Acetone	0.1063	0.0911#	14.30	83	0.00
16	T	Iodomethane	0.2109	0.2124	-0.71	100	0.00
17	PT	Carbon Dislf	0.4890	0.5428	-11.00	110	0.00
18	T	allylchloride	0.3146	0.3289	-4.55	107	0.00
19	PT	methylacetate	0.0643	0.0693#	-7.78	115	0.00
20	PT	Methylchlorid	0.2252	0.2119	5.91	108	0.00
21	T	tbutylalcohol	0.0226	0.0260	-15.04	123	0.00
22	T	Acrylonitrile	0.0969	0.1016	-4.85	112	0.00
23	PT	t12dichlorte	0.2082	0.2169	-4.18	107	0.00
24	PT	MtBE	0.6000	0.6270	-4.50	109	0.00
25	T	Hexane	0.3198	0.3594	-12.38	106	0.00
26	PT	11dichlorota	0.3850	0.3919	-1.79	106	0.00
27	T	Vinylacetate	0.4243	0.4569	-7.68	111	0.00
28	T	chloroprene	0.3578	0.3848	-7.55	105	0.00
29	T	Diisopether	0.6956	0.7444	-7.02	108	0.00
30	T	ETBE	0.6453	0.6856	-6.25	111	0.00
31	T	22dichloropr	0.2958	0.2966	-0.27	104	0.00
32	PT	c12dichlorte	0.2350	0.2324	1.11	105	0.00
33	PT	2Butanone	0.0350	0.0350#	0.00	102	0.00
34	T	propionitrile	0.0406	0.0432	-6.40	115	0.00
35	T	Ethylacetate	0.0107	0.0109	-1.87	112	0.00
36	T	methacrylonitrile	0.1009	0.1034	-2.48	111	0.00
37	T	Bromochlorma	0.1059	0.1088	-2.74	112	0.00
38	T	Tetrahydofur	0.0793	0.0849	-7.06	115	0.00
39	PT	Chloroform	0.3720	0.3780	-1.61	107	0.00
40	PT	111trichlota	0.3134	0.3312	-5.68	106	0.00
41	S	SURRDibrflma	0.2541	0.2571	-1.18	105	0.00
42	PT	Cyclohexane	0.3886	0.4347	-11.86	107	0.00
43	PT	Carbtetraclo	0.2440	0.2532	-3.77	106	0.00
44	T	11dicloprope	0.1057	0.1096	-3.69	108	0.00
45	S	SURR12DCAd4	0.0698	0.0695	0.43	102	0.00
46	PT	Benzene	0.8544	0.8795	-2.94	105	0.00
47	PT	12dichlorota	0.3124	0.3166	-1.34	107	0.00
48	T	TAME	0.5752	0.5988	-4.10	110	0.00

49	PT	trichloroete	0.2262	0.2265	-0.13	103	0.00
50	PT	methylcyclohexane	0.4119	0.4531	-10.00	105	0.00
51	PT	12dicloropra	0.2381	0.2442	-2.56	111	0.00
52	T	23Dicl1propene	0.3450	0.3651	-5.83	111	0.00
53	T	Dibromometha	0.1309	0.1318	-0.69	106	0.00
54	T	methylmethacrylate	0.1689	0.1823	-7.93	113	0.00
55	T	14dioxane	0.0033	0.0036	-9.09	118	0.00
56	PT	Bromodiclrma	0.2652	0.2702	-1.89	107	0.00
57	T	2Nitropropane	0.0544	0.0564	-3.68	116	0.00
58	T	2CLEVE	0.0797	0.0858	-7.65	130	0.00
59	PT	c13dicloproe	0.3292	0.3427	-4.10	107	0.00
60	PT	4Meth2Pentan	0.2140	0.2302	-7.57	113	0.00
61	S	SURRd8Tolule	0.9777	0.9739	0.39	103	0.00
62	PT	Toluene	0.5578	0.5746	-3.01	107	0.00
63	PT	t13Dicloprop	0.2761	0.2892	-4.74	109	0.00
64	T	ethylmethacrylate	0.2783	0.3053	-9.70	113	0.00
65	PT	112Triclotha	0.1655	0.1707	-3.14	108	0.00
66	PT	Tetrachlorte	0.2450	0.2523	-2.98	106	0.00
67	T	13Diclorpropa	0.3570	0.3631	-1.71	107	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	104	0.00
69	PT	2Hexanone	0.2103	0.2275	-8.18	106	0.00
70	PT	Clorodibrmta	0.2496	0.2632	-5.45	116	0.00
71	PT	12Dibrometha	0.2696	0.2743	-1.74	108	0.00
72	PT	Chlorobenzen	0.7934	0.7882	0.66	105	0.00
73	T	1Clhexane	0.4115	0.4226	-2.70	105	0.00
74	T	1112Tetclota	0.2480	0.2508	-1.13	106	0.00
75	PT	Ethylbenzene	1.3345	1.4026	-5.10	107	0.00
76	PT	m p-Xylene	0.5101	0.5464	-7.12	108	0.00
77	PT	o-Xylene	0.4987	0.5228	-4.83	108	0.00
78	PT	Styrene	0.8008	0.8427	-5.23	107	0.00
79	PT	Bromoform	0.1505	0.1549	-2.92	112	0.00
80	PT	Isopropylben	1.2308	1.3146	-6.81	106	0.00
81	T	cyclohexanone	0.0460	0.0424	7.83	92	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	104	0.00
83	S	SURR4BrFBenz	1.0216	1.0266	-0.49	103	0.00
84	T	Bromobenzene	0.6605	0.6604	0.02	105	0.00
85	PT	1122Tetrclta	0.7076	0.7310	-3.31	111	0.00
86	T	123Triclproa	0.8708	0.9046	-3.88	114	0.00
87	T	14dichloro2butene	0.1872	0.2035	-8.71	119	0.00
88	T	n-Propylbenz	2.8285	2.9813	-5.40	104	0.00
89	T	2chlorotolue	1.7884	1.8119	-1.31	106	0.00
90	T	4chlorotolue	2.0141	2.0901	-3.77	105	0.00
91	T	135Trimebenz	2.0190	2.1526	-6.62	105	0.00
92	T	tbutylbenzen	1.7359	1.8445	-6.26	106	0.00
93	T	124Trimetben	1.9745	2.0717	-4.92	105	0.00
94	T	sbutylbenzen	2.3633	2.5628	-8.44	105	0.00
95	PT	13Diclorbenz	1.1651	1.2094	-3.80	108	0.00
96	T	pIsopropylto	2.0322	2.2018	-8.35	106	0.00
97	PT	14dichlorobe	1.2014	1.2302	-2.40	109	0.00
98	PT	12dichlorobe	1.1391	1.1423	-0.28	106	0.00
99	T	nButylbenzen	1.7788	1.8748	-5.40	105	0.00
100	PT	12dibromo3cl	0.1277	0.1327	-3.92	125	0.00
101	T	135Trichlorobenzene	0.7976	0.8283	-3.85	111	0.00
102	PT	124Trichlobe	0.6328	0.6689	-5.70	113	0.00
103	T	Hexachlorobu	0.2779	0.2871	-3.31	107	0.00
104	T	Naphthalene	1.2088	1.3643	-12.86	123	0.00
105	T	123Trichlben	0.5551	0.5921	-6.67	114	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W071823.M Wed Jul 19 07:32:33 2023

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV1.D Vial: 14
Acq On : 18 Jul 2023 15:51 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 19 07:17:30 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	103	0.00
2	PT	Dichlorodi	10.0000	11.3075	-13.07	108	0.00
3	PT	Chloromethan	10.0000	9.6553	3.45	103	0.00
4	PT	VinylChlorid	10.0000	10.5270	-5.27	100	0.00
5	PT	Bromomethane	10.0000	11.6873	-16.87	119	0.00
6	PT	Chloroethane	10.0000	10.2940	-2.94	102	0.00
7	T	Dichloroflmethane	10.0000	0.0000	100.00#	0	-3.18#
8	PT	Trichlorofma	10.0000	10.7479	-7.48	106	0.00
9	T	Ethylether	10.0000	10.0951	-0.95	112	0.00
10	T	dichlorotfluoroethan	10.0000	0.0000	100.00#	0	-3.72#
11	T	propyleneoxide	100.0000	102.9030	-2.90	114	0.00
12	T	Acrolein	50.0000	53.1681	-6.34	116	0.00
13	PT	11dichlorthe	10.0000	10.6012	-6.01	105	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.2880	-11.44	107	0.00
15	PT	Acetone	100.0000	87.3752	12.62	83	0.00
16	T	Iodomethane	20.0000	18.2145	8.93	100	0.00
17	PT	Carbon Dislf	20.0000	22.1977	-10.99	110	0.00
18	T	allylchloride	20.0000	20.9087	-4.54	107	0.00
19	PT	methylacetate	10.0000	10.7746	-7.75	115	0.00
20	PT	Methylchlorid	10.0000	9.9906	0.09	108	0.00
21	T	tbutylalcohol	500.0000	576.1297	-15.23	123	0.00
22	T	Acrylonitrile	50.0000	52.4715	-4.94	112	0.00
23	PT	t12dichlorte	10.0000	10.4171	-4.17	107	0.00
24	PT	MtBE	10.0000	10.4510	-4.51	109	0.00
25	T	Hexane	20.0000	20.2728	-1.36	106	0.00
26	PT	11dichlorota	10.0000	10.1809	-1.81	106	0.00
27	T	Vinylacetate	100.0000	106.4178	-6.42	111	0.00
28	T	chloroprene	20.0000	21.5099	-7.55	105	0.00
29	T	Diisopether	10.0000	10.7018	-7.02	108	0.00
30	T	ETBE	10.0000	10.6254	-6.25	111	0.00
31	T	22dichloropr	10.0000	10.0259	-0.26	104	0.00
32	PT	c12dichlorte	10.0000	9.8907	1.09	105	0.00
33	PT	2Butanone	100.0000	99.9738	0.03	102	0.00
34	T	propionitrile	100.0000	106.5172	-6.52	115	0.00
35	T	Ethylacetate	50.0000	50.8012	-1.60	112	0.00
36	T	methacrylonitrile	20.0000	20.4906	-2.45	111	0.00
37	T	Bromochlorma	10.0000	10.2730	-2.73	112	0.00
38	T	Tetrahydofur	100.0000	107.0407	-7.04	115	0.00
39	PT	Chloroform	10.0000	10.1611	-1.61	107	0.00
40	PT	111trichlota	10.0000	10.5689	-5.69	106	0.00
41	S	SURRDibrflma	20.0000	20.2368	-1.18	105	0.00
42	PT	Cyclohexane	10.0000	11.1865	-11.87	107	0.00
43	PT	Carbtetraclo	10.0000	10.3760	-3.76	106	0.00
44	T	11dicloprope	10.0000	10.3609	-3.61	108	0.00
45	S	SURR12DCAd4	20.0000	19.9198	0.40	102	0.00
46	PT	Benzene	10.0000	10.2934	-2.93	105	0.00
47	PT	12dichlorota	10.0000	10.1329	-1.33	107	0.00
48	T	TAME	10.0000	10.4107	-4.11	110	0.00

49	PT	trichloroete	10.0000	10.0133	-0.13	103	0.00
50	PT	methylcyclohexane	10.0000	9.9685	0.31	105	0.00
51	PT	12dicloropra	10.0000	10.2579	-2.58	111	0.00
52	T	23Dicl1propene	10.0000	10.5842	-5.84	111	0.00
53	T	Dibromometha	10.0000	10.0701	-0.70	106	0.00
54	T	methylmethacrylate	10.0000	10.7968	-7.97	113	0.00
55	T	14dioxane	500.0000	548.0753	-9.62	118	0.00
56	PT	Bromodiclrma	10.0000	10.1881	-1.88	107	0.00
57	T	2Nitropropane	100.0000	91.7450	8.25	116	0.00
58	T	2CLEVE	50.0000	53.8253	-7.65	130	0.00
59	PT	c13dicloproe	10.0000	10.4119	-4.12	107	0.00
60	PT	4Meth2Pentan	100.0000	107.5498	-7.55	113	0.00
61	S	SURRd8Tolule	20.0000	19.9224	0.39	103	0.00
62	PT	Toluene	10.0000	10.3012	-3.01	107	0.00
63	PT	t13Dicloprop	10.0000	10.4745	-4.75	109	0.00
64	T	ethylmethacrylate	20.0000	21.9381	-9.69	113	0.00
65	PT	112Triclotha	10.0000	10.3139	-3.14	108	0.00
66	PT	Tetrachlorte	10.0000	10.2988	-2.99	106	0.00
67	T	13Diclorpropa	10.0000	10.1699	-1.70	107	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	104	0.00
69	PT	2Hexanone	100.0000	108.2053	-8.21	106	0.00
70	PT	Clorodibrmta	10.0000	10.5442	-5.44	116	0.00
71	PT	12Dibrometha	10.0000	10.1734	-1.73	108	0.00
72	PT	Chlorobenzen	10.0000	9.9344	0.66	105	0.00
73	T	1Clhexane	10.0000	10.2695	-2.70	105	0.00
74	T	1112Tetclota	10.0000	10.1099	-1.10	106	0.00
75	PT	Ethylbenzene	10.0000	10.5102	-5.10	107	0.00
76	PT	m p-Xylene	20.0000	21.4210	-7.10	108	0.00
77	PT	o-Xylene	10.0000	10.4829	-4.83	108	0.00
78	PT	Styrene	10.0000	10.5229	-5.23	107	0.00
79	PT	Bromoform	10.0000	9.9046	0.95	112	0.00
80	PT	Isopropylben	10.0000	10.6809	-6.81	106	0.00
81	T	cyclohexanone	200.0000	184.2826	7.86	92	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	104	0.00
83	S	SURR4BrFBenz	20.0000	20.0959	-0.48	103	0.00
84	T	Bromobenzene	10.0000	9.9980	0.02	105	0.00
85	PT	1122Tetrclta	10.0000	10.3315	-3.32	111	0.00
86	T	123Triclproa	10.0000	10.3873	-3.87	114	0.00
87	T	14dichloro2butene	10.0000	10.8713	-8.71	119	0.00
88	T	n-Propylbenz	10.0000	10.5401	-5.40	104	0.00
89	T	2chlorotolue	10.0000	10.1315	-1.32	106	0.00
90	T	4chlorotolue	10.0000	10.3775	-3.77	105	0.00
91	T	135Trimebenz	10.0000	10.6614	-6.61	105	0.00
92	T	tbutylbenzen	10.0000	10.6258	-6.26	106	0.00
93	T	124Trimetben	10.0000	10.4924	-4.92	105	0.00
94	T	sbutylbenzen	10.0000	10.8441	-8.44	105	0.00
95	PT	13Diclorbenz	10.0000	10.3803	-3.80	108	0.00
96	T	pIsopropylto	10.0000	10.8346	-8.35	106	0.00
97	PT	14dichlorobe	10.0000	10.2398	-2.40	109	0.00
98	PT	12dichlorobe	10.0000	10.0277	-0.28	106	0.00
99	T	nButylbenzen	10.0000	10.5393	-5.39	105	0.00
100	PT	12dibromo3cl	10.0000	10.3898	-3.90	125	0.00
101	T	135Trichlorobenzene	10.0000	10.3847	-3.85	111	0.00
102	PT	124Trichlobe	10.0000	10.5698	-5.70	113	0.00
103	T	Hexachlorobu	10.0000	10.3323	-3.32	107	0.00
104	T	Naphthalene	10.0000	9.6751	3.25	123	0.00
105	T	123Trichlben	10.0000	10.6680	-6.68	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W071823.M Wed Jul 19 07:33:00 2023

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV1.D Vial: 14
Acq On : 18 Jul 2023 15:51 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:17:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1080727	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	807338	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	401463	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	277879	20.237	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	75140	19.920	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.71	98	1052571	19.922	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.25	95	412122	20.096	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	88623	11.3075	ug/L	99
3) Chloromethan	2.11	50	100593	9.6553	ug/L	99
4) VinylChlorid	2.24	62	104130	10.5270	ug/L	100
5) Bromomethane	2.70	94	73809	11.6873	ug/L	100
6) Chloroethane	2.87	64	66035	10.2940	ug/L	98
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	181554	10.7479	ug/L	99
9) Ethylether	3.71	59	108405	10.0951	ug/L	97
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	239655	102.9030	ug/L	98
12) Acrolein	3.84	56	137587	53.1681	ug/L	96
13) 11dichlorthe	3.99	96	105250	10.6012	ug/L	99
14) Trichlorotfluoroeth	4.03	101	241983	22.2880	ug/L	99
15) Acetone	4.05	43	492278	87.3752	ug/L	99
16) Iodomethane	4.17	142	229557	18.2145	ug/L	98
17) Carbon Dislf	4.25	76	586566	22.1977	ug/L	99
18) allylchloride	4.48	41	355423	20.9087	ug/L	98
19) methylacetate	4.53	74	37462	10.7746	ug/L	95
20) Methylchlorid	4.63	84	114509	9.9906	ug/L	97
21) tbutylalcohol	4.83	59	703765	576.1297	ug/L	100
22) Acrylonitrile	4.93	53	274639	52.4715	ug/L	96
23) t12dichlorte	5.00	96	117203	10.4171	ug/L	99
24) MtBE	5.04	73	338814	10.4510	ug/L	100
25) Hexane	5.40	57	388367	20.2728	ug/L	99
26) 11dichlorota	5.53	63	211783	10.1809	ug/L	99
27) Vinylacetate	5.62	43	2468970	106.4178	ug/L	99
28) chloroprene	5.67	53	415864	21.5099	ug/L	99
29) Diisopether	5.68	45	402237	10.7018	ug/L	98
30) ETBE	6.13	59	370496	10.6254	ug/L	99
31) 22dichloropr	6.27	77	160263	10.0259	ug/L	98
32) c12dichlorte	6.27	96	125579	9.8907	ug/L	97
33) 2Butanone	6.28	72	189077	99.9738	ug/L	98
34) propionitrile	6.32	54	233692	106.5172	ug/L	97
35) Ethylacetate	6.39	88	29330	50.8012	ug/L #	91
36) methacrylonitrile	6.53	67	111746	20.4906	ug/L	96
37) Bromochlorma	6.55	128	58774	10.2730	ug/L	94
38) Tetrahydofur	6.63	42	458614	107.0407	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV1.D Vial: 14
Acq On : 18 Jul 2023 15:51 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:17:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	204255	10.1611 ug/L	100
40)	111trichlota	6.91	97	178968	10.5689 ug/L	97
42)	Cyclohexane	6.99	56	234895	11.1865 ug/L	99
43)	Carbtetraclo	7.12	119	136813	10.3760 ug/L	100
44)	11dicloprope	7.11	110	59203	10.3609 ug/L	97
46)	Benzene	7.36	78	475241	10.2934 ug/L	99
47)	12dichlorota	7.36	62	171057	10.1329 ug/L	99
48)	TAME	7.53	73	323590	10.4107 ug/L	97
49)	trichloroete	8.17	95	122400	10.0133 ug/L	98
50)	methylcyclohexane	8.43	83	244855	9.9685 ug/L	99
51)	12dicloropra	8.42	63	131973	10.2579 ug/L	95
52)	23Dicl1propene	8.49	75	197300	10.5842 ug/L	98
53)	Dibromometha	8.56	93	71218	10.0701 ug/L	97
54)	methylmethacrylate	8.59	69	98514	10.7968 ug/L	100
55)	14dioxane	8.60	88	97144	548.0753 ug/L	99
56)	Bromodiclrma	8.77	83	146021	10.1881 ug/L	96
57)	2Nitropropane	9.03	43	305016	91.7450 ug/L	99
58)	2CLEVE	9.15	63	231780	53.8253 ug/L	99
59)	c13dicloproe	9.34	75	185208	10.4119 ug/L	99
60)	4Meth2Pentan	9.54	43	1243697	107.5498 ug/L	99
62)	Toluene	9.79	92	310475	10.3012 ug/L	98
63)	t13Dicloprop	10.05	75	156283	10.4745 ug/L	97
64)	ethylmethacrylate	10.20	69	329913	21.9381 ug/L	97
65)	112Triclotha	10.29	83	92236	10.3139 ug/L	99
66)	Tetrachlorte	10.53	166	136344	10.2988 ug/L	98
67)	13Diclorpropa	10.51	76	196211	10.1699 ug/L	100
69)	2Hexanone	10.63	43	918472	108.2053 ug/L	100
70)	Clorodibrmta	10.81	129	106255	10.5442 ug/L	97
71)	12Dibrometha	10.97	107	110734	10.1734 ug/L	99
72)	Chlorobenzen	11.65	112	318171	9.9344 ug/L	98
73)	1Clhexane	11.63	91	170590	10.2695 ug/L	100
74)	1112Tetclota	11.76	131	101227	10.1099 ug/L	97
75)	Ethylbenzene	11.82	91	566192	10.5102 ug/L	99
76)	m p-Xylene	11.98	106	441125	21.4210 ug/L	94
77)	o-Xylene	12.53	106	211051	10.4829 ug/L	98
78)	Styrene	12.54	104	340166	10.5229 ug/L	98
79)	Bromoform	12.77	173	62521	9.9046 ug/L	96
80)	Isopropylben	13.05	105	530648	10.6809 ug/L	100
81)	cyclohexanone	13.13	55	342171	184.2826 ug/L	98
84)	Bromobenzene	13.47	156	132559	9.9980 ug/L	97
85)	1122Tetrclta	13.43	83	146737	10.3315 ug/L	100
86)	123Triclproa	13.50	75	181572	10.3873 ug/L	96
87)	14dichloro2butene	13.52	53	40852	10.8713 ug/L	95
88)	n-Propylbenz	13.64	91	598436	10.5401 ug/L	100
89)	2chlorotolue	13.75	91	363703	10.1315 ug/L	100
90)	4chlorotolue	13.90	91	419554	10.3775 ug/L	99
91)	135Trimebenz	13.90	105	432088	10.6614 ug/L	99
92)	tbutylbenzen	14.37	119	370246	10.6258 ug/L	99
93)	124Trimetben	14.43	105	415854	10.4924 ug/L	98
94)	sbutylbenzen	14.68	105	514436	10.8441 ug/L	98
95)	13Diclorbenz	14.82	146	242764	10.3803 ug/L	98
96)	pIsopropylto	14.90	119	441972	10.8346 ug/L	99
97)	14dichlorobe	14.95	146	246947	10.2398 ug/L	97
98)	12dichlorobe	15.49	146	229296	10.0277 ug/L	99
99)	nButylbenzen	15.50	91	376322	10.5393 ug/L	100
100)	12dibromo3cl	16.58	157	26630	10.3898 ug/L	96
101)	135Trichlorobenzene	16.91	180	166261	10.3847 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV1.D Vial: 14
Acq On : 18 Jul 2023 15:51 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:17:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	134267	10.5698	ug/L	98
103) Hexachlorobu	17.97	225	57638	10.3323	ug/L	97
104) Naphthalene	18.02	128	273866	9.6751	ug/L	99
105) 123Trichlben	18.33	180	118862	10.6680	ug/L	98

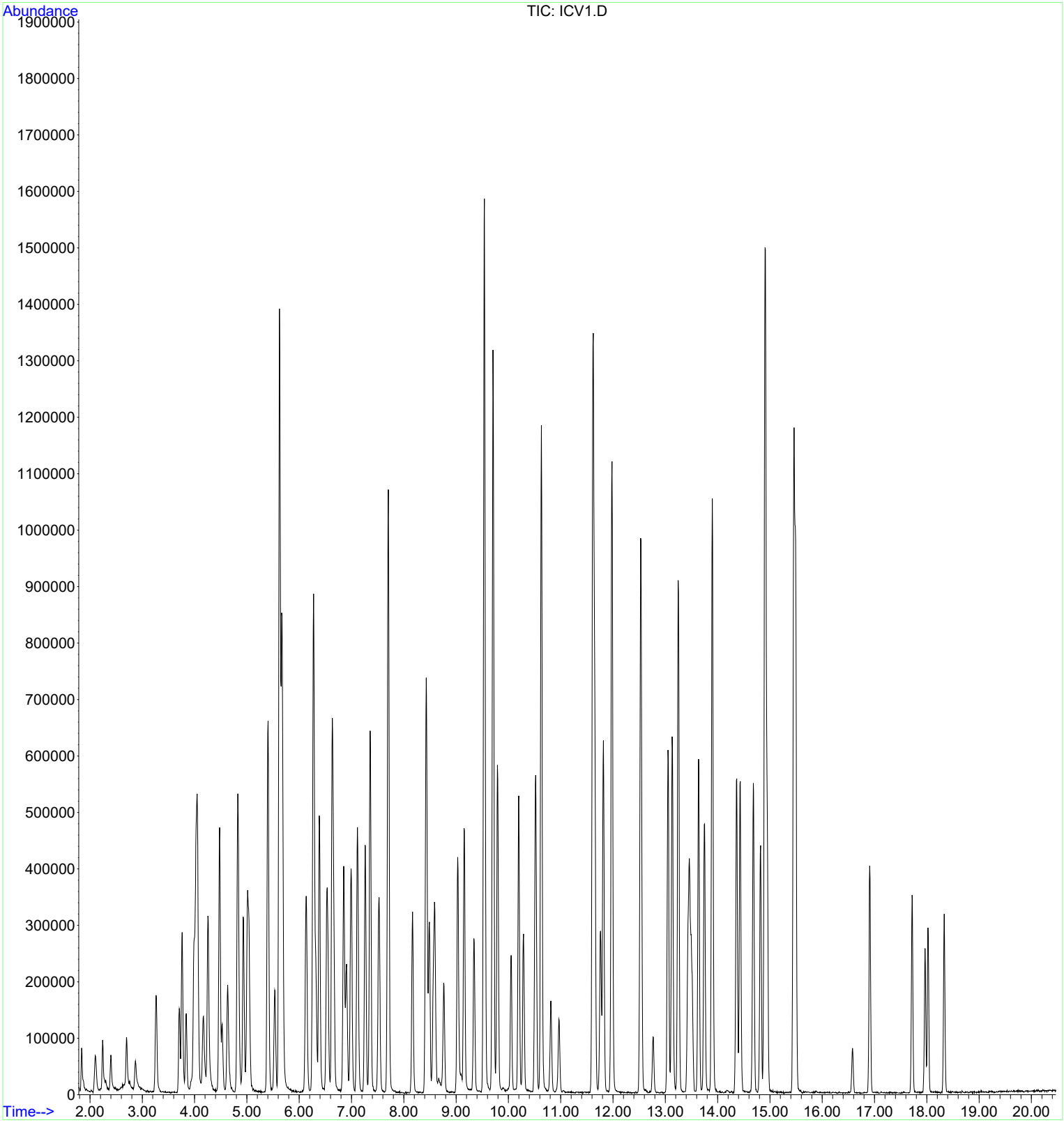
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV1.D Vial: 14
Acq On : 18 Jul 2023 15:51 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:17:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV2.D Vial: 15
Acq On : 18 Jul 2023 16:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 19 07:18:30 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00
2	PT	Dichlorodi	30.0000	34.1593	-13.86	106	0.00
3	PT	Chloromethan	30.0000	28.0971	6.34	103	0.00
4	PT	VinylChlorid	30.0000	31.2616	-4.21	103	0.00
5	PT	Bromomethane	30.0000	33.3532	-11.18	112	0.00
6	PT	Chloroethane	30.0000	30.9072	-3.02	104	0.00
7	T	Dichloroflmethane	30.0000	0.0000	100.00#	0	-3.18#
8	PT	Trichlorofma	30.0000	31.2381	-4.13	100	0.00
9	T	Ethylether	30.0000	29.6521	1.16	101	0.00
10	T	dichlorotfluoroethan	30.0000	0.0000	100.00#	0	-3.72#
11	T	propyleneoxide	300.0000	289.7219	3.43	98	0.00
12	T	Acrolein	150.0000	144.9406	3.37	99	0.00
13	PT	11dichlorthe	30.0000	31.7869	-5.96	100	0.00
14	PT	Trichlorotfluoroeth	60.0000	65.6214	-9.37	103	0.00
15	PT	Acetone	300.0000	247.3190	17.56	92	0.00
16	T	Iodomethane	60.0000	61.7060	-2.84	103	0.00
17	PT	Carbon Dislf	60.0000	63.6481	-6.08	106	0.00
18	T	allylchloride	60.0000	61.0220	-1.70	102	0.00
19	PT	methylacetate	30.0000	30.5995	-2.00	103	0.00
20	PT	Methylchlorid	30.0000	29.9158	0.28	101	0.00
21	T	tbutylalcohol	1500.0000	1491.8496	0.54	100	0.00
22	T	Acrylonitrile	150.0000	143.1326	4.58	99	0.00
23	PT	t12dichlorte	30.0000	29.9950	0.02	102	0.00
24	PT	MtBE	30.0000	29.8831	0.39	103	0.00
25	T	Hexane	60.0000	60.3256	-0.54	102	0.00
26	PT	11dichlorota	30.0000	29.2293	2.57	102	0.00
27	T	Vinylacetate	300.0000	296.7307	1.09	101	0.00
28	T	chloroprene	60.0000	61.7882	-2.98	103	0.00
29	T	Diisopether	30.0000	29.9174	0.28	103	0.00
30	T	ETBE	30.0000	30.4006	-1.34	103	0.00
31	T	22dichloropr	30.0000	30.1458	-0.49	99	0.00
32	PT	c12dichlorte	30.0000	28.8638	3.79	99	0.00
33	PT	2Butanone	300.0000	269.1353	10.29	96	0.00
34	T	propionitrile	300.0000	288.0720	3.98	98	0.00
35	T	Ethylacetate	150.0000	149.4485	0.37	100	0.00
36	T	methacrylonitrile	60.0000	60.2085	-0.35	99	0.00
37	T	Bromochlorma	30.0000	29.8524	0.49	102	0.00
38	T	Tetrahydofur	300.0000	276.1225	7.96	97	0.00
39	PT	Chloroform	30.0000	29.1249	2.92	100	0.00
40	PT	111trichlota	30.0000	31.3869	-4.62	101	0.00
41	S	SURRDibrflma	20.0000	20.3552	-1.78	99	0.00
42	PT	Cyclohexane	30.0000	33.3880	-11.29	105	0.00
43	PT	Carbtetraclo	30.0000	33.3332	-11.11	103	0.00
44	T	11dicloprope	30.0000	32.1174	-7.06	102	0.00
45	S	SURR12DCAd4	20.0000	20.2337	-1.17	104	0.00
46	PT	Benzene	30.0000	28.8435	3.86	101	0.00
47	PT	12dichlorota	30.0000	28.5340	4.89	99	0.00
48	T	TAME	30.0000	30.4651	-1.55	103	0.00

49	PT	trichloroete	30.0000	29.7393	0.87	101	0.00
50	PT	methylcyclohexane	30.0000	30.2349	-0.78	102	0.00
51	PT	12dicloropra	30.0000	29.6821	1.06	101	0.00
52	T	23Dicl1propene	30.0000	30.8417	-2.81	101	0.00
53	T	Dibromometha	30.0000	30.2422	-0.81	101	0.00
54	T	methylmethacrylate	30.0000	31.7058	-5.69	99	0.00
55	T	14dioxane	1500.0000	1464.2968	2.38	96	0.00
56	PT	Bromodiclrma	30.0000	30.6373	-2.12	99	0.00
57	T	2Nitropropane	300.0000	283.7146	5.43	96	0.00
58	T	2CLEVE	150.0000	160.3929	-6.93	102	0.00
59	PT	c13dicloproe	30.0000	31.3221	-4.41	99	0.00
60	PT	4Meth2Pentan	300.0000	254.0065	15.33	99	0.00
61	S	SURRd8Tolule	20.0000	20.0622	-0.31	101	0.00
62	PT	Toluene	30.0000	28.9204	3.60	100	0.00
63	PT	t13Dicloprop	30.0000	32.0867	-6.96	100	0.00
64	T	ethylmethacrylate	60.0000	62.1730	-3.62	101	0.00
65	PT	112Triclotha	30.0000	29.1391	2.87	97	0.00
66	PT	Tetrachlorte	30.0000	30.7216	-2.41	101	0.00
67	T	13Diclorpropa	30.0000	29.0416	3.19	100	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00
69	PT	2Hexanone	300.0000	263.9905	12.00	97	0.00
70	PT	Clorodibrmta	30.0000	32.3015	-7.67	101	0.00
71	PT	12Dibrometha	30.0000	29.6620	1.13	99	0.00
72	PT	Chlorobenzen	30.0000	28.3651	5.45	100	0.00
73	T	1Clhexane	30.0000	31.1375	-3.79	104	0.00
74	T	1112Tetclota	30.0000	31.4461	-4.82	100	0.00
75	PT	Ethylbenzene	30.0000	28.6563	4.48	100	0.00
76	PT	m p-Xylene	60.0000	59.3045	1.16	101	0.00
77	PT	o-Xylene	30.0000	30.0168	-0.06	100	0.00
78	PT	Styrene	30.0000	30.2387	-0.80	100	0.00
79	PT	Bromoform	30.0000	29.1442	2.85	100	0.00
80	PT	Isopropylben	30.0000	29.8011	0.66	100	0.00
81	T	cyclohexanone	600.0000	480.9095	19.85	86	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	101	0.00
83	S	SURR4BrFBenz	20.0000	19.9531	0.23	101	0.00
84	T	Bromobenzene	30.0000	29.1099	2.97	101	0.00
85	PT	1122Tetrclta	30.0000	28.3694	5.44	98	0.00
86	T	123Triclproa	30.0000	29.6120	1.29	100	0.00
87	T	14dichloro2butene	30.0000	33.0838	-10.28	101	0.00
88	T	n-Propylbenz	30.0000	28.9936	3.35	101	0.00
89	T	2chlorotolue	30.0000	28.4877	5.04	100	0.00
90	T	4chlorotolue	30.0000	28.9987	3.34	100	0.00
91	T	135Trimebenz	30.0000	29.7210	0.93	100	0.00
92	T	tbutylbenzen	30.0000	30.2193	-0.73	101	0.00
93	T	124Trimetben	30.0000	29.3670	2.11	100	0.00
94	T	sbutylbenzen	30.0000	30.0153	-0.05	101	0.00
95	PT	13Diclorbenz	30.0000	29.1205	2.93	100	0.00
96	T	pIsopropylto	30.0000	30.3017	-1.01	100	0.00
97	PT	14dichlorobe	30.0000	28.8017	3.99	99	0.00
98	PT	12dichlorobe	30.0000	28.4897	5.03	100	0.00
99	T	nButylbenzen	30.0000	30.5703	-1.90	101	0.00
100	PT	12dibromo3cl	30.0000	31.3816	-4.61	97	0.00
101	T	135Trichlorobenzene	30.0000	30.6681	-2.23	104	0.00
102	PT	124Trichlobe	30.0000	31.6288	-5.43	100	0.00
103	T	Hexachlorobu	30.0000	31.0603	-3.53	102	0.00
104	T	Naphthalene	30.0000	27.4451	8.52	95	0.00
105	T	123Trichlben	30.0000	31.2789	-4.26	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W071823.M Wed Jul 19 07:31:46 2023

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV2.D Vial: 15
Acq On : 18 Jul 2023 16:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:18:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1085714	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	810064	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	408367	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	280795	20.355	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.27	102	76676	20.234	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1064850	20.062	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.25	95	416229	19.953	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	268961	34.1593	ug/L	99
3) Chloromethan	2.10	50	294077	28.0971	ug/L	99
4) VinylChlorid	2.24	62	310658	31.2616	ug/L	98
5) Bromomethane	2.70	94	189908	33.3532	ug/L	96
6) Chloroethane	2.87	64	199181	30.9072	ug/L	98
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	530113	31.2381	ug/L	99
9) Ethylether	3.71	59	319885	29.6521	ug/L	96
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	677859	289.7219	ug/L	97
12) Acrolein	3.84	56	376804	144.9406	ug/L	98
13) 11dichlorthe	3.99	96	317042	31.7869	ug/L	98
14) Trichlorotfluoroeth	4.03	101	715746	65.6214	ug/L	99
15) Acetone	4.05	43	1325231	247.3190	ug/L	96
16) Iodomethane	4.17	142	831080	61.7060	ug/L	98
17) Carbon Dislf	4.25	76	1689639	63.6481	ug/L	98
18) allylchloride	4.48	41	1042088	61.0220	ug/L	97
19) methylacetate	4.52	74	106882	30.5995	ug/L	99
20) Methylchlorid	4.63	84	332549	29.9158	ug/L	97
21) tbutylalcohol	4.83	59	1830762	1491.8496	ug/L	98
22) Acrylonitrile	4.93	53	752622	143.1326	ug/L	97
23) t12dichlorte	5.01	96	339032	29.9950	ug/L	100
24) MtBE	5.03	73	973260	29.8831	ug/L	98
25) Hexane	5.40	57	1120877	60.3256	ug/L	98
26) 11dichlorota	5.53	63	610836	29.2293	ug/L	98
27) Vinylacetate	5.62	43	5573538	296.7307	ug/L	91
28) chloroprene	5.67	53	1200099	61.7882	ug/L	97
29) Diisopether	5.68	45	1129660	29.9174	ug/L	98
30) ETBE	6.13	59	1064929	30.4006	ug/L	98
31) 22dichloropr	6.27	77	484102	30.1458	ug/L	99
32) c12dichlorte	6.27	96	368166	28.8638	ug/L	99
33) 2Butanone	6.28	72	511355	269.1353	ug/L	99
34) propionitrile	6.32	54	634928	288.0720	ug/L	99
35) Ethylacetate	6.38	88	86682	149.4485	ug/L	95
36) methacrylonitrile	6.53	67	329864	60.2085	ug/L	96
37) Bromochlorma	6.55	128	171580	29.8524	ug/L	94
38) Tetrahydofur	6.63	42	1188501	276.1225	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV2.D Vial: 15
Acq On : 18 Jul 2023 16:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:18:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.66	83	588162	29.1249	ug/L	99
40) 111trichlota	6.91	97	533940	31.3869	ug/L	100
42) Cyclohexane	6.99	56	704322	33.3880	ug/L	99
43) Carbtetraclo	7.12	119	441546	33.3332	ug/L	99
44) 11dicloprope	7.11	110	184368	32.1174	ug/L	93
46) Benzene	7.36	78	1337841	28.8435	ug/L	98
47) 12dichlorota	7.36	62	483915	28.5340	ug/L	99
48) TAME	7.53	73	951302	30.4651	ug/L	96
49) trichloroete	8.17	95	365204	29.7393	ug/L	96
50) methylcyclohexane	8.43	83	737420	30.2349	ug/L	98
51) 12dicloropra	8.43	63	383636	29.6821	ug/L	93
52) 23Dicl1propene	8.49	75	577575	30.8417	ug/L	97
53) Dibromometha	8.56	93	214867	30.2422	ug/L	97
54) methylmethacrylate	8.59	69	290630	31.7058	ug/L	98
55) 14dioxane	8.60	88	260738	1464.2968	ug/L	99
56) Bromodiclrma	8.77	83	441134	30.6373	ug/L	97
57) 2Nitropropane	9.03	43	1011727	283.7146	ug/L	97
58) 2CLEVE	9.15	63	693864	160.3929	ug/L	98
59) c13dicloproe	9.34	75	559733	31.3221	ug/L	97
60) 4Meth2Pentan	9.54	43	2950865	254.0065	ug/L	93
62) Toluene	9.79	92	875675	28.9204	ug/L	96
63) t13Dicloprop	10.05	75	480954	32.0867	ug/L	96
64) ethylmethacrylate	10.20	69	939296	62.1730	ug/L	99
65) 112Triclotha	10.28	83	261789	29.1391	ug/L	99
66) Tetrachlorte	10.53	166	408596	30.7216	ug/L	99
67) 13Diclorpropa	10.51	76	562893	29.0416	ug/L	98
69) 2Hexanone	10.63	43	2248380	263.9905	ug/L	95
70) Clorodibrmta	10.82	129	326604	32.3015	ug/L	98
71) 12Dibrometha	10.97	107	323951	29.6620	ug/L	97
72) Chlorobenzen	11.65	112	911521	28.3651	ug/L	99
73) 1Clhexane	11.63	91	518981	31.1375	ug/L	95
74) 1112Tetclota	11.76	131	315922	31.4461	ug/L	98
75) Ethylbenzene	11.82	91	1548952	28.6563	ug/L	98
76) m p-Xylene	11.98	106	1225388	59.3045	ug/L	89
77) o-Xylene	12.53	106	606365	30.0168	ug/L	94
78) Styrene	12.54	104	980801	30.2387	ug/L	99
79) Bromoform	12.77	173	201128	29.1442	ug/L	93
80) Isopropylben	13.05	105	1485578	29.8011	ug/L	98
81) cyclohexanone	13.13	55	895955	480.9095	ug/L	100
84) Bromobenzene	13.46	156	392594	29.1099	ug/L	98
85) 1122Tetrclta	13.43	83	409856	28.3694	ug/L	99
86) 123Triclproa	13.50	75	526523	29.6120	ug/L	96
87) 14dichloro2butene	13.52	53	126460	33.0838	ug/L	89
88) n-Propylbenz	13.64	91	1674481	28.9936	ug/L	96
89) 2chlorotolue	13.75	91	1040250	28.4877	ug/L	97
90) 4chlorotolue	13.90	91	1192563	28.9987	ug/L	98
91) 135Trimebenz	13.90	105	1225256	29.7210	ug/L	95
92) tbutylbenzen	14.37	119	1071070	30.2193	ug/L	98
93) 124Trimetben	14.43	105	1183943	29.3670	ug/L	95
94) sbutylbenzen	14.68	105	1448384	30.0153	ug/L	95
95) 13Diclorbenz	14.82	146	692753	29.1205	ug/L	98
96) pIsopropylto	14.90	119	1257341	30.3017	ug/L	96
97) 14dichlorobe	14.95	146	706537	28.8017	ug/L	98
98) 12dichlorobe	15.49	146	662654	28.4897	ug/L	99
99) nButylbenzen	15.49	91	1110332	30.5703	ug/L	98
100) 12dibromo3cl	16.58	157	81817	31.3816	ug/L	99
101) 135Trichlorobenzene	16.91	180	499447	30.6681	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV2.D Vial: 15
Acq On : 18 Jul 2023 16:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:18:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	408685	31.6288	ug/L	97
103) Hexachlorobu	17.97	225	176248	31.0603	ug/L	96
104) Naphthalene	18.02	128	819327	27.4451	ug/L	99
105) 123Trichlben	18.33	180	354500	31.2789	ug/L	98

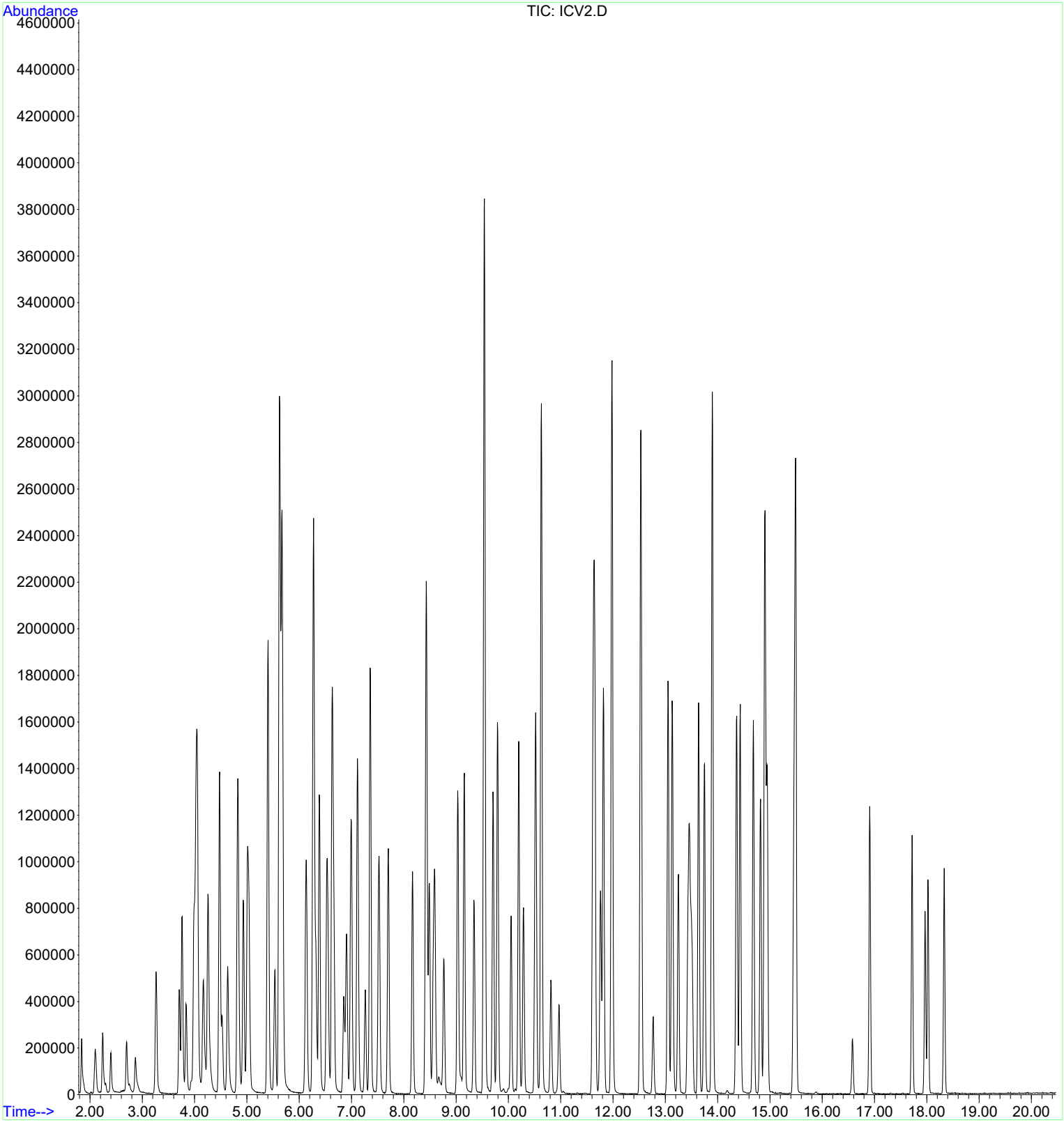
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\ICV2.D Vial: 15
Acq On : 18 Jul 2023 16:20 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:18:30 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\MB-ICB1.D Vial: 18
Acq On : 18 Jul 2023 17:47 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:21:28 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1052858	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	771829	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	374977	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	262156	19.597	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98	%		
45) SURR12DCAd4	7.27	102	73919	20.115	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1021426	19.845	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99	%		
83) SURR4BrFBenz	13.25	95	383995	20.047	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	3129	Below	Cal #	44
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	2501	N.D.		
21) tbutylalcohol	4.84	59	3659	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	0.00	42	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\MB-ICB1.D Vial: 18
Acq On : 18 Jul 2023 17:47 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:21:28 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.54	43	5025	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.64	43	5571	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.13	55	6893	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.47	91	3310	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\MB-ICB1.D Vial: 18
Acq On : 18 Jul 2023 17:47 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:21:28 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	18.02	128	4339	1.0959	ug/L #	74
105) 123Trichlben	0.00	180	0	N.D.		

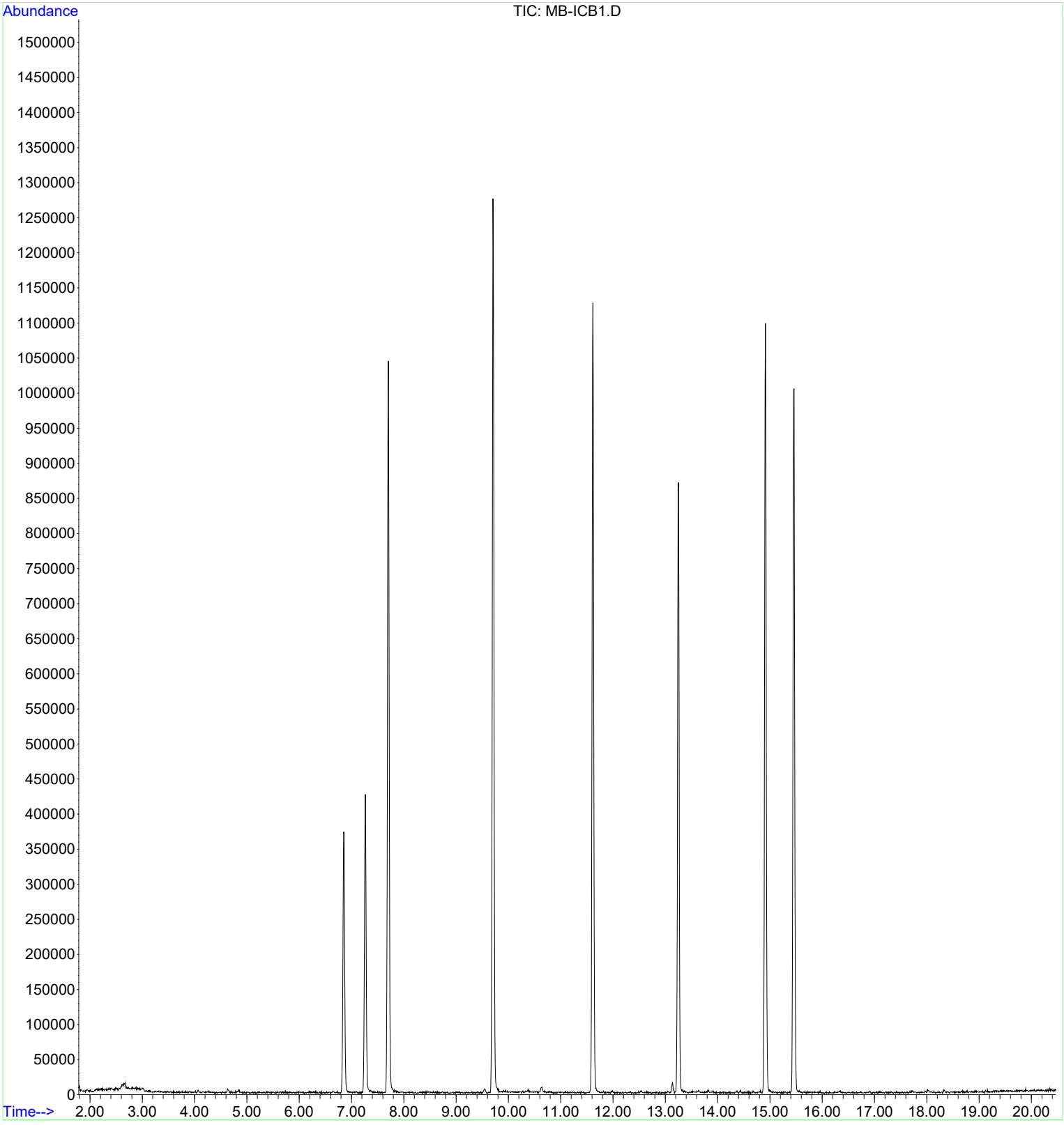
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL1823\MB-ICB1.D Vial: 18
Acq On : 18 Jul 2023 17:47 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 19 07:21:28 2023 Results File: W071823.RES

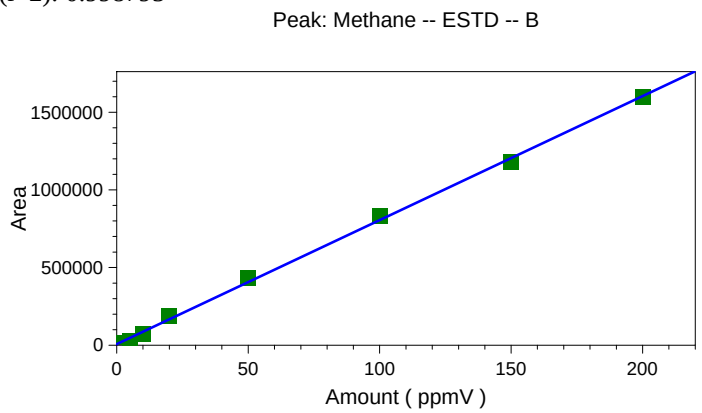
Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG071323.met
Print Time: Jul 13, 2023 11:58:38
User: DGS
Instrument: PVOC4

Methane (B)
Average RF: 7585.15 RF StDev: 1375.10 RF %RSD: 18.1289
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 7986.15x + 7483.58
Goodness of fit (r^2): 0.998795



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	11081	27616	74766	185299	432671
RF	5540.5	5523.2	7476.6	9264.95	8653.42
Last Area					
Residual	1.54954	2.47908	1.57511	-2.26548	-3.2406
Rep StDev					
Rep %RSD					
Rep 1 Area	11081	27616	74766	185299	432671
Rep 1 User	DGS	DGS	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\071323\002.dat	C:\Instarch\PVOC4\Data\071323\003.dat	C:\Instarch\PVOC4\Data\071323\004.dat	C:\Instarch\PVOC4\Data\071323\005.dat	C:\Instarch\PVOC4\Data\071323\006.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 13, 2023 09:29:16	Jul 13, 2023 09:46:29	Jul 13, 2023 09:51:02	Jul 13, 2023 09:55:24	Jul 13, 2023 10:01:52

	Level 6	Level 7	Level 8
Amount	100	150	200
Area	833654	1181541	1601803
RF	8336.54	7876.94	8009.015

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG071323.met
Print Time: Jul 13, 2023 11:58:38
User: DGS
Instrument: PVOC4

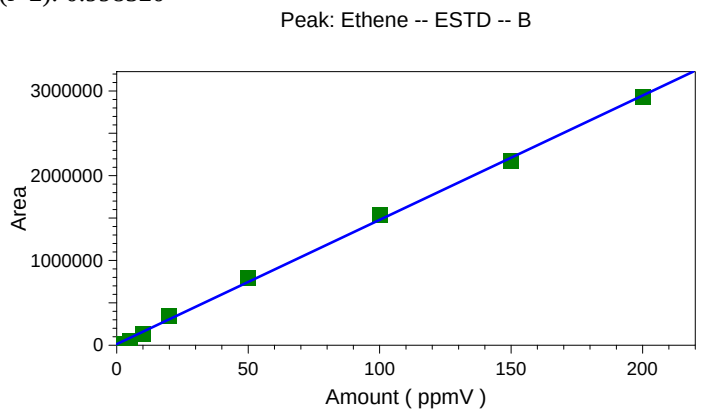
Last Area			
Residual	-3.45041	2.9883	0.364446
Rep StDev			
Rep %RSD			
Rep 1 Area	833654	1181541	1601803
Rep 1 User	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\071323\007.dat	C:\Instarch\PVOC4\Data\071323\008.dat	C:\Instarch\PVOC4\Data\071323\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 150 ppmV	MEE PT8 - 200 ppmV
Rep 1 Calib. Time	Jul 13, 2023 10:14:02	Jul 13, 2023 10:36:28	Jul 13, 2023 10:41:09

RD 07/24/2023

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG071323.met
Print Time: Jul 13, 2023 11:58:46
User: DGS
Instrument: PVOC4

Ethene (B)
Average RF: 13462.5 RF StDev: 3297.61 RF %RSD: 24.4947
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 14671.8x + 12291.5
Goodness of fit (r^2): 0.998520



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14964	48494	129009	342724	797184
RF	7482	9698.8	12900.9	17136.2	15943.68
Last Area Residual	1.81785	2.53251	2.04476	-2.52164	-3.49676
Rep StDev					
Rep %RSD					
Rep 1 Area	14964	48494	129009	342724	797184
Rep 1 User	DGS	DGS	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\071323\002.dat	C:\Instarch\PVOC4\Data\071323\003.dat	C:\Instarch\PVOC4\Data\071323\004.dat	C:\Instarch\PVOC4\Data\071323\005.dat	C:\Instarch\PVOC4\Data\071323\006.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 13, 2023 09:29:16	Jul 13, 2023 09:46:29	Jul 13, 2023 09:51:02	Jul 13, 2023 09:55:24	Jul 13, 2023 10:01:52

	Level 6	Level 7	Level 8
Amount	100	150	200
Area	1539666	2170093	2934942

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG071323.met
Print Time: Jul 13, 2023 11:58:46
User: DGS
Instrument: PVOC4

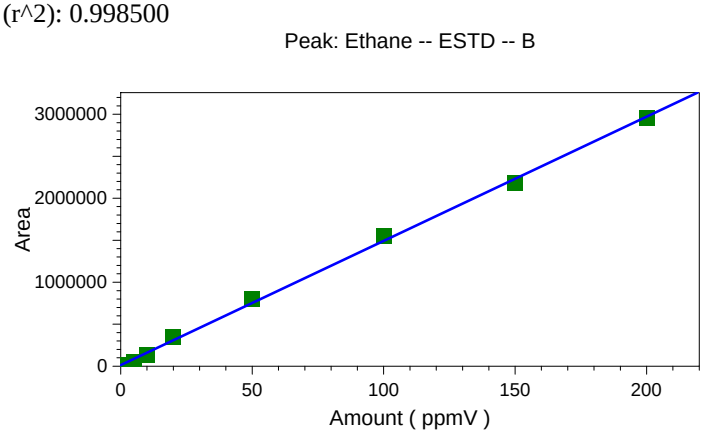
RF	15396.66	14467.2866666667	14674.71
Last Area Residual	-4.1029	2.92841	0.797771
Rep StDev			
Rep %RSD			
Rep 1 Area	1539666	2170093	2934942
Rep 1 User	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\071323\007.dat	C:\Instarch\PVOC4\Data\071323\008.dat	C:\Instarch\PVOC4\Data\071323\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 150 ppmV	MEE PT8 - 200 ppmV
Rep 1 Calib. Time	Jul 13, 2023 10:14:02	Jul 13, 2023 10:36:28	Jul 13, 2023 10:41:09

RD 07/24/2023

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG071323.met
Print Time: Jul 13, 2023 11:58:51
User: DGS
Instrument: PVOC4

Ethane (B)
Average RF: 13554.5 RF StDev: 3329.09 RF %RSD: 24.5608
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 14800.5x + 11759.0
Goodness of fit (r^2): 0.998500



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14889	49009	130417	343494	802511
RF	7444.5	9801.8	13041.7	17174.7	16050.22
Last Area					
Residual	1.78852	2.48319	1.98283	-2.41378	-3.42741
Rep StDev					
Rep %RSD					
Rep 1 Area	14889	49009	130417	343494	802511
Rep 1 User	DGS	DGS	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\071323\002.dat	C:\Instarch\PVOC4\Data\071323\003.dat	C:\Instarch\PVOC4\Data\071323\004.dat	C:\Instarch\PVOC4\Data\071323\005.dat	C:\Instarch\PVOC4\Data\071323\006.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 13, 2023 09:29:16	Jul 13, 2023 09:46:29	Jul 13, 2023 09:51:02	Jul 13, 2023 09:55:24	Jul 13, 2023 10:01:52

	Level 6	Level 7	Level 8
Amount	100	150	200
Area	1554620	2185095	2961902
RF	15546.2	14567.3	14809.51

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG071323.met
Print Time: Jul 13, 2023 11:58:51
User: DGS
Instrument: PVOC4

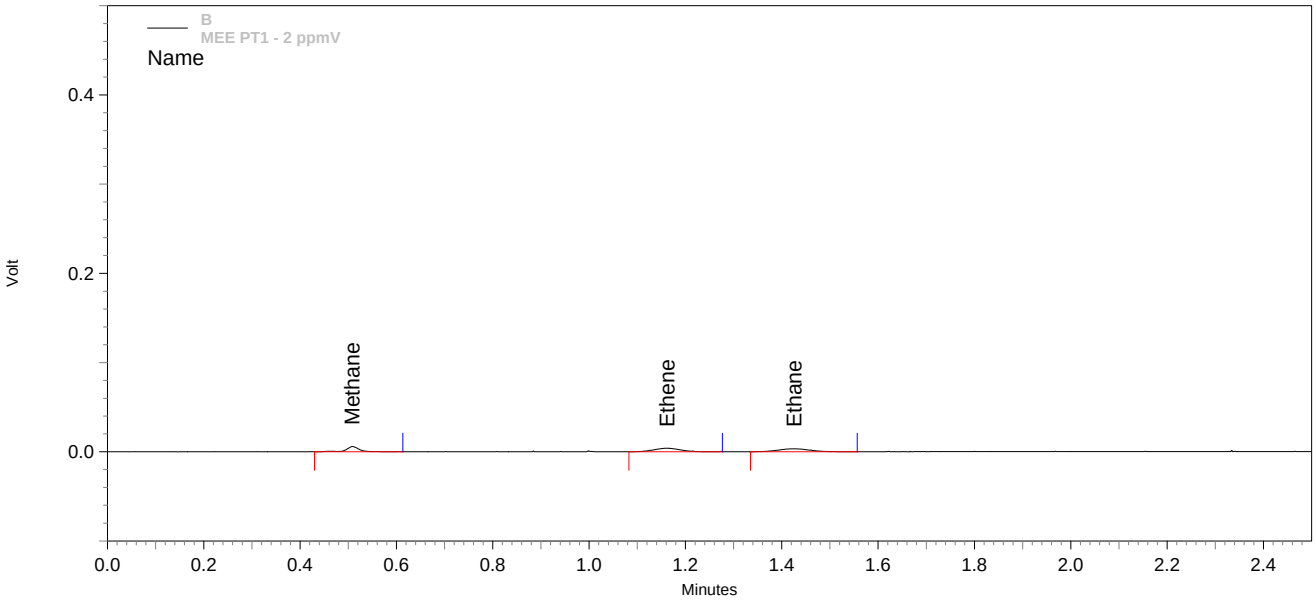
Last Area			
Residual	-4.24389	3.15787	0.672664
Rep StDev			
Rep %RSD			
Rep 1 Area	1554620	2185095	2961902
Rep 1 User	DGS	DGS	DGS
Rep 1 Data File	C:\Instarch\PVOC4\Data\071323\007.dat	C:\Instarch\PVOC4\Data\071323\008.dat	C:\Instarch\PVOC4\Data\071323\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 150 ppmV	MEE PT8 - 200 ppmV
Rep 1 Calib. Time	Jul 13, 2023 10:14:02	Jul 13, 2023 10:36:28	Jul 13, 2023 10:41:09

RD 07/24/2023

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT1 - 2 ppmV
Acquired: Jul 13, 2023 09:25:50
File Desc. 0.01 mL injection (Methane, Ethene, Ethane)



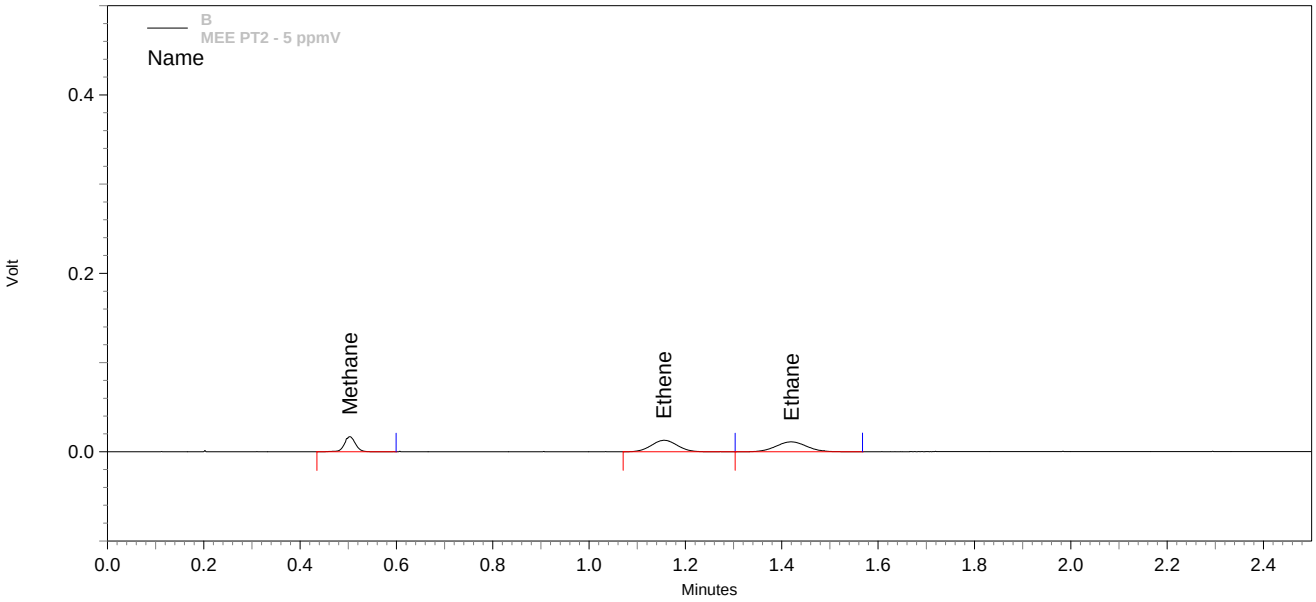
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.508**	**0.515**	**11081**	**2.000 CAL**	**ppmV**
2	**Ethene**	**1.162**	**1.165**	**14964**	**2.000 CAL**	**ppmV**
3	**Ethane**	**1.426**	**1.428**	**14889**	**2.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT2 - 5 ppmV
Acquired: Jul 13, 2023 09:31:08
File Desc. 0.025 mL injection (Methane, Ethene, Ethane)



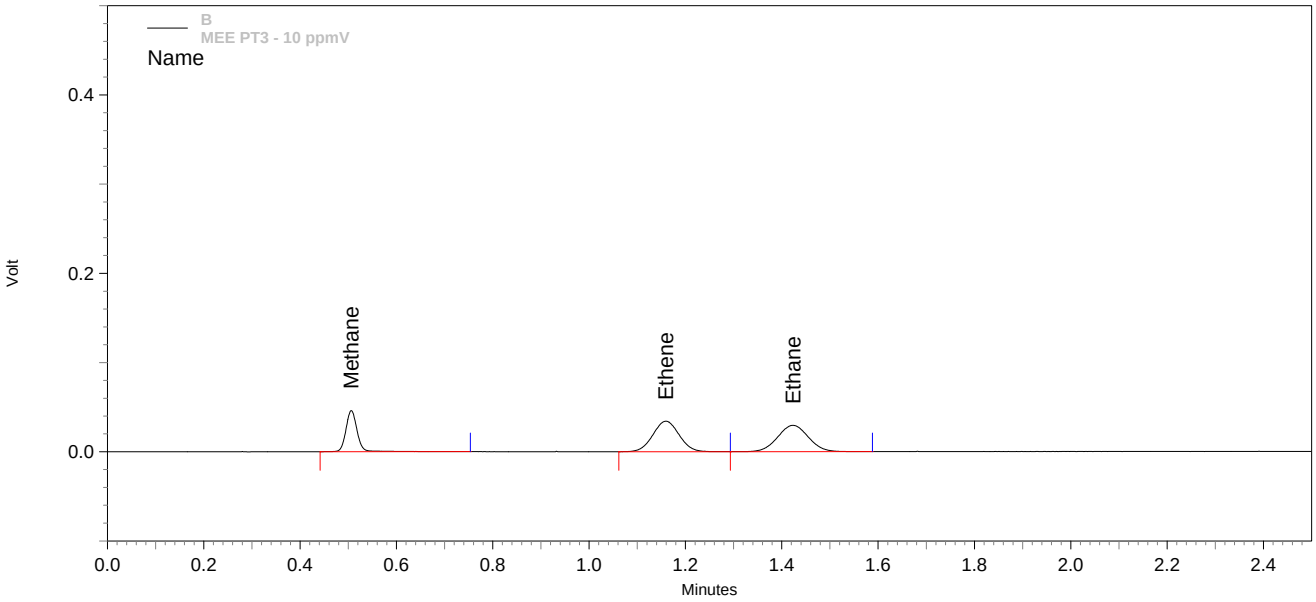
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.503**	**0.515**	**27616**	**5.000 CAL**	**ppmV**
2	**Ethene**	**1.155**	**1.165**	**48494**	**5.000 CAL**	**ppmV**
3	**Ethane**	**1.420**	**1.428**	**49009**	**5.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT3 - 10 ppmV
Acquired: Jul 13, 2023 09:47:55
File Desc. 0.05 mL injection (Methane, Ethene, Ethane)



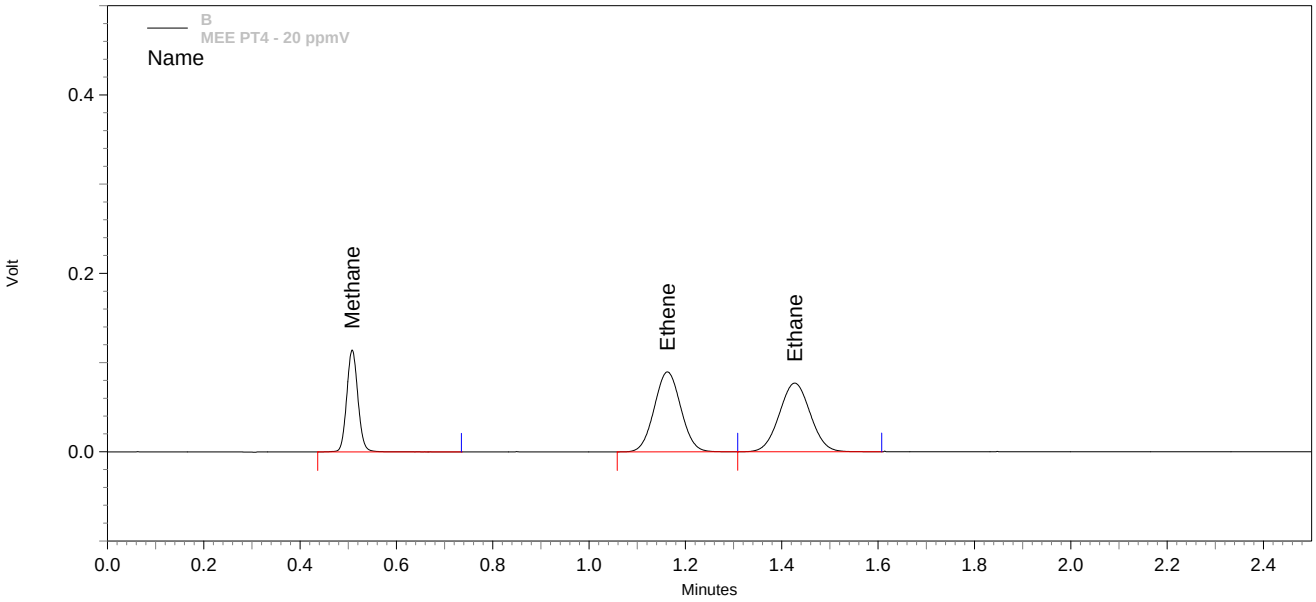
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.506**	**0.515**	**74766**	**10.000 CAL**	**ppmV**
2	**Ethene**	**1.159**	**1.165**	**129009**	**10.000 CAL**	**ppmV**
3	**Ethane**	**1.423**	**1.428**	**130417**	**10.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT4 - 20 ppmV
Acquired: Jul 13, 2023 09:52:25
File Desc. 0.1 mL injection (Methane, Ethene, Ethane)



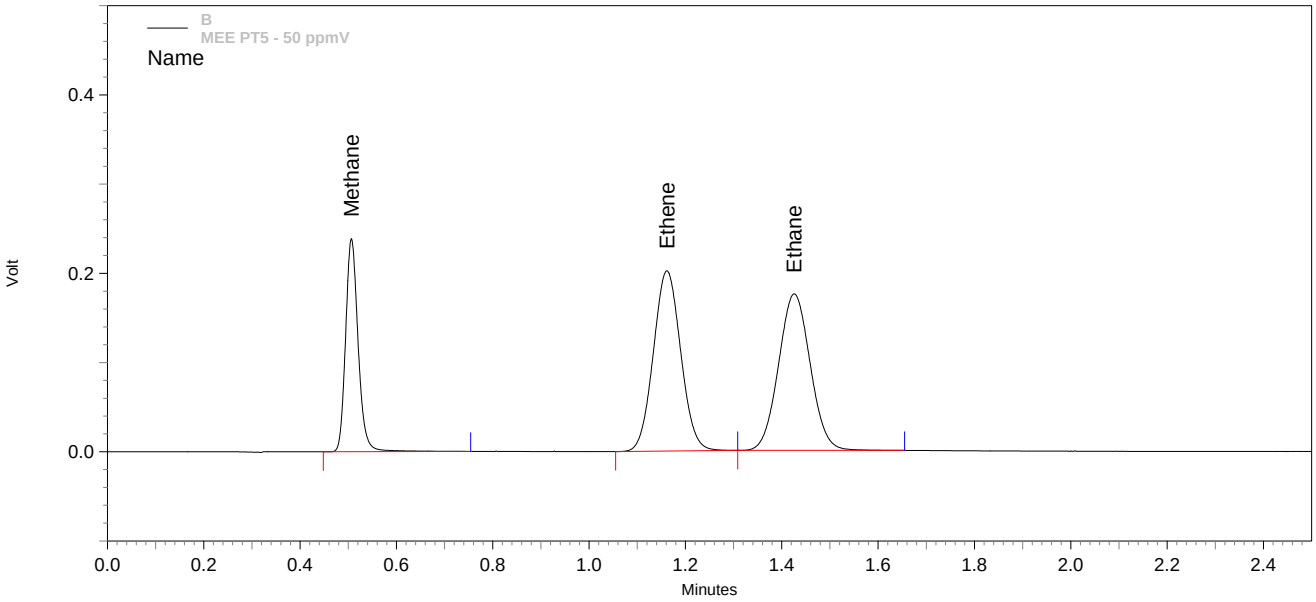
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.508**	**0.515**	**185299**	**20.000 CAL**	**ppmV**
2	**Ethene**	**1.163**	**1.165**	**342724**	**20.000 CAL**	**ppmV**
3	**Ethane**	**1.427**	**1.428**	**343494**	**20.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT5 - 50 ppmV
Acquired: Jul 13, 2023 09:59:02
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



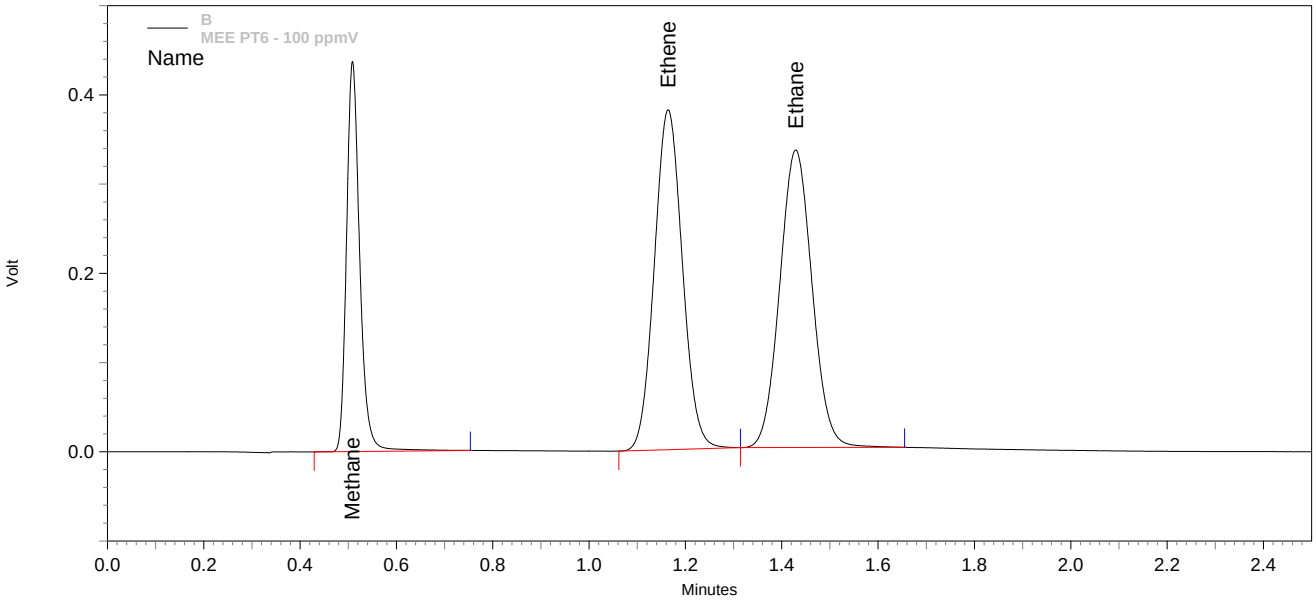
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.507**	**0.515**	**432671**	**50.000 CAL**	**ppmV**
2	**Ethene**	**1.162**	**1.165**	**797184**	**50.000 CAL**	**ppmV**
3	**Ethane**	**1.426**	**1.428**	**802511**	**50.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT6 - 100 ppmV
Acquired: Jul 13, 2023 10:11:00
File Desc. 0.5 mL injection (Methane, Ethene, Ethane)



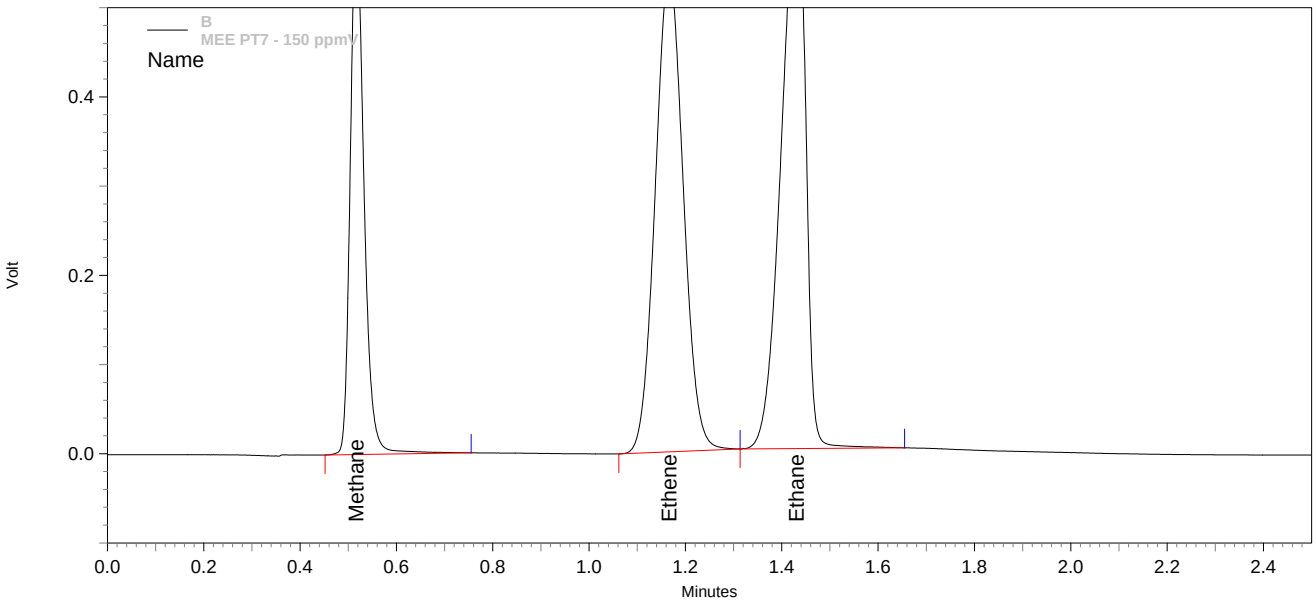
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.508**	**0.515**	**833654**	**100.000 CAL**	**ppmV**
2	**Ethene**	**1.164**	**1.165**	**1539666**	**100.000 CAL**	**ppmV**
3	**Ethane**	**1.429**	**1.428**	**1554620**	**100.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT7 - 150 ppmV
Acquired: Jul 13, 2023 10:33:36
File Desc. 0.75 mL injection (Methane, Ethene, Ethane)



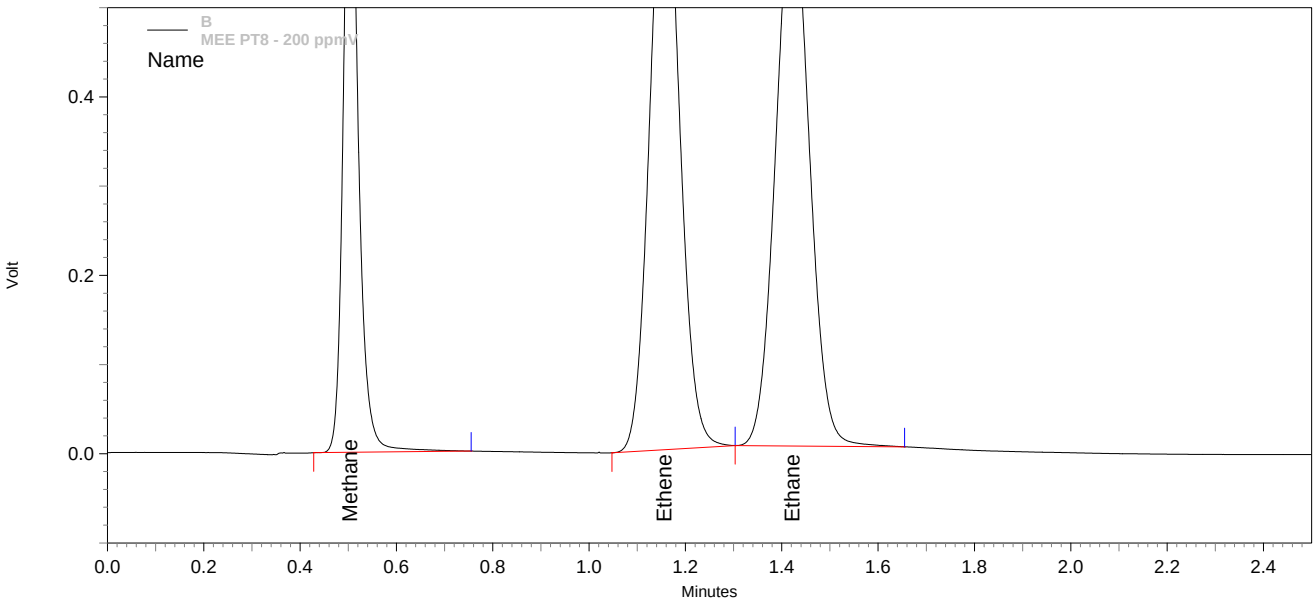
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.517**	**0.515**	**1181541**	**150.000 CAL**	**ppmV**
2	**Ethene**	**1.166**	**1.165**	**2170093**	**150.000 CAL**	**ppmV**
3	**Ethane**	**1.431**	**1.428**	**2185095**	**150.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: MEE PT8 - 200 ppmV
Acquired: Jul 13, 2023 10:38:10
File Desc. 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.503**	**0.515**	**1601803**	**200.000 CAL**	**ppmV**
2	**Ethene**	**1.156**	**1.165**	**2934942**	**200.000 CAL**	**ppmV**
3	**Ethane**	**1.422**	**1.428**	**2961902**	**200.000 CAL**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\071323 - ICAL.seq
User : DGS
Printed : Jul 13, 2023 11:55:21

File	Sample ID	Acquired
C:\Instarch\PVOC4\Data\071323\010.dat	ICV - 50 ppmV	Jul 13, 2023 11:55:21

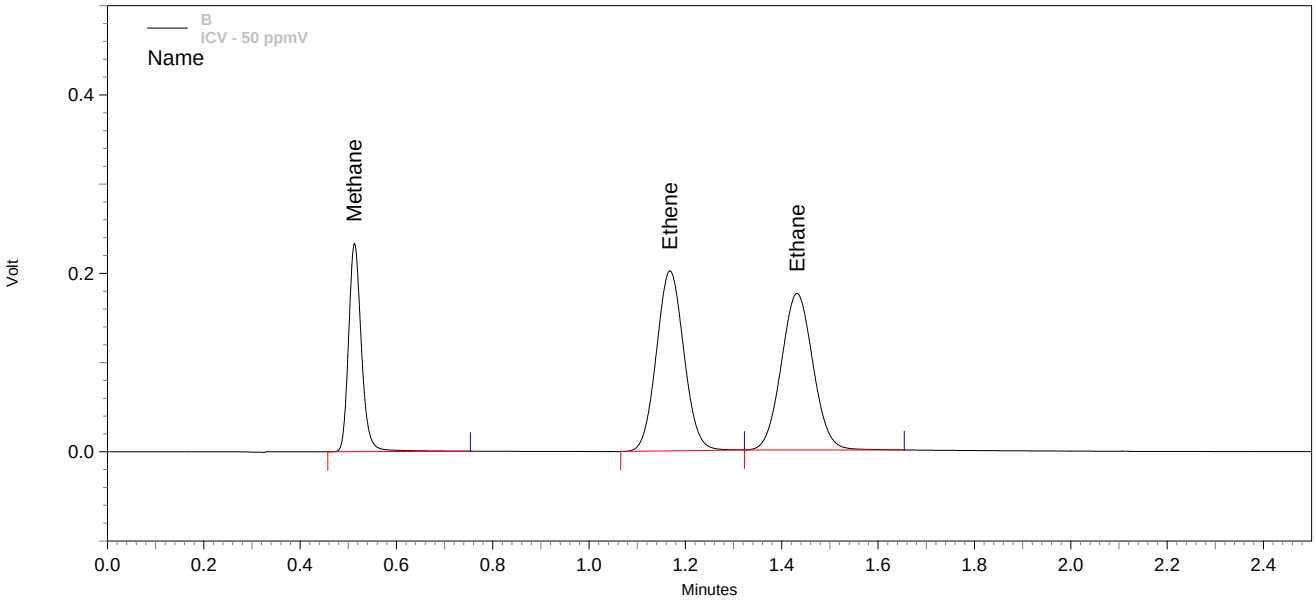
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	53.320	6.640	15.000	**Passed**
Ethene	50.000	53.690	7.380	15.000	**Passed**
Ethane	50.000	53.548	7.096	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: ICV - 50 ppmV
Acquired: Jul 13, 2023 10:50:52
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



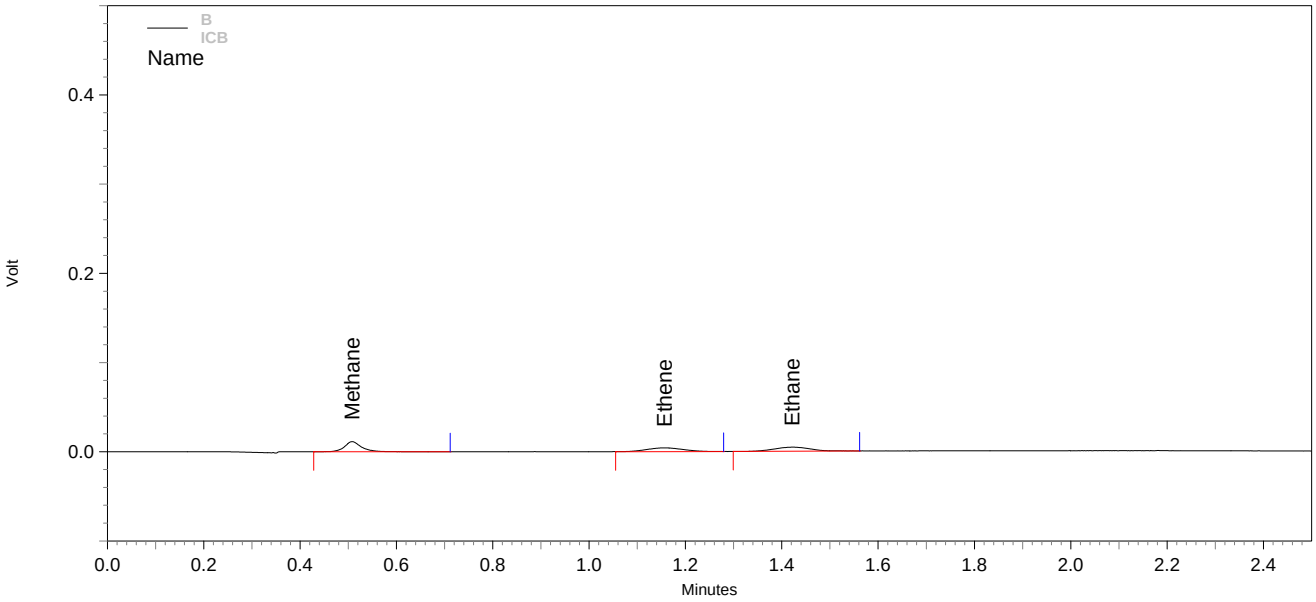
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.512**	**0.515**	**433306**	**53.320**	**ppmV**
2	**Ethene**	**1.168**	**1.165**	**800018**	**53.690**	**ppmV**
3	**Ethane**	**1.432**	**1.428**	**804294**	**53.548**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\071323\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: ICB
Acquired: Jul 13, 2023 11:00:54
File Desc. INITIAL CALIB. BLANK - 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.508**	**0.515**	**28267**	**2.602**	**ppmV**
2	**Ethene**	**1.157**	**1.165**	**21479**	**0.626**	**ppmV**
3	**Ethane**	**1.422**	**1.428**	**23487**	**0.792**	**ppmV**

VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS

Data File : C:\Instarch\Data\JUL2123\BFB1.D Vial: 1
Acq On : 21 Jul 2023 13:36 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.644 to 4.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	5237	PASS
75	95	30	60	49.4	13407	PASS
95	95	100	100	100.0	27165	PASS
96	95	5	9	7.2	1964	PASS
173	174	0.00	2	0.4	80	PASS
174	95	50	100	81.7	22188	PASS
175	174	5	9	8.7	1928	PASS
176	174	95	101	98.4	21823	PASS
177	176	5	9	6.8	1492	PASS

W071823.M Mon Jul 24 14:36:48 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 21 14:37:39 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	101	-0.01
2	PT	Dichlorodi	0.1450	0.1820	-25.52#	117	0.00
3	PT	Chloromethan	0.1928	0.1865	3.27	100	0.00
4	PT	VinylChlorid	0.1831	0.1983	-8.30	101	0.00
5	PT	Bromomethane	0.1143	0.1329	-16.27	112	0.00
6	PT	Chloroethane	0.1187	0.1268	-6.82	103	-0.01
7	T	Dichloroflmethane	0.4825	0.0000	100.00#	0#	-3.18#
8	PT	Trichlorofma	0.3126	0.3520	-12.60	108	0.00
9	T	Ethylether	0.1987	0.1892	4.78	103	0.00
10	T	dichlorotfluoroethan	0.5454	0.0000	100.00#	0#	-3.72#
11	T	propyleneoxide	0.0431	0.0408	5.34	102	0.00
12	T	Acrolein	0.0479	0.0472	1.46	105	-0.01
13	PT	11dichlorthe	0.1837	0.2021	-10.02	106	0.00
14	PT	Trichlorotfluoroeth	0.2009	0.2323	-15.63	108	0.00
15	PT	Acetone	0.1063	0.1116	-4.99	99	-0.01
16	T	Iodomethane	0.2109	0.2194	-4.03	100	-0.01
17	PT	Carbon Dislf	0.4890	0.5664	-15.83	112	0.00
18	T	allylchloride	0.3146	0.3320	-5.53	105	-0.01
19	PT	methylacetate	0.0643	0.0595#	7.47	96	0.00
20	PT	Methylchlorid	0.2252	0.2150	4.53	106	0.00
21	T	tbutylalcohol	0.0226	0.0207	8.41	95	0.00
22	T	Acrylonitrile	0.0969	0.0947	2.27	101	-0.01
23	PT	t12dichlorte	0.2082	0.2174	-4.42	104	-0.01
24	PT	MtBE	0.6000	0.5882	1.97	99	-0.01
25	T	Hexane	0.3198	0.3977	-24.36#	115	-0.01
26	PT	11dichlorota	0.3850	0.3953	-2.68	104	0.00
27	T	Vinylacetate	0.4243	0.4262	-0.45	101	0.00
28	T	chloroprene	0.3578	0.4017	-12.27	106	0.00
29	T	Diisopether	0.6956	0.7188	-3.34	102	-0.01
30	T	ETBE	0.6453	0.6462	-0.14	102	0.00
31	T	22dichloropr	0.2958	0.3228	-9.13	110	0.00
32	PT	c12dichlorte	0.2350	0.2420	-2.98	106	0.00
33	PT	2Butanone	0.0350	0.0350#	0.00	100	0.00
34	T	propionitrile	0.0406	0.0403	0.74	105	0.00
35	T	Ethylacetate	0.0107	0.0098	8.41	98	0.00
36	T	methacrylonitrile	0.1009	0.1023	-1.39	107	0.00
37	T	Bromochlorma	0.1059	0.1078	-1.79	108	-0.01
38	T	Tetrahydofur	0.0793	0.0764	3.66	101	-0.01
39	PT	Chloroform	0.3720	0.3866	-3.92	106	0.00
40	PT	111trichlota	0.3134	0.3336	-6.45	104	-0.01
41	S	SURRDibrflma	0.2541	0.2573	-1.26	102	0.00
42	PT	Cyclohexane	0.3886	0.4493	-15.62	108	0.00
43	PT	Carbtetraclo	0.2440	0.2608	-6.89	106	0.00
44	T	11dicloprope	0.1057	0.1160	-9.74	111	-0.01
45	S	SURR12DCAd4	0.0698	0.0731	-4.73	105	-0.01
46	PT	Benzene	0.8544	0.9100	-6.51	106	0.00
47	PT	12dichlorota	0.3124	0.3192	-2.18	105	0.00
48	T	TAME	0.5752	0.5692	1.04	102	-0.01

49	PT	trichloroete	0.2262	0.2366	-4.60	105	0.00
50	PT	methylcyclohexane	0.4119	0.4859	-17.97	110	-0.01
51	PT	12dicloropra	0.2381	0.2438	-2.39	108	-0.01
52	T	23Dicl1propene	0.3450	0.3599	-4.32	107	-0.01
53	T	Dibromometha	0.1309	0.1323	-1.07	103	-0.01
54	T	methylmethacrylate	0.1689	0.1647	2.49	100	0.00
55	T	14dioxane	0.0033	0.0033	0.00	106	-0.01
56	PT	Bromodiclrma	0.2652	0.2672	-0.75	103	0.00
57	T	2Nitropropane	0.0544	0.0492	9.56	99	0.00
58	T	2CLEVE	0.0797	0.0743	6.78	110	0.00
59	PT	c13dicloproe	0.3292	0.3427	-4.10	104	0.00
60	PT	4Meth2Pentan	0.2140	0.2077	2.94	99	-0.01
61	S	SURRd8Tolule	0.9777	0.9877	-1.02	101	0.00
62	PT	Toluene	0.5578	0.5830	-4.52	105	-0.01
63	PT	t13Dicloprop	0.2761	0.2828	-2.43	103	-0.01
64	T	ethylmethacrylate	0.2783	0.2829	-1.65	102	-0.01
65	PT	112Triclotha	0.1655	0.1664	-0.54	103	0.00
66	PT	Tetrachlorte	0.2450	0.2715	-10.82	111	-0.01
67	T	13Diclorpropa	0.3570	0.3475	2.66	100	-0.01
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	100	0.00
69	PT	2Hexanone	0.2103	0.2181	-3.71	98	-0.01
70	PT	Clorodibrmta	0.2496	0.2580	-3.37	110	0.00
71	PT	12Dibrometha	0.2696	0.2728	-1.19	104	0.00
72	PT	Chlorobenzen	0.7934	0.8302	-4.64	107	0.00
73	T	1Clhexane	0.4115	0.4449	-8.12	107	-0.01
74	T	1112Tetclota	0.2480	0.2550	-2.82	105	-0.01
75	PT	Ethylbenzene	1.3345	1.4597	-9.38	108	0.00
76	PT	m p-Xylene	0.5101	0.5662	-11.00	109	0.00
77	PT	o-Xylene	0.4987	0.5413	-8.54	109	0.00
78	PT	Styrene	0.8008	0.8755	-9.33	108	-0.01
79	PT	Bromoform	0.1505	0.1489	1.06	104	0.00
80	PT	Isopropylben	1.2308	1.3726	-11.52	107	0.00
81	T	cyclohexanone	0.0460	0.0509	-10.65	107	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	103	0.00
83	S	SURR4BrFBenz	1.0216	1.0283	-0.66	103	-0.01
84	T	Bromobenzene	0.6605	0.6714	-1.65	106	0.00
85	PT	1122Tetrclta	0.7076	0.6997	1.12	105	-0.01
86	T	123Triclproa	0.8708	0.8776	-0.78	110	0.00
87	T	14dichloro2butene	0.1872	0.1923	-2.72	111	-0.01
88	T	n-Propylbenz	2.8285	3.1777	-12.35	110	0.00
89	T	2chlorotolue	1.7884	1.9083	-6.70	111	-0.01
90	T	4chlorotolue	2.0141	2.1923	-8.85	109	-0.01
91	T	135Trimebenz	2.0190	2.2539	-11.63	108	-0.01
92	T	tbutylbenzen	1.7359	1.9377	-11.63	110	0.00
93	T	124Trimetben	1.9745	2.2033	-11.59	111	-0.01
94	T	sbutylbenzen	2.3633	2.7730	-17.34	112	0.00
95	PT	13Diclorbenz	1.1651	1.2481	-7.12	111	0.00
96	T	pIsopropylto	2.0322	2.3714	-16.69	113	0.00
97	PT	14dichlorobe	1.2014	1.2469	-3.79	109	-0.01
98	PT	12dichlorobe	1.1391	1.1577	-1.63	106	0.00
99	T	nButylbenzen	1.7788	2.0944	-17.74	116	0.00
100	PT	12dibromo3cl	0.1277	0.1167	8.61	109	0.00
101	T	135Trichlorobenzene	0.7976	0.8589	-7.69	114	0.00
102	PT	124Trichlobe	0.6328	0.6729	-6.34	113	0.00
103	T	Hexachlorobu	0.2779	0.3479	-25.19#	128	0.00
104	T	Naphthalene	1.2088	1.1246	6.97	100	0.00
105	T	123Trichlben	0.5551	0.5729	-3.21	109	0.00

(#) = Out of Range SPCC's out = 2 CCC's out = 0

W071823.M Mon Jul 24 14:39:24 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 21 14:37:39 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	-0.01
2	PT	Dichlorodi	10.0000	12.5509	-25.51#	117	0.00
3	PT	Chloromethan	10.0000	9.6743	3.26	100	0.00
4	PT	VinylChlorid	10.0000	10.8304	-8.30	101	0.00
5	PT	Bromomethane	10.0000	11.3452	-13.45	112	0.00
6	PT	Chloroethane	10.0000	10.6822	-6.82	103	-0.01
7	T	Dichloroflmethane	10.0000	0.0000	100.00#	0	-3.18#
8	PT	Trichlorofma	10.0000	11.2596	-12.60	108	0.00
9	T	Ethylether	10.0000	9.5185	4.82	103	0.00
10	T	dichlorotfluoroethan	10.0000	0.0000	100.00#	0	-3.72#
11	T	propyleneoxide	100.0000	94.5887	5.41	102	0.00
12	T	Acrolein	50.0000	49.2719	1.46	105	-0.01
13	PT	11dichlorthe	10.0000	11.0014	-10.01	106	0.00
14	PT	Trichlorotfluoroeth	20.0000	23.1208	-15.60	108	0.00
15	PT	Acetone	100.0000	107.9154	-7.92	99	-0.01
16	T	Iodomethane	20.0000	18.7478	6.26	100	-0.01
17	PT	Carbon Dislf	20.0000	23.1650	-15.82	112	0.00
18	T	allylchloride	20.0000	21.1097	-5.55	105	-0.01
19	PT	methylacetate	10.0000	9.2411	7.59	96	0.00
20	PT	Methylchlorid	10.0000	10.1400	-1.40	106	0.00
21	T	tbutylalcohol	500.0000	457.0397	8.59	95	0.00
22	T	Acrylonitrile	50.0000	48.8747	2.25	101	-0.01
23	PT	t12dichlorte	10.0000	10.4429	-4.43	104	-0.01
24	PT	MtBE	10.0000	9.8040	1.96	99	-0.01
25	T	Hexane	20.0000	22.4401	-12.20	115	-0.01
26	PT	11dichlorota	10.0000	10.2692	-2.69	104	0.00
27	T	Vinylacetate	100.0000	98.4189	1.58	101	0.00
28	T	chloroprene	20.0000	22.4529	-12.26	106	0.00
29	T	Diisopether	10.0000	10.3342	-3.34	102	-0.01
30	T	ETBE	10.0000	10.0140	-0.14	102	0.00
31	T	22dichloropr	10.0000	10.9129	-9.13	110	0.00
32	PT	c12dichlorte	10.0000	10.2977	-2.98	106	0.00
33	PT	2Butanone	100.0000	99.9233	0.08	100	0.00
34	T	propionitrile	100.0000	99.3247	0.68	105	0.00
35	T	Ethylacetate	50.0000	45.7351	8.53	98	0.00
36	T	methacrylonitrile	20.0000	20.2692	-1.35	107	0.00
37	T	Bromochlorma	10.0000	10.1844	-1.84	108	-0.01
38	T	Tetrahydofur	100.0000	96.4111	3.59	101	-0.01
39	PT	Chloroform	10.0000	10.3936	-3.94	106	0.00
40	PT	111trichlota	10.0000	10.6442	-6.44	104	-0.01
41	S	SURRDibrflma	20.0000	20.2534	-1.27	102	0.00
42	PT	Cyclohexane	10.0000	11.5619	-15.62	108	0.00
43	PT	Carbtetraclo	10.0000	10.6889	-6.89	106	0.00
44	T	11dicloprope	10.0000	10.9676	-9.68	111	-0.01
45	S	SURR12DCAd4	20.0000	20.9384	-4.69	105	-0.01
46	PT	Benzene	10.0000	10.6504	-6.50	106	0.00
47	PT	12dichlorota	10.0000	10.2160	-2.16	105	0.00
48	T	TAME	10.0000	9.8956	1.04	102	-0.01

49	PT	trichloroete	10.0000	10.4595	-4.60	105	0.00
50	PT	methylcyclohexane	10.0000	10.6763	-6.76	110	-0.01
51	PT	12dicloropra	10.0000	10.2378	-2.38	108	-0.01
52	T	23Dicl1propene	10.0000	10.4339	-4.34	107	-0.01
53	T	Dibromometha	10.0000	10.1053	-1.05	103	-0.01
54	T	methylmethacrylate	10.0000	9.7568	2.43	100	0.00
55	T	14dioxane	500.0000	502.1967	-0.44	106	-0.01
56	PT	Bromodiclrma	10.0000	10.0751	-0.75	103	0.00
57	T	2Nitropropane	100.0000	81.2154	18.78	99	0.00
58	T	2CLEVE	50.0000	46.6153	6.77	110	0.00
59	PT	c13dicloproe	10.0000	10.4097	-4.10	104	0.00
60	PT	4Meth2Pentan	100.0000	97.0475	2.95	99	-0.01
61	S	SURRd8Tolule	20.0000	20.2043	-1.02	101	0.00
62	PT	Toluene	10.0000	10.4519	-4.52	105	-0.01
63	PT	t13Dicloprop	10.0000	10.2405	-2.41	103	-0.01
64	T	ethylmethacrylate	20.0000	20.3338	-1.67	102	-0.01
65	PT	112Triclotha	10.0000	10.0570	-0.57	103	0.00
66	PT	Tetrachlorte	10.0000	11.0832	-10.83	111	-0.01
67	T	13Diclorpropa	10.0000	9.7325	2.68	100	-0.01
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00
69	PT	2Hexanone	100.0000	103.7301	-3.73	98	-0.01
70	PT	Clorodibrmta	10.0000	10.3340	-3.34	110	0.00
71	PT	12Dibrometha	10.0000	10.1174	-1.17	104	0.00
72	PT	Chlorobenzen	10.0000	10.4640	-4.64	107	0.00
73	T	1Clhexane	10.0000	10.8120	-8.12	107	-0.01
74	T	1112Tetclota	10.0000	10.2802	-2.80	105	-0.01
75	PT	Ethylbenzene	10.0000	10.9379	-9.38	108	0.00
76	PT	m p-Xylene	20.0000	22.1967	-10.98	109	0.00
77	PT	o-Xylene	10.0000	10.8526	-8.53	109	0.00
78	PT	Styrene	10.0000	10.9332	-9.33	108	-0.01
79	PT	Bromoform	10.0000	9.5637	4.36	104	0.00
80	PT	Isopropylben	10.0000	11.1524	-11.52	107	0.00
81	T	cyclohexanone	200.0000	221.1769	-10.59	107	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	103	0.00
83	S	SURR4BrFBenz	20.0000	20.1292	-0.65	103	-0.01
84	T	Bromobenzene	10.0000	10.1646	-1.65	106	0.00
85	PT	1122Tetrclta	10.0000	9.8891	1.11	105	-0.01
86	T	123Triclproa	10.0000	10.0782	-0.78	110	0.00
87	T	14dichloro2butene	10.0000	10.2734	-2.73	111	-0.01
88	T	n-Propylbenz	10.0000	11.2344	-12.34	110	0.00
89	T	2chlorotolue	10.0000	10.6706	-6.71	111	-0.01
90	T	4chlorotolue	10.0000	10.8849	-8.85	109	-0.01
91	T	135Trimebenz	10.0000	11.1632	-11.63	108	-0.01
92	T	tbutylbenzen	10.0000	11.1626	-11.63	110	0.00
93	T	124Trimetben	10.0000	11.1592	-11.59	111	-0.01
94	T	sbutylbenzen	10.0000	11.7337	-17.34	112	0.00
95	PT	13Diclorbenz	10.0000	10.7123	-7.12	111	0.00
96	T	pIsopropylto	10.0000	11.6690	-16.69	113	0.00
97	PT	14dichlorobe	10.0000	10.3788	-3.79	109	-0.01
98	PT	12dichlorobe	10.0000	10.1632	-1.63	106	0.00
99	T	nButylbenzen	10.0000	11.7738	-17.74	116	0.00
100	PT	12dibromo3cl	10.0000	9.1366	8.63	109	0.00
101	T	135Trichlorobenzene	10.0000	10.7688	-7.69	114	0.00
102	PT	124Trichlobe	10.0000	10.6334	-6.33	113	0.00
103	T	Hexachlorobu	10.0000	12.5195	-25.20#	128	0.00
104	T	Naphthalene	10.0000	8.1224	18.78	100	0.00
105	T	123Trichlben	10.0000	10.3216	-3.22	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W071823.M Mon Jul 24 14:39:49 2023

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1051828	20.00 ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	780914	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	397436	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	270671	20.253 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.25	102	76870	20.938 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %		
61) SURRd8Tolule	9.70	98	1038925	20.204 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.24	95	408664	20.129 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	95738	12.5509 ug/L	99
3) Chloromethan	2.10	50	98095	9.6743 ug/L	100
4) VinylChlorid	2.24	62	104267	10.8304 ug/L	99
5) Bromomethane	2.70	94	69876	11.3452 ug/L	96
6) Chloroethane	2.86	64	66693	10.6822 ug/L	99
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	185113	11.2596 ug/L	99
9) Ethylether	3.70	59	99480	9.5185 ug/L	96
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	3.76	58	214401	94.5887 ug/L	97
12) Acrolein	3.83	56	124095	49.2719 ug/L	99
13) 11dichlorthe	3.98	96	106303	11.0014 ug/L	99
14) Trichlorotfluoroeth	4.02	101	244312	23.1208 ug/L	98
15) Acetone	4.05	43	586830	107.9154 ug/L	97
16) Iodomethane	4.16	142	230749	18.7478 ug/L	97
17) Carbon Dislf	4.25	76	595759	23.1650 ug/L	100
18) allylchloride	4.47	41	349244	21.1097 ug/L	99
19) methylacetate	4.52	74	31271	9.2411 ug/L	99
20) Methylchlorid	4.63	84	113075	10.1400 ug/L	98
21) tbutylalcohol	4.82	59	543363	457.0397 ug/L	100
22) Acrylonitrile	4.92	53	248973	48.8747 ug/L	97
23) t12dichlorte	5.00	96	114352	10.4429 ug/L	99
24) MtBE	5.03	73	309339	9.8040 ug/L	98
25) Hexane	5.39	57	418310	22.4401 ug/L	100
26) 11dichlorota	5.53	63	207908	10.2692 ug/L	99
27) Vinylacetate	5.62	43	2241581	98.4189 ug/L	99
28) chloroprene	5.66	53	422487	22.4529 ug/L	98
29) Diisopether	5.67	45	378035	10.3342 ug/L	98
30) ETBE	6.13	59	339839	10.0140 ug/L	99
31) 22dichloropr	6.27	77	169778	10.9129 ug/L	99
32) c12dichlorte	6.26	96	127251	10.2977 ug/L	97
33) 2Butanone	6.27	72	183928	99.9233 ug/L	99
34) propionitrile	6.31	54	212085	99.3247 ug/L	97
35) Ethylacetate	6.38	88	25699	45.7351 ug/L #	90
36) methacrylonitrile	6.52	67	107583	20.2692 ug/L	96
37) Bromochlorma	6.54	128	56709	10.1844 ug/L	93
38) Tetrahydofur	6.62	42	402026	96.4111 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	203342	10.3936	ug/L	99
40)	111trichlota	6.90	97	175423	10.6442	ug/L	99
42)	Cyclohexane	6.99	56	236287	11.5619	ug/L	99
43)	Carbtetraclo	7.11	119	137171	10.6889	ug/L	100
44)	11dicloprope	7.10	110	60994	10.9676	ug/L	96
46)	Benzene	7.35	78	478577	10.6504	ug/L	99
47)	12dichlorota	7.35	62	167848	10.2160	ug/L	99
48)	TAME	7.52	73	299355	9.8956	ug/L	98
49)	trichloroete	8.16	95	124436	10.4595	ug/L	97
50)	methylcyclohexane	8.42	83	255519	10.6763	ug/L	98
51)	12dicloropra	8.42	63	128192	10.2378	ug/L	95
52)	23Dicl1propene	8.48	75	189298	10.4339	ug/L	99
53)	Dibromometha	8.55	93	69556	10.1053	ug/L	97
54)	methylmethacrylate	8.58	69	86644	9.7568	ug/L	98
55)	14dioxane	8.59	88	86632	502.1967	ug/L	99
56)	Bromodiclrma	8.76	83	140539	10.0751	ug/L	97
57)	2Nitropropane	9.02	43	258515	81.2154	ug/L	100
58)	2CLEVE	9.15	63	195365	46.6153	ug/L	99
59)	c13dicloproe	9.33	75	180218	10.4097	ug/L	97
60)	4Meth2Pentan	9.53	43	1092240	97.0475	ug/L	99
62)	Toluene	9.79	92	306593	10.4519	ug/L	99
63)	t13Dicloprop	10.04	75	148707	10.2405	ug/L	97
64)	ethylmethacrylate	10.19	69	297610	20.3338	ug/L	99
65)	112Triclotha	10.28	83	87533	10.0570	ug/L	99
66)	Tetrachlorte	10.52	166	142805	11.0832	ug/L	98
67)	13Diclorpropa	10.50	76	182751	9.7325	ug/L	99
69)	2Hexanone	10.62	43	851667	103.7301	ug/L	99
70)	Clorodibrmta	10.81	129	100728	10.3340	ug/L	96
71)	12Dibrometha	10.96	107	106520	10.1174	ug/L	99
72)	Chlorobenzen	11.65	112	324163	10.4640	ug/L	100
73)	1Clhexane	11.63	91	173723	10.8120	ug/L	98
74)	1112Tetclota	11.75	131	99563	10.2802	ug/L	98
75)	Ethylbenzene	11.81	91	569946	10.9379	ug/L	98
76)	m p-Xylene	11.98	106	442139	22.1967	ug/L	95
77)	o-Xylene	12.52	106	211342	10.8526	ug/L	97
78)	Styrene	12.53	104	341862	10.9332	ug/L	99
79)	Bromoform	12.77	173	58152	9.5637	ug/L	96
80)	Isopropylben	13.05	105	535939	11.1524	ug/L	100
81)	cyclohexanone	13.12	55	397234	221.1769	ug/L	99
84)	Bromobenzene	13.45	156	133416	10.1646	ug/L	98
85)	1122Tetrclta	13.42	83	139044	9.8891	ug/L	99
86)	123Triclproa	13.48	75	174401	10.0782	ug/L	95
87)	14dichloro2butene	13.51	53	38218	10.2734	ug/L	99
88)	n-Propylbenz	13.63	91	631458	11.2344	ug/L	99
89)	2chlorotolue	13.74	91	379215	10.6706	ug/L	99
90)	4chlorotolue	13.89	91	435657	10.8849	ug/L	100
91)	135Trimebenz	13.89	105	447889	11.1632	ug/L	99
92)	tbutylbenzen	14.35	119	385048	11.1626	ug/L	100
93)	124Trimetben	14.42	105	437845	11.1592	ug/L	99
94)	sbutylbenzen	14.68	105	551053	11.7337	ug/L	97
95)	13Diclorbenz	14.82	146	248016	10.7123	ug/L	98
96)	pIsopropylto	14.89	119	471233	11.6690	ug/L	100
97)	14dichlorobe	14.94	146	247789	10.3788	ug/L	97
98)	12dichlorobe	15.48	146	230062	10.1632	ug/L	97
99)	nButylbenzen	15.49	91	416186	11.7738	ug/L	99
100)	12dibromo3cl	16.57	157	23183	9.1366	ug/L	99
101)	135Trichlorobenzene	16.90	180	170681	10.7688	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	133719	10.6334	ug/L	99
103) Hexachlorobu	17.96	225	69139	12.5195	ug/L	96
104) Naphthalene	18.02	128	223483	8.1224	ug/L	99
105) 123Trichlben	18.33	180	113849	10.3216	ug/L	98

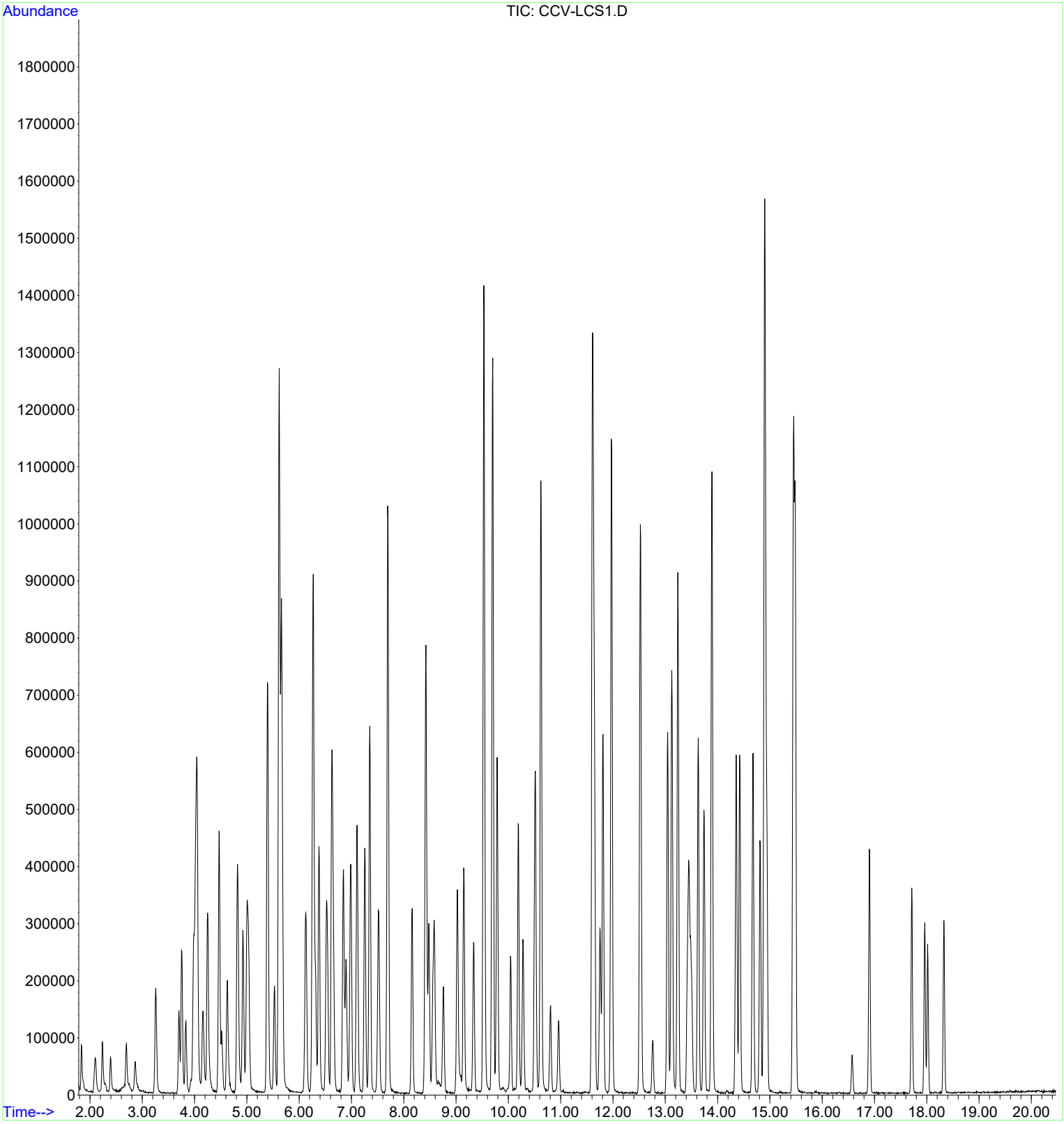
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCVF1.D Vial: 25
Acq On : 22 Jul 2023 00:28 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 22 00:48:53 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	99	0.00
2	PT	Dichlorodi	0.1450	0.1710	-17.93	108	0.00
3	PT	Chloromethan	0.1928	0.1839	4.62	97	0.00
4	PT	VinylChlorid	0.1831	0.1946	-6.28	97	0.00
5	PT	Bromomethane	0.1143	0.1309	-14.52	109	0.00
6	PT	Chloroethane	0.1187	0.1217	-2.53	97	0.00
7	T	Dichloroflmethane	0.4825	0.0000	100.00#	0#	-3.18#
8	PT	Trichlorofma	0.3126	0.3534	-13.05	107	0.00
9	T	Ethylether	0.1987	0.1908	3.98	102	0.00
10	T	dichlorotfluoroethan	0.5454	0.0000	100.00#	0#	-3.72#
11	T	propyleneoxide	0.0431	0.0407	5.57	100	0.00
12	T	Acrolein	0.0479	0.0438	8.56	96	0.00
13	PT	11dichlorthe	0.1837	0.2039	-11.00	105	0.00
14	PT	Trichlorotfluoroeth	0.2009	0.2296	-14.29	105	0.00
15	PT	Acetone	0.1063	0.0742#	30.20	65	0.00
16	T	Iodomethane	0.2109	0.2228	-5.64	100	0.00
17	PT	Carbon Dislf	0.4890	0.5408	-10.59	105	0.00
18	T	allylchloride	0.3146	0.3196	-1.59	100	0.00
19	PT	methylacetate	0.0643	0.0602#	6.38	96	0.00
20	PT	Methylchlorid	0.2252	0.2211	1.82	108	0.00
21	T	tbutylalcohol	0.0226	0.0200	11.50	91	0.00
22	T	Acrylonitrile	0.0969	0.0946	2.37	99	0.00
23	PT	t12dichlorte	0.2082	0.2269	-8.98	107	0.00
24	PT	MtBE	0.6000	0.5895	1.75	98	0.00
25	T	Hexane	0.3198	0.3597	-12.48	102	0.00
26	PT	11dichlorota	0.3850	0.4066	-5.61	105	0.00
27	T	Vinylacetate	0.4243	0.4086	3.70	95	0.00
28	T	chloroprene	0.3578	0.3962	-10.73	103	0.00
29	T	Diisopether	0.6956	0.7245	-4.15	101	0.00
30	T	ETBE	0.6453	0.6333	1.86	98	0.00
31	T	22dichloropr	0.2958	0.2605	11.93	88	0.00
32	PT	c12dichlorte	0.2350	0.2459	-4.64	106	0.00
33	PT	2Butanone	0.0350	0.0300#	14.29	84	0.00
34	T	propionitrile	0.0406	0.0395	2.71	101	0.00
35	T	Ethylacetate	0.0107	0.0095	11.21	94	0.00
36	T	methacrylonitrile	0.1009	0.0986	2.28	102	0.00
37	T	Bromochlorma	0.1059	0.1066	-0.66	105	0.00
38	T	Tetrahydofur	0.0793	0.0739	6.81	96	0.00
39	PT	Chloroform	0.3720	0.3932	-5.70	106	0.00
40	PT	111trichlota	0.3134	0.3285	-4.82	101	-0.01
41	S	SURRDibrflma	0.2541	0.2598	-2.24	101	0.00
42	PT	Cyclohexane	0.3886	0.4434	-14.10	105	0.00
43	PT	Carbtetraclo	0.2440	0.2533	-3.81	102	0.00
44	T	11dicloprope	0.1057	0.1180	-11.64	112	-0.01
45	S	SURR12DCAd4	0.0698	0.0716	-2.58	101	0.00
46	PT	Benzene	0.8544	0.9213	-7.83	105	0.00
47	PT	12dichlorota	0.3124	0.3058	2.11	99	0.00
48	T	TAME	0.5752	0.5557	3.39	98	-0.01

49	PT	trichloroete	0.2262	0.2408	-6.45	105	0.00
50	PT	methylcyclohexane	0.4119	0.4803	-16.61	107	0.00
51	PT	12dicloropra	0.2381	0.2458	-3.23	107	-0.01
52	T	23Dicl1propene	0.3450	0.3600	-4.35	105	0.00
53	T	Dibromometha	0.1309	0.1346	-2.83	104	0.00
54	T	methylmethacrylate	0.1689	0.1685	0.24	100	0.00
55	T	14dioxane	0.0033	0.0032	3.03	100	-0.01
56	PT	Bromodiclrma	0.2652	0.2637	0.57	100	0.00
57	T	2Nitropropane	0.0544	0.0444	18.38	88	0.00
58	T	2CLEVE	0.0797	0.0774	2.89	113	0.00
59	PT	c13dicloproe	0.3292	0.3297	-0.15	99	0.00
60	PT	4Meth2Pentan	0.2140	0.2022	5.51	95	0.00
61	S	SURRd8Tolule	0.9777	0.9971	-1.98	100	0.00
62	PT	Toluene	0.5578	0.6003	-7.62	107	-0.01
63	PT	t13Dicloprop	0.2761	0.2710	1.85	98	0.00
64	T	ethylmethacrylate	0.2783	0.2731	1.87	97	0.00
65	PT	112Triclotha	0.1655	0.1625	1.81	98	0.00
66	PT	Tetrachlorte	0.2450	0.2596	-5.96	104	0.00
67	T	13Diclorpropa	0.3570	0.3612	-1.18	102	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	100	0.00
69	PT	2Hexanone	0.2103	0.1921	8.65	86	0.00
70	PT	Clorodibrmta	0.2496	0.2408	3.53	102	0.00
71	PT	12Dibrometha	0.2696	0.2642	2.00	100	0.00
72	PT	Chlorobenzen	0.7934	0.8334	-5.04	107	0.00
73	T	1Clhexane	0.4115	0.4391	-6.71	105	-0.01
74	T	1112Tetclota	0.2480	0.2518	-1.53	103	-0.01
75	PT	Ethylbenzene	1.3345	1.4555	-9.07	107	0.00
76	PT	m p-Xylene	0.5101	0.5600	-9.78	107	0.00
77	PT	o-Xylene	0.4987	0.5368	-7.64	108	-0.01
78	PT	Styrene	0.8008	0.8858	-10.61	109	-0.01
79	PT	Bromoform	0.1505	0.1410	6.31	99	-0.01
80	PT	Isopropylben	1.2308	1.3627	-10.72	106	0.00
81	T	cyclohexanone	0.0460	0.0204	55.65#	43#	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	104	0.00
83	S	SURR4BrFBenz	1.0216	0.9931	2.79	100	-0.01
84	T	Bromobenzene	0.6605	0.6626	-0.32	106	0.00
85	PT	1122Tetrclta	0.7076	0.6415	9.34	98	-0.01
86	T	123Triclproa	0.8708	0.7816	10.24	99	0.00
87	T	14dichloro2butene	0.1872	0.1618	13.57	95	-0.01
88	T	n-Propylbenz	2.8285	3.0542	-7.98	107	0.00
89	T	2chlorotolue	1.7884	1.8444	-3.13	109	-0.01
90	T	4chlorotolue	2.0141	2.1181	-5.16	107	0.00
91	T	135Trimebenz	2.0190	2.1765	-7.80	106	-0.01
92	T	tbutylbenzen	1.7359	1.9143	-10.28	110	0.00
93	T	124Trimetben	1.9745	2.1337	-8.06	109	0.00
94	T	sbutylbenzen	2.3633	2.6953	-14.05	111	0.00
95	PT	13Diclorbenz	1.1651	1.2065	-3.55	108	0.00
96	T	pIsopropylto	2.0322	2.3046	-13.40	111	0.00
97	PT	14dichlorobe	1.2014	1.2146	-1.10	108	-0.01
98	PT	12dichlorobe	1.1391	1.1270	1.06	104	0.00
99	T	nButylbenzen	1.7788	2.0203	-13.58	113	0.00
100	PT	12dibromo3cl	0.1277	0.1130	11.51	107	0.00
101	T	135Trichlorobenzene	0.7976	0.8301	-4.07	112	0.00
102	PT	124Trichlobe	0.6328	0.6631	-4.79	112	0.00
103	T	Hexachlorobu	0.2779	0.3387	-21.88	126	0.00
104	T	Naphthalene	1.2088	1.0747	11.09	97	0.00
105	T	123Trichlben	0.5551	0.5391	2.88	104	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W071823.M Mon Jul 24 14:41:50 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCVF1.D Vial: 25
Acq On : 22 Jul 2023 00:28 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 22 00:48:53 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	99	0.00
2	PT	Dichlorodi	10.0000	11.7898	-17.90	108	0.00
3	PT	Chloromethan	10.0000	9.5395	4.60	97	0.00
4	PT	VinylChlorid	10.0000	10.6316	-6.32	97	0.00
5	PT	Bromomethane	10.0000	11.1656	-11.66	109	0.00
6	PT	Chloroethane	10.0000	10.2534	-2.53	97	0.00
7	T	Dichloroflmethane	10.0000	0.0000	100.00#	0	-3.18#
8	PT	Trichlorofma	10.0000	11.3054	-13.05	107	0.00
9	T	Ethylether	10.0000	9.6012	3.99	102	0.00
10	T	dichlorotfluoroethan	10.0000	0.0000	100.00#	0	-3.72#
11	T	propyleneoxide	100.0000	94.4516	5.55	100	0.00
12	T	Acrolein	50.0000	45.7688	8.46	96	0.00
13	PT	11dichlorthe	10.0000	11.0982	-10.98	105	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.8567	-14.28	105	0.00
15	PT	Acetone	100.0000	70.6066	29.39	65	0.00
16	T	Iodomethane	20.0000	19.0082	4.96	100	0.00
17	PT	Carbon Dislf	20.0000	22.1198	-10.60	105	0.00
18	T	allylchloride	20.0000	20.3203	-1.60	100	0.00
19	PT	methylacetate	10.0000	9.3582	6.42	96	0.00
20	PT	Methylchlorid	10.0000	10.4360	-4.36	108	0.00
21	T	tbutylalcohol	500.0000	443.4162	11.32	91	0.00
22	T	Acrylonitrile	50.0000	48.8236	2.35	99	0.00
23	PT	t12dichlorte	10.0000	10.8998	-9.00	107	0.00
24	PT	MtBE	10.0000	9.8257	1.74	98	0.00
25	T	Hexane	20.0000	20.2943	-1.47	102	0.00
26	PT	11dichlorota	10.0000	10.5614	-5.61	105	0.00
27	T	Vinylacetate	100.0000	93.8867	6.11	95	0.00
28	T	chloroprene	20.0000	22.1451	-10.73	103	0.00
29	T	Diisopether	10.0000	10.4163	-4.16	101	0.00
30	T	ETBE	10.0000	9.8141	1.86	98	0.00
31	T	22dichloropr	10.0000	8.8075	11.93	88	0.00
32	PT	c12dichlorte	10.0000	10.4651	-4.65	106	0.00
33	PT	2Butanone	100.0000	85.7519	14.25	84	0.00
34	T	propionitrile	100.0000	97.3550	2.64	101	0.00
35	T	Ethylacetate	50.0000	44.5650	10.87	94	0.00
36	T	methacrylonitrile	20.0000	19.5336	2.33	102	0.00
37	T	Bromochlorma	10.0000	10.0677	-0.68	105	0.00
38	T	Tetrahydofur	100.0000	93.2175	6.78	96	0.00
39	PT	Chloroform	10.0000	10.5693	-5.69	106	0.00
40	PT	111trichlota	10.0000	10.4841	-4.84	101	-0.01
41	S	SURRDibrflma	20.0000	20.4476	-2.24	101	0.00
42	PT	Cyclohexane	10.0000	11.4103	-14.10	105	0.00
43	PT	Carbtetraclo	10.0000	10.3805	-3.80	102	0.00
44	T	11dicloprope	10.0000	11.1606	-11.61	112	-0.01
45	S	SURR12DCAd4	20.0000	20.5083	-2.54	101	0.00
46	PT	Benzene	10.0000	10.7827	-7.83	105	0.00
47	PT	12dichlorota	10.0000	9.7880	2.12	99	0.00
48	T	TAME	10.0000	9.6600	3.40	98	-0.01

49	PT	trichloroete	10.0000	10.6432	-6.43	105	0.00
50	PT	methylcyclohexane	10.0000	10.5566	-5.57	107	0.00
51	PT	12dicloropra	10.0000	10.3220	-3.22	107	-0.01
52	T	23Dicl1propene	10.0000	10.4362	-4.36	105	0.00
53	T	Dibromometha	10.0000	10.2840	-2.84	104	0.00
54	T	methylmethacrylate	10.0000	9.9803	0.20	100	0.00
55	T	14dioxane	500.0000	484.4411	3.11	100	-0.01
56	PT	Bromodiclrma	10.0000	9.9432	0.57	100	0.00
57	T	2Nitropropane	100.0000	74.4119	25.59	88	0.00
58	T	2CLEVE	50.0000	48.5495	2.90	113	0.00
59	PT	c13dicloproe	10.0000	10.0149	-0.15	99	0.00
60	PT	4Meth2Pentan	100.0000	94.4810	5.52	95	0.00
61	S	SURRd8Tolule	20.0000	20.3952	-1.98	100	0.00
62	PT	Toluene	10.0000	10.7621	-7.62	107	-0.01
63	PT	t13Dicloprop	10.0000	9.8143	1.86	98	0.00
64	T	ethylmethacrylate	20.0000	19.6265	1.87	97	0.00
65	PT	112Triclotha	10.0000	9.8210	1.79	98	0.00
66	PT	Tetrachlorte	10.0000	10.5967	-5.97	104	0.00
67	T	13Diclorpropa	10.0000	10.1155	-1.16	102	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00
69	PT	2Hexanone	100.0000	91.3614	8.64	86	0.00
70	PT	Clorodibrmta	10.0000	9.6441	3.56	102	0.00
71	PT	12Dibrometha	10.0000	9.7966	2.03	100	0.00
72	PT	Chlorobenzen	10.0000	10.5044	-5.04	107	0.00
73	T	1Clhexane	10.0000	10.6698	-6.70	105	-0.01
74	T	1112Tetclota	10.0000	10.1520	-1.52	103	-0.01
75	PT	Ethylbenzene	10.0000	10.9065	-9.06	107	0.00
76	PT	m p-Xylene	20.0000	21.9543	-9.77	107	0.00
77	PT	o-Xylene	10.0000	10.7623	-7.62	108	-0.01
78	PT	Styrene	10.0000	11.0619	-10.62	109	-0.01
79	PT	Bromoform	10.0000	9.1082	8.92	99	-0.01
80	PT	Isopropylben	10.0000	11.0717	-10.72	106	0.00
81	T	cyclohexanone	200.0000	88.4950	55.75#	43	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	104	0.00
83	S	SURR4BrFBenz	20.0000	19.4408	2.80	100	-0.01
84	T	Bromobenzene	10.0000	10.0313	-0.31	106	0.00
85	PT	1122Tetrclta	10.0000	9.0667	9.33	98	-0.01
86	T	123Triclproa	10.0000	8.9758	10.24	99	0.00
87	T	14dichloro2butene	10.0000	8.6430	13.57	95	-0.01
88	T	n-Propylbenz	10.0000	10.7979	-7.98	107	0.00
89	T	2chlorotolue	10.0000	10.3134	-3.13	109	-0.01
90	T	4chlorotolue	10.0000	10.5161	-5.16	107	0.00
91	T	135Trimebenz	10.0000	10.7801	-7.80	106	-0.01
92	T	tbutylbenzen	10.0000	11.0281	-10.28	110	0.00
93	T	124Trimetben	10.0000	10.8066	-8.07	109	0.00
94	T	sbutylbenzen	10.0000	11.4047	-14.05	111	0.00
95	PT	13Diclorbenz	10.0000	10.3557	-3.56	108	0.00
96	T	pIsopropylto	10.0000	11.3404	-13.40	111	0.00
97	PT	14dichlorobe	10.0000	10.1101	-1.10	108	-0.01
98	PT	12dichlorobe	10.0000	9.8935	1.07	104	0.00
99	T	nButylbenzen	10.0000	11.3578	-13.58	113	0.00
100	PT	12dibromo3cl	10.0000	8.8519	11.48	107	0.00
101	T	135Trichlorobenzene	10.0000	10.4074	-4.07	112	0.00
102	PT	124Trichlobe	10.0000	10.4779	-4.78	112	0.00
103	T	Hexachlorobu	10.0000	12.1874	-21.87	126	0.00
104	T	Naphthalene	10.0000	7.8001	22.00	97	0.00
105	T	123Trichlben	10.0000	9.7118	2.88	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W071823.M Mon Jul 24 14:42:16 2023

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF1.D Vial: 25
Acq On : 22 Jul 2023 00:28 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:48:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1034710	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	779980	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	402556	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	268819	20.448	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	74066	20.508	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.70	98	1031672	20.395	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.24	95	399772	19.441	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	88469	11.7898	ug/L	98
3) Chloromethan	2.10	50	95154	9.5395	ug/L	100
4) VinylChlorid	2.24	62	100687	10.6316	ug/L	98
5) Bromomethane	2.70	94	67725	11.1656	ug/L	100
6) Chloroethane	2.87	64	62974	10.2534	ug/L	100
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	182840	11.3054	ug/L	100
9) Ethylether	3.70	59	98711	9.6012	ug/L	97
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	210606	94.4516	ug/L	97
12) Acrolein	3.84	56	113396	45.7688	ug/L	99
13) 11dichlorthe	3.99	96	105493	11.0982	ug/L	98
14) Trichlorotfluoroeth	4.02	101	237591	22.8567	ug/L	99
15) Acetone	4.05	43	383872	70.6066	ug/L	98
16) Iodomethane	4.16	142	230514	19.0082	ug/L	98
17) Carbon Dislf	4.25	76	559619	22.1198	ug/L	99
18) allylchloride	4.47	41	330713	20.3203	ug/L	99
19) methylacetate	4.52	74	31152	9.3582	ug/L	98
20) Methylchlorid	4.63	84	114405	10.4360	ug/L	96
21) tbutylalcohol	4.82	59	518587	443.4162	ug/L	98
22) Acrylonitrile	4.93	53	244665	48.8236	ug/L	98
23) t12dichlorte	5.00	96	117412	10.8998	ug/L	98
24) MtBE	5.03	73	304978	9.8257	ug/L	100
25) Hexane	5.40	57	372226	20.2943	ug/L	100
26) 11dichlorota	5.53	63	210345	10.5614	ug/L	98
27) Vinylacetate	5.62	43	2113908	93.8867	ug/L	99
28) chloroprene	5.66	53	409913	22.1451	ug/L	99
29) Diisopether	5.68	45	374837	10.4163	ug/L	93
30) ETBE	6.13	59	327636	9.8141	ug/L	99
31) 22dichloropr	6.27	77	134793	8.8075	ug/L	98
32) c12dichlorte	6.26	96	127214	10.4651	ug/L	99
33) 2Butanone	6.27	72	155274	85.7519	ug/L	99
34) propionitrile	6.31	54	204496	97.3550	ug/L	98
35) Ethylacetate	6.38	88	24634	44.5650	ug/L #	93
36) methacrylonitrile	6.52	67	101991	19.5336	ug/L	96
37) Bromochlorma	6.55	128	55147	10.0677	ug/L	99
38) Tetrahydofur	6.63	42	382383	93.2175	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF1.D Vial: 25
Acq On : 22 Jul 2023 00:28 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:48:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.66	83	203414	10.5693 ug/L	99
40) 111trichlota	6.90	97	169973	10.4841 ug/L	99
42) Cyclohexane	6.99	56	229394	11.4103 ug/L	98
43) Carbtetraclo	7.11	119	131045	10.3805 ug/L	99
44) 11dicloprope	7.10	110	61057	11.1606 ug/L	96
46) Benzene	7.35	78	476634	10.7827 ug/L	98
47) 12dichlorota	7.35	62	158199	9.7880 ug/L	99
48) TAME	7.52	73	287472	9.6600 ug/L	99
49) trichloroete	8.16	95	124560	10.6432 ug/L	97
50) methylcyclohexane	8.43	83	248500	10.5566 ug/L	99
51) 12dicloropra	8.42	63	127143	10.3220 ug/L	96
52) 23Dicl1propene	8.48	75	186258	10.4362 ug/L	98
53) Dibromometha	8.56	93	69634	10.2840 ug/L	98
54) methylmethacrylate	8.58	69	87186	9.9803 ug/L	99
55) 14dioxane	8.59	88	82209	484.4411 ug/L	99
56) Bromodiclrma	8.76	83	136442	9.9432 ug/L	97
57) 2Nitropropane	9.02	43	229888	74.4119 ug/L	100
58) 2CLEVE	9.15	63	200160	48.5495 ug/L	99
59) c13dicloproe	9.33	75	170561	10.0149 ug/L	99
60) 4Meth2Pentan	9.54	43	1046050	94.4810 ug/L	99
62) Toluene	9.78	92	310556	10.7621 ug/L	98
63) t13Dicloprop	10.05	75	140198	9.8143 ug/L	99
64) ethylmethacrylate	10.19	69	282583	19.6265 ug/L	99
65) 112Triclotha	10.28	83	84088	9.8210 ug/L	98
66) Tetrachlorte	10.52	166	134315	10.5967 ug/L	97
67) 13Diclorpropa	10.51	76	186851	10.1155 ug/L	99
69) 2Hexanone	10.62	43	749218	91.3614 ug/L	99
70) Clorodibrmta	10.81	129	93891	9.6441 ug/L	100
71) 12Dibrometha	10.97	107	103019	9.7966 ug/L	98
72) Chlorobenzen	11.65	112	325025	10.5044 ug/L	100
73) 1Clhexane	11.63	91	171233	10.6698 ug/L	98
74) 1112Tetclota	11.75	131	98204	10.1520 ug/L	98
75) Ethylbenzene	11.81	91	567630	10.9065 ug/L	98
76) m p-Xylene	11.97	106	436786	21.9543 ug/L	95
77) o-Xylene	12.52	106	209334	10.7623 ug/L	99
78) Styrene	12.53	104	345472	11.0619 ug/L	98
79) Bromoform	12.76	173	54985	9.1082 ug/L	96
80) Isopropylben	13.05	105	531425	11.0717 ug/L	99
81) cyclohexanone	13.12	55	158747	88.4950 ug/L	96
84) Bromobenzene	13.45	156	133363	10.0313 ug/L	98
85) 1122Tetrclta	13.42	83	129123	9.0667 ug/L	99
86) 123Triclproa	13.48	75	157325	8.9758 ug/L	99
87) 14dichloro2butene	13.51	53	32567	8.6430 ug/L	95
88) n-Propylbenz	13.63	91	614741	10.7979 ug/L	100
89) 2chlorotolue	13.74	91	371241	10.3134 ug/L	99
90) 4chlorotolue	13.90	91	426317	10.5161 ug/L	100
91) 135Trimebenz	13.89	105	438089	10.7801 ug/L	98
92) tbutylbenzen	14.36	119	385309	11.0281 ug/L	99
93) 124Trimetben	14.43	105	429475	10.8066 ug/L	99
94) sbutylbenzen	14.68	105	542500	11.4047 ug/L	98
95) 13Diclorbenz	14.82	146	242849	10.3557 ug/L	98
96) pIsopropylto	14.89	119	463862	11.3404 ug/L	99
97) 14dichlorobe	14.94	146	244482	10.1101 ug/L	99
98) 12dichlorobe	15.48	146	226842	9.8935 ug/L	99
99) nButylbenzen	15.49	91	406651	11.3578 ug/L	99
100) 12dibromo3cl	16.57	157	22750	8.8519 ug/L	92
101) 135Trichlorobenzene	16.90	180	167078	10.4074 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF1.D Vial: 25
Acq On : 22 Jul 2023 00:28 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:48:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	133461	10.4779	ug/L	95
103) Hexachlorobu	17.96	225	68172	12.1874	ug/L	94
104) Naphthalene	18.02	128	216315	7.8001	ug/L	99
105) 123Trichlben	18.33	180	108503	9.7118	ug/L	98

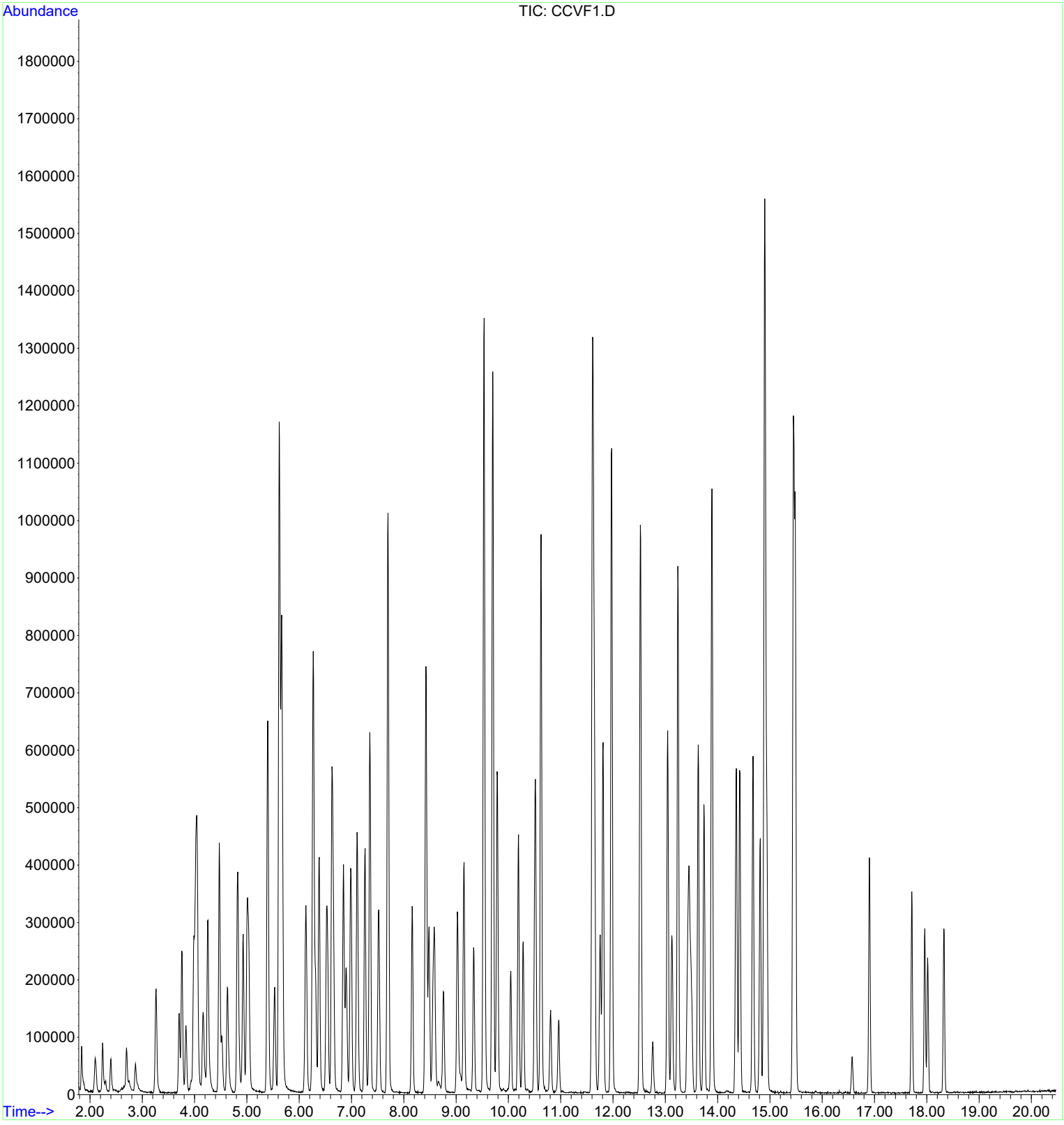
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF1.D Vial: 25
Acq On : 22 Jul 2023 00:28 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 22 00:48:53 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Data File : C:\Instarch\Data\JUL2123\BFB2.D Vial: 26
Acq On : 24 Jul 2023 7:09 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.657 to 4.669 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	10525	PASS
75	95	30	60	49.5	26189	PASS
95	95	100	100	100.0	52901	PASS
96	95	5	9	5.6	2956	PASS
173	174	0.00	2	0.7	277	PASS
174	95	50	100	80.5	42592	PASS
175	174	5	9	7.8	3317	PASS
176	174	95	101	100.4	42744	PASS
177	176	5	9	7.1	3017	PASS

W071823.M Mon Jul 24 14:37:42 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCV2.D Vial: 28
Acq On : 24 Jul 2023 7:49 Operator: DGS-RLD
Sample : 273706,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 24 08:09:52 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	104	-0.01
2	PT	Dichlorodi	0.1450	0.1713	-18.14	113	0.00
3	PT	Chloromethan	0.1928	0.1766	8.40	98	0.00
4	PT	VinylChlorid	0.1831	0.1934	-5.63	101	0.00
5	PT	Bromomethane	0.1143	0.1283	-12.25	112	0.00
6	PT	Chloroethane	0.1187	0.1242	-4.63	104	-0.01
7	T	Dichloroflmethane	0.4825	0.0000	100.00#	0#	-3.18#
8	PT	Trichlorofma	0.3126	0.3447	-10.27	109	0.00
9	T	Ethylether	0.1987	0.1903	4.23	107	0.00
10	T	dichlorotfluoroethan	0.5454	0.0000	100.00#	0#	-3.72#
11	T	propyleneoxide	0.0431	0.0394	8.58	101	0.00
12	T	Acrolein	0.0479	0.0443	7.52	101	-0.01
13	PT	11dichlorthe	0.1837	0.2074	-12.90	112	0.00
14	PT	Trichlorotfluoroeth	0.2009	0.2275	-13.24	109	-0.01
15	PT	Acetone	0.1063	0.1093	-2.82	100	-0.01
16	T	Iodomethane	0.2109	0.2403	-13.94	113	-0.01
17	PT	Carbon Dislf	0.4890	0.5721	-16.99	116	0.00
18	T	allylchloride	0.3146	0.3204	-1.84	105	-0.01
19	PT	methylacetate	0.0643	0.0598#	7.00	99	0.00
20	PT	Methylchlorid	0.2252	0.2167	3.77	111	-0.01
21	T	tbutylalcohol	0.0226	0.0188	16.81	90	0.00
22	T	Acrylonitrile	0.0969	0.0918	5.26	101	-0.01
23	PT	t12dichlorte	0.2082	0.2182	-4.80	108	0.00
24	PT	MtBE	0.6000	0.5968	0.53	104	-0.01
25	T	Hexane	0.3198	0.3569	-11.60	106	-0.01
26	PT	11dichlorota	0.3850	0.3970	-3.12	108	0.00
27	T	Vinylacetate	0.4243	0.3928	7.42	96	0.00
28	T	chloroprene	0.3578	0.3922	-9.61	107	0.00
29	T	Diisopether	0.6956	0.7120	-2.36	104	-0.01
30	T	ETBE	0.6453	0.6439	0.22	104	0.00
31	T	22dichloropr	0.2958	0.3023	-2.20	107	0.00
32	PT	c12dichlorte	0.2350	0.2357	-0.30	107	0.00
33	PT	2Butanone	0.0350	0.0347#	0.86	102	-0.01
34	T	propionitrile	0.0406	0.0387	4.68	104	0.00
35	T	Ethylacetate	0.0107	0.0096	10.28	99	-0.01
36	T	methacrylonitrile	0.1009	0.0947	6.14	102	-0.01
37	T	Bromochlorma	0.1059	0.1090	-2.93	113	-0.01
38	T	Tetrahydofur	0.0793	0.0712	10.21	97	0.00
39	PT	Chloroform	0.3720	0.3825	-2.82	108	0.00
40	PT	111trichlota	0.3134	0.3242	-3.45	104	0.00
41	S	SURRDibrflma	0.2541	0.2532	0.35	103	0.00
42	PT	Cyclohexane	0.3886	0.4363	-12.27	108	0.00
43	PT	Carbtetraclo	0.2440	0.2542	-4.18	107	0.00
44	T	11dicloprope	0.1057	0.1135	-7.38	113	-0.01
45	S	SURR12DCAd4	0.0698	0.0696	0.29	103	-0.01
46	PT	Benzene	0.8544	0.9102	-6.53	109	0.00
47	PT	12dichlorota	0.3124	0.3015	3.49	103	-0.01
48	T	TAME	0.5752	0.5611	2.45	104	-0.01

49	PT	trichloroete	0.2262	0.2364	-4.51	108	-0.01
50	PT	methylcyclohexane	0.4119	0.4774	-15.90	111	-0.01
51	PT	12dicloropra	0.2381	0.2380	0.04	108	-0.01
52	T	23Dicl1propene	0.3450	0.3621	-4.96	111	-0.01
53	T	Dibromometha	0.1309	0.1282	2.06	103	0.00
54	T	methylmethacrylate	0.1689	0.1524	9.77	95	0.00
55	T	14dioxane	0.0033	0.0031	6.06	101	-0.01
56	PT	Bromodiclrma	0.2652	0.2680	-1.06	107	0.00
57	T	2Nitropropane	0.0544	0.0474	12.87	98	0.00
58	T	2CLEVE	0.0797	0.0635	20.33#	97	0.00
59	PT	c13dicloproe	0.3292	0.3388	-2.92	106	0.00
60	PT	4Meth2Pentan	0.2140	0.1947	9.02	96	-0.01
61	S	SURRd8Tolule	0.9777	0.9769	0.08	103	0.00
62	PT	Toluene	0.5578	0.5923	-6.19	110	-0.01
63	PT	t13Dicloprop	0.2761	0.2813	-1.88	106	0.00
64	T	ethylmethacrylate	0.2783	0.2666	4.20	99	0.00
65	PT	112Triclotha	0.1655	0.1623	1.93	103	0.00
66	PT	Tetrachlorte	0.2450	0.2628	-7.27	111	-0.01
67	T	13Diclorpropa	0.3570	0.3460	3.08	103	-0.01
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	103	0.00
69	PT	2Hexanone	0.2103	0.2047	2.66	95	0.00
70	PT	Clorodibrmta	0.2496	0.2473	0.92	108	0.00
71	PT	12Dibrometha	0.2696	0.2620	2.82	103	0.00
72	PT	Chlorobenzen	0.7934	0.8110	-2.22	107	0.00
73	T	1Clhexane	0.4115	0.4320	-4.98	107	-0.01
74	T	1112Tetclota	0.2480	0.2505	-1.01	106	0.00
75	PT	Ethylbenzene	1.3345	1.4525	-8.84	110	0.00
76	PT	m p-Xylene	0.5101	0.5554	-8.88	110	0.00
77	PT	o-Xylene	0.4987	0.5327	-6.82	110	0.00
78	PT	Styrene	0.8008	0.8591	-7.28	109	0.00
79	PT	Bromoform	0.1505	0.1454	3.39	105	0.00
80	PT	Isopropylben	1.2308	1.3615	-10.62	109	0.00
81	T	cyclohexanone	0.0460	0.0498	-8.26	108	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	106	0.00
83	S	SURR4BrFBenz	1.0216	1.0291	-0.73	106	-0.01
84	T	Bromobenzene	0.6605	0.6578	0.41	107	0.00
85	PT	1122Tetrclta	0.7076	0.6568	7.18	102	-0.01
86	T	123Triclproa	0.8708	0.8183	6.03	106	0.00
87	T	14dichloro2butene	0.1872	0.1699	9.24	102	0.00
88	T	n-Propylbenz	2.8285	3.0673	-8.44	110	0.00
89	T	2chlorotolue	1.7884	1.8721	-4.68	112	0.00
90	T	4chlorotolue	2.0141	2.1567	-7.08	111	0.00
91	T	135Trimebenz	2.0190	2.2245	-10.18	111	0.00
92	T	tbutylbenzen	1.7359	1.8777	-8.17	110	0.00
93	T	124Trimetben	1.9745	2.1140	-7.07	110	0.00
94	T	sbutylbenzen	2.3633	2.7110	-14.71	114	0.00
95	PT	13Diclorbenz	1.1651	1.2095	-3.81	111	0.00
96	T	pIsopropylto	2.0322	2.2705	-11.73	112	0.00
97	PT	14dichlorobe	1.2014	1.2106	-0.77	110	0.00
98	PT	12dichlorobe	1.1391	1.1722	-2.91	111	0.00
99	T	nButylbenzen	1.7788	1.9958	-12.20	114	0.00
100	PT	12dibromo3cl	0.1277	0.1059	17.07	102	0.00
101	T	135Trichlorobenzene	0.7976	0.8206	-2.88	113	0.00
102	PT	124Trichlobe	0.6328	0.6427	-1.56	111	0.00
103	T	Hexachlorobu	0.2779	0.3238	-16.52	123	0.00
104	T	Naphthalene	1.2088	1.0612	12.21	98	0.00
105	T	123Trichlben	0.5551	0.5459	1.66	107	0.00

(#) = Out of Range SPCC's out = 2 CCC's out = 0

W071823.M Mon Jul 24 14:40:37 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCV2.D Vial: 28
Acq On : 24 Jul 2023 7:49 Operator: DGS-RLD
Sample : 273706,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 24 08:09:52 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	104	-0.01
2	PT	Dichlorodi	10.0000	11.8096	-18.10	113	0.00
3	PT	Chloromethan	10.0000	9.1620	8.38	98	0.00
4	PT	VinylChlorid	10.0000	10.5675	-5.68	101	0.00
5	PT	Bromomethane	10.0000	10.9290	-9.29	112	0.00
6	PT	Chloroethane	10.0000	10.4650	-4.65	104	-0.01
7	T	Dichloroflmethane	10.0000	0.0000	100.00#	0	-3.18#
8	PT	Trichlorofma	10.0000	11.0272	-10.27	109	0.00
9	T	Ethylether	10.0000	9.5742	4.26	107	0.00
10	T	dichlorotfluoroethan	10.0000	0.0000	100.00#	0	-3.72#
11	T	propyleneoxide	100.0000	91.3262	8.67	101	0.00
12	T	Acrolein	50.0000	46.2250	7.55	101	-0.01
13	PT	11dichlorthe	10.0000	11.2895	-12.90	112	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.6468	-13.23	109	-0.01
15	PT	Acetone	100.0000	105.6577	-5.66	100	-0.01
16	T	Iodomethane	20.0000	20.3470	-1.74	113	-0.01
17	PT	Carbon Dislf	20.0000	23.3968	-16.98	116	0.00
18	T	allylchloride	20.0000	20.3691	-1.85	105	-0.01
19	PT	methylacetate	10.0000	9.2870	7.13	99	0.00
20	PT	Methylchlorid	10.0000	10.2229	-2.23	111	-0.01
21	T	tbutylalcohol	500.0000	416.1151	16.78	90	0.00
22	T	Acrylonitrile	50.0000	47.3917	5.22	101	-0.01
23	PT	t12dichlorte	10.0000	10.4802	-4.80	108	0.00
24	PT	MtBE	10.0000	9.9473	0.53	104	-0.01
25	T	Hexane	20.0000	20.1324	-0.66	106	-0.01
26	PT	11dichlorota	10.0000	10.3135	-3.13	108	0.00
27	T	Vinylacetate	100.0000	89.8503	10.15	96	0.00
28	T	chloroprene	20.0000	21.9227	-9.61	107	0.00
29	T	Diisopether	10.0000	10.2358	-2.36	104	-0.01
30	T	ETBE	10.0000	9.9787	0.21	104	0.00
31	T	22dichloropr	10.0000	10.2207	-2.21	107	0.00
32	PT	c12dichlorte	10.0000	10.0325	-0.33	107	0.00
33	PT	2Butanone	100.0000	99.0244	0.98	102	-0.01
34	T	propionitrile	100.0000	95.4105	4.59	104	0.00
35	T	Ethylacetate	50.0000	44.9989	10.00	99	-0.01
36	T	methacrylonitrile	20.0000	18.7681	6.16	102	-0.01
37	T	Bromochlorma	10.0000	10.2975	-2.97	113	-0.01
38	T	Tetrahydofur	100.0000	89.8253	10.17	97	0.00
39	PT	Chloroform	10.0000	10.2809	-2.81	108	0.00
40	PT	111trichlota	10.0000	10.3466	-3.47	104	0.00
41	S	SURRDibrflma	20.0000	19.9291	0.35	103	0.00
42	PT	Cyclohexane	10.0000	11.2279	-12.28	108	0.00
43	PT	Carbtetraclo	10.0000	10.4163	-4.16	107	0.00
44	T	11dicloprope	10.0000	10.7379	-7.38	113	-0.01
45	S	SURR12DCAd4	20.0000	19.9494	0.25	103	-0.01
46	PT	Benzene	10.0000	10.6530	-6.53	109	0.00
47	PT	12dichlorota	10.0000	9.6494	3.51	103	-0.01
48	T	TAME	10.0000	9.7551	2.45	104	-0.01

49	PT	trichloroete	10.0000	10.4481	-4.48	108	-0.01
50	PT	methylcyclohexane	10.0000	10.4930	-4.93	111	-0.01
51	PT	12dicloropra	10.0000	9.9970	0.03	108	-0.01
52	T	23Dicl1propene	10.0000	10.4976	-4.98	111	-0.01
53	T	Dibromometha	10.0000	9.7969	2.03	103	0.00
54	T	methylmethacrylate	10.0000	9.0242	9.76	95	0.00
55	T	14dioxane	500.0000	467.2625	6.55	101	-0.01
56	PT	Bromodiclrma	10.0000	10.1052	-1.05	107	0.00
57	T	2Nitropropane	100.0000	78.6375	21.36#	98	0.00
58	T	2CLEVE	50.0000	39.8695	20.26#	97	0.00
59	PT	c13dicloproe	10.0000	10.2933	-2.93	106	0.00
60	PT	4Meth2Pentan	100.0000	90.9660	9.03	96	-0.01
61	S	SURRd8Tolule	20.0000	19.9820	0.09	103	0.00
62	PT	Toluene	10.0000	10.6195	-6.20	110	-0.01
63	PT	t13Dicloprop	10.0000	10.1888	-1.89	106	0.00
64	T	ethylmethacrylate	20.0000	19.1612	4.19	99	0.00
65	PT	112Triclotha	10.0000	9.8054	1.95	103	0.00
66	PT	Tetrachlorte	10.0000	10.7250	-7.25	111	-0.01
67	T	13Diclorpropa	10.0000	9.6903	3.10	103	-0.01
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	103	0.00
69	PT	2Hexanone	100.0000	97.3629	2.64	95	0.00
70	PT	Clorodibrmta	10.0000	9.9056	0.94	108	0.00
71	PT	12Dibrometha	10.0000	9.7149	2.85	103	0.00
72	PT	Chlorobenzen	10.0000	10.2217	-2.22	107	0.00
73	T	1Clhexane	10.0000	10.4971	-4.97	107	-0.01
74	T	1112Tetclota	10.0000	10.0980	-0.98	106	0.00
75	PT	Ethylbenzene	10.0000	10.8838	-8.84	110	0.00
76	PT	m p-Xylene	20.0000	21.7728	-8.86	110	0.00
77	PT	o-Xylene	10.0000	10.6815	-6.81	110	0.00
78	PT	Styrene	10.0000	10.7277	-7.28	109	0.00
79	PT	Bromoform	10.0000	9.3622	6.38	105	0.00
80	PT	Isopropylben	10.0000	11.0622	-10.62	109	0.00
81	T	cyclohexanone	200.0000	216.4821	-8.24	108	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	106	0.00
83	S	SURR4BrFBenz	20.0000	20.1454	-0.73	106	-0.01
84	T	Bromobenzene	10.0000	9.9590	0.41	107	0.00
85	PT	1122Tetrclta	10.0000	9.2826	7.17	102	-0.01
86	T	123Triclproa	10.0000	9.3970	6.03	106	0.00
87	T	14dichloro2butene	10.0000	9.0766	9.23	102	0.00
88	T	n-Propylbenz	10.0000	10.8443	-8.44	110	0.00
89	T	2chlorotolue	10.0000	10.4679	-4.68	112	0.00
90	T	4chlorotolue	10.0000	10.7081	-7.08	111	0.00
91	T	135Trimebenz	10.0000	11.0176	-10.18	111	0.00
92	T	tbutylbenzen	10.0000	10.8169	-8.17	110	0.00
93	T	124Trimetben	10.0000	10.7064	-7.06	110	0.00
94	T	sbutylbenzen	10.0000	11.4711	-14.71	114	0.00
95	PT	13Diclorbenz	10.0000	10.3809	-3.81	111	0.00
96	T	pIsopropylto	10.0000	11.1725	-11.72	112	0.00
97	PT	14dichlorobe	10.0000	10.0765	-0.76	110	0.00
98	PT	12dichlorobe	10.0000	10.2905	-2.90	111	0.00
99	T	nButylbenzen	10.0000	11.2200	-12.20	114	0.00
100	PT	12dibromo3cl	10.0000	8.2959	17.04	102	0.00
101	T	135Trichlorobenzene	10.0000	10.2878	-2.88	113	0.00
102	PT	124Trichlobe	10.0000	10.1559	-1.56	111	0.00
103	T	Hexachlorobu	10.0000	11.6516	-16.52	123	0.00
104	T	Naphthalene	10.0000	7.7132	22.87#	98	0.00
105	T	123Trichlben	10.0000	9.8346	1.65	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W071823.M Mon Jul 24 14:41:01 2023

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV2.D Vial: 28
Acq On : 24 Jul 2023 7:49 Operator: DGS-RLD
Sample : 273706,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 08:09:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1084886	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	804789	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	411092	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	274707	19.929	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.25	102	75541	19.949	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1059785	19.982	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	423045	20.145	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	92915	11.8096	ug/L	97
3) Chloromethan	2.10	50	95820	9.1620	ug/L	99
4) VinylChlorid	2.24	62	104933	10.5675	ug/L	100
5) Bromomethane	2.70	94	69606	10.9290	ug/L	95
6) Chloroethane	2.86	64	67390	10.4650	ug/L	97
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	186990	11.0272	ug/L	98
9) Ethylether	3.70	59	103207	9.5742	ug/L	97
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.76	58	213512	91.3262	ug/L	100
12) Acrolein	3.83	56	120080	46.2250	ug/L	99
13) 11dichlorthe	3.98	96	112515	11.2895	ug/L	94
14) Trichlorotfluoroeth	4.02	101	246825	22.6468	ug/L	98
15) Acetone	4.05	43	593127	105.6577	ug/L	97
16) Iodomethane	4.16	142	260645	20.3470	ug/L	99
17) Carbon Dislf	4.25	76	620632	23.3968	ug/L	99
18) allylchloride	4.47	41	347583	20.3691	ug/L	98
19) methylacetate	4.52	74	32414	9.2870	ug/L	99
20) Methylchlorid	4.62	84	117560	10.2229	ug/L	96
21) tbutylalcohol	4.82	59	510257	416.1151	ug/L	97
22) Acrylonitrile	4.92	53	249006	47.3917	ug/L	97
23) t12dichlorte	5.00	96	118367	10.4802	ug/L	98
24) MtBE	5.03	73	323726	9.9473	ug/L	99
25) Hexane	5.39	57	387160	20.1324	ug/L	100
26) 11dichlorota	5.53	63	215369	10.3135	ug/L	99
27) Vinylacetate	5.62	43	2130467	89.8503	ug/L	100
28) chloroprene	5.66	53	425475	21.9227	ug/L	99
29) Diisopether	5.67	45	386202	10.2358	ug/L	94
30) ETBE	6.13	59	349286	9.9787	ug/L	100
31) 22dichloropr	6.26	77	164006	10.2207	ug/L	99
32) c12dichlorte	6.26	96	127870	10.0325	ug/L	94
33) 2Butanone	6.27	72	188002	99.0244	ug/L	98
34) propionitrile	6.31	54	210130	95.4105	ug/L	97
35) Ethylacetate	6.38	88	26080	44.9989	ug/L	96
36) methacrylonitrile	6.52	67	102746	18.7681	ug/L	97
37) Bromochlorma	6.54	128	59141	10.2975	ug/L	91
38) Tetrahydofur	6.63	42	386336	89.8253	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV2.D Vial: 28
Acq On : 24 Jul 2023 7:49 Operator: DGS-RLD
Sample : 273706,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 08:09:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	207459	10.2809	ug/L	98
40)	111trichlota	6.90	97	175877	10.3466	ug/L	100
42)	Cyclohexane	6.99	56	236673	11.2279	ug/L	100
43)	Carbtetraclo	7.11	119	137873	10.4163	ug/L	100
44)	11dicloprope	7.10	110	61593	10.7379	ug/L	95
46)	Benzene	7.35	78	493739	10.6530	ug/L	99
47)	12dichlorota	7.35	62	163521	9.6494	ug/L	98
48)	TAME	7.52	73	304379	9.7551	ug/L	98
49)	trichloroete	8.15	95	128207	10.4481	ug/L	96
50)	methylcyclohexane	8.42	83	258955	10.4930	ug/L	99
51)	12dicloropra	8.42	63	129111	9.9970	ug/L	93
52)	23Dicl1propene	8.48	75	196440	10.4976	ug/L	99
53)	Dibromometha	8.56	93	69553	9.7969	ug/L	98
54)	methylmethacrylate	8.58	69	82657	9.0242	ug/L	96
55)	14dioxane	8.59	88	83139	467.2625	ug/L	99
56)	Bromodiclrma	8.76	83	145390	10.1052	ug/L	97
57)	2Nitropropane	9.02	43	256943	78.6375	ug/L	99
58)	2CLEVE	9.15	63	172345	39.8695	ug/L	99
59)	c13dicloproe	9.33	75	183803	10.2933	ug/L	97
60)	4Meth2Pentan	9.53	43	1055972	90.9660	ug/L	99
62)	Toluene	9.78	92	321300	10.6195	ug/L	98
63)	t13Dicloprop	10.05	75	152605	10.1888	ug/L	99
64)	ethylmethacrylate	10.19	69	289263	19.1612	ug/L	98
65)	112Triclotha	10.28	83	88026	9.8054	ug/L	99
66)	Tetrachlorte	10.51	166	142534	10.7250	ug/L	98
67)	13Diclorpropa	10.50	76	187678	9.6903	ug/L	100
69)	2Hexanone	10.62	43	823830	97.3629	ug/L	99
70)	Clorodibrmta	10.81	129	99504	9.9056	ug/L	99
71)	12Dibrometha	10.96	107	105409	9.7149	ug/L	97
72)	Chlorobenzen	11.65	112	326337	10.2217	ug/L	99
73)	1Clhexane	11.63	91	173821	10.4971	ug/L	99
74)	1112Tetclota	11.76	131	100788	10.0980	ug/L	99
75)	Ethylbenzene	11.81	91	584465	10.8838	ug/L	98
76)	m p-Xylene	11.97	106	446954	21.7728	ug/L	97
77)	o-Xylene	12.52	106	214370	10.6815	ug/L	99
78)	Styrene	12.53	104	345690	10.7277	ug/L	99
79)	Bromoform	12.77	173	58516	9.3622	ug/L	97
80)	Isopropylben	13.05	105	547857	11.0622	ug/L	100
81)	cyclohexanone	13.12	55	400689	216.4821	ug/L	98
84)	Bromobenzene	13.45	156	135209	9.9590	ug/L	98
85)	1122Tetrclta	13.42	83	135002	9.2826	ug/L	98
86)	123Triclproa	13.48	75	168201	9.3970	ug/L	97
87)	14dichloro2butene	13.51	53	34926	9.0766	ug/L	96
88)	n-Propylbenz	13.63	91	630474	10.8443	ug/L	99
89)	2chlorotolue	13.75	91	384793	10.4679	ug/L	98
90)	4chlorotolue	13.90	91	443306	10.7081	ug/L	100
91)	135Trimebenz	13.89	105	457235	11.0176	ug/L	99
92)	tbutylbenzen	14.36	119	385944	10.8169	ug/L	98
93)	124Trimetben	14.43	105	434515	10.7064	ug/L	98
94)	sbutylbenzen	14.68	105	557231	11.4711	ug/L	98
95)	13Diclorbenz	14.82	146	248602	10.3809	ug/L	99
96)	pIsopropylto	14.90	119	466684	11.1725	ug/L	98
97)	14dichlorobe	14.94	146	248837	10.0765	ug/L	98
98)	12dichlorobe	15.48	146	240948	10.2905	ug/L	99
99)	nButylbenzen	15.49	91	410237	11.2200	ug/L	99
100)	12dibromo3cl	16.57	157	21773	8.2959	ug/L	98
101)	135Trichlorobenzene	16.90	180	168661	10.2878	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV2.D Vial: 28
Acq On : 24 Jul 2023 7:49 Operator: DGS-RLD
Sample : 273706,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 08:09:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	132103	10.1559	ug/L	96
103) Hexachlorobu	17.96	225	66557	11.6516	ug/L	96
104) Naphthalene	18.02	128	218133	7.7132	ug/L	100
105) 123Trichlben	18.33	180	112204	9.8346	ug/L	100

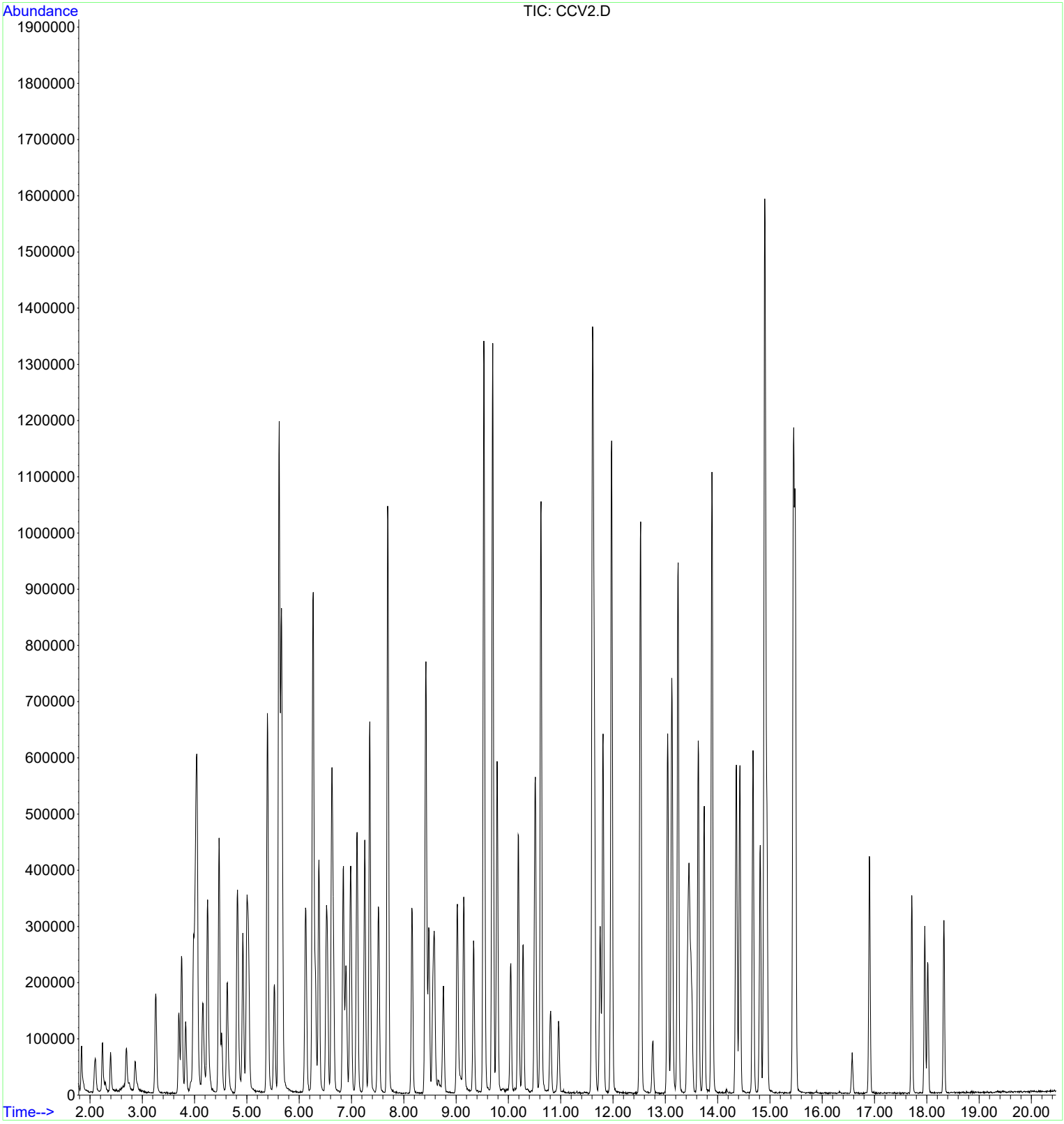
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV2.D Vial: 28
Acq On : 24 Jul 2023 7:49 Operator: DGS-RLD
Sample : 273706,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 08:09:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\CCB1.D Vial: 30
Acq On : 24 Jul 2023 8:44 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:04:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1048511	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	805543	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	389621	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	263691	19.794 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	75691	20.682 ug/L	-0.01	
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %			
61) SURRd8Tolule	9.70	98	1031445	20.122 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %			
83) SURR4BrFBenz	13.25	95	404983	20.348 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	3546	Below Cal # 44	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\CCB1.D Vial: 30
Acq On : 24 Jul 2023 8:44 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:04:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\CCB1.D Vial: 30
Acq On : 24 Jul 2023 8:44 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:04:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

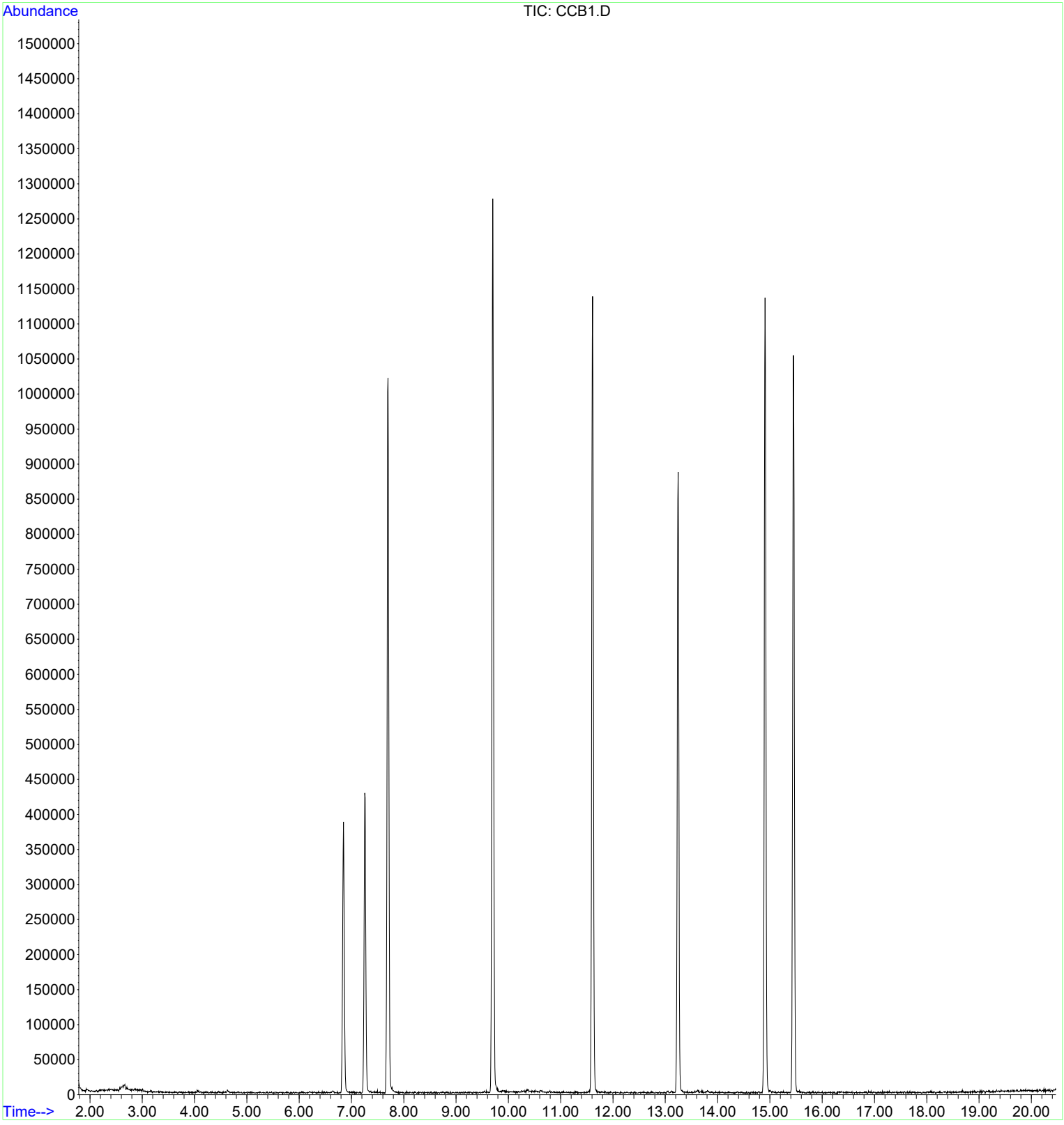
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\CCB1.D Vial: 30
Acq On : 24 Jul 2023 8:44 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:04:37 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCVF2.D Vial: 33
Acq On : 24 Jul 2023 10:07 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 24 10:28:23 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	103	-0.01
2	PT	Dichlorodi	0.1450	0.1740	-20.00	114	0.00
3	PT	Chloromethan	0.1928	0.1748	9.34	96	0.00
4	PT	VinylChlorid	0.1831	0.1896	-3.55	99	0.00
5	PT	Bromomethane	0.1143	0.1238	-8.31	108	0.00
6	PT	Chloroethane	0.1187	0.1155	2.70	96	-0.01
7	T	Dichloroflmethane	0.4825	0.0000	100.00#	0#	-3.18#
8	PT	Trichlorofma	0.3126	0.3486	-11.52	110	0.00
9	T	Ethylether	0.1987	0.1987	0.00	111	0.00
10	T	dichlorotfluoroethan	0.5454	0.0000	100.00#	0#	-3.72#
11	T	propyleneoxide	0.0431	0.0432	-0.23	111	-0.01
12	T	Acrolein	0.0479	0.0470	1.88	107	-0.01
13	PT	11dichlorthe	0.1837	0.2063	-12.30	111	0.00
14	PT	Trichlorotfluoroeth	0.2009	0.2215	-10.25	106	-0.01
15	PT	Acetone	0.1063	0.0855#	19.57	78	-0.01
16	T	Iodomethane	0.2109	0.2469	-17.07	116	-0.01
17	PT	Carbon Dislf	0.4890	0.5473	-11.92	111	0.00
18	T	allylchloride	0.3146	0.3236	-2.86	105	-0.01
19	PT	methylacetate	0.0643	0.0659#	-2.49	109	0.00
20	PT	Methylchlorid	0.2252	0.2133	5.28	108	0.00
21	T	tbutylalcohol	0.0226	0.0226	0.00	107	-0.01
22	T	Acrylonitrile	0.0969	0.0968	0.10	106	-0.01
23	PT	t12dichlorte	0.2082	0.2248	-7.97	111	-0.01
24	PT	MtBE	0.6000	0.6147	-2.45	106	-0.01
25	T	Hexane	0.3198	0.3433	-7.35	102	-0.01
26	PT	11dichlorota	0.3850	0.4001	-3.92	108	0.00
27	T	Vinylacetate	0.4243	0.3666	13.60	89	0.00
28	T	chloroprene	0.3578	0.3842	-7.38	104	-0.01
29	T	Diisopether	0.6956	0.7162	-2.96	104	-0.01
30	T	ETBE	0.6453	0.6562	-1.69	106	-0.01
31	T	22dichloropr	0.2958	0.2979	-0.71	104	0.00
32	PT	c12dichlorte	0.2350	0.2410	-2.55	108	0.00
33	PT	2Butanone	0.0350	0.0322#	8.00	94	0.00
34	T	propionitrile	0.0406	0.0416	-2.46	111	0.00
35	T	Ethylacetate	0.0107	0.0106	0.93	109	-0.01
36	T	methacrylonitrile	0.1009	0.1018	-0.89	110	-0.01
37	T	Bromochlorma	0.1059	0.1064	-0.47	110	-0.01
38	T	Tetrahydofur	0.0793	0.0772	2.65	105	-0.01
39	PT	Chloroform	0.3720	0.3856	-3.66	109	0.00
40	PT	111trichlota	0.3134	0.3395	-8.33	108	-0.01
41	S	SURRDibrflma	0.2541	0.2542	-0.04	103	-0.01
42	PT	Cyclohexane	0.3886	0.4353	-12.02	107	0.00
43	PT	Carbtetraclo	0.2440	0.2606	-6.80	109	0.00
44	T	11dicloprope	0.1057	0.1142	-8.04	113	0.00
45	S	SURR12DCAd4	0.0698	0.0691	1.00	102	-0.01
46	PT	Benzene	0.8544	0.9104	-6.55	109	0.00
47	PT	12dichlorota	0.3124	0.3069	1.76	104	0.00
48	T	TAME	0.5752	0.5826	-1.29	107	-0.01

49	PT	trichloroete	0.2262	0.2376	-5.04	108	-0.01
50	PT	methylcyclohexane	0.4119	0.4755	-15.44	110	0.00
51	PT	12dicloropra	0.2381	0.2445	-2.69	111	-0.01
52	T	23Dicl1propene	0.3450	0.3651	-5.83	111	0.00
53	T	Dibromometha	0.1309	0.1316	-0.53	106	0.00
54	T	methylmethacrylate	0.1689	0.1690	-0.06	105	0.00
55	T	14dioxane	0.0033	0.0035	-6.06	114	0.00
56	PT	Bromodiclrma	0.2652	0.2713	-2.30	107	0.00
57	T	2Nitropropane	0.0544	0.0493	9.38	102	0.00
58	T	2CLEVE	0.0797	0.0795	0.25	121	0.00
59	PT	c13dicloproe	0.3292	0.3401	-3.31	106	0.00
60	PT	4Meth2Pentan	0.2140	0.2097	2.01	103	0.00
61	S	SURRd8Tolule	0.9777	0.9916	-1.42	104	0.00
62	PT	Toluene	0.5578	0.5879	-5.40	109	-0.01
63	PT	t13Dicloprop	0.2761	0.2865	-3.77	108	0.00
64	T	ethylmethacrylate	0.2783	0.2823	-1.44	105	-0.01
65	PT	112Triclotha	0.1655	0.1652	0.18	104	0.00
66	PT	Tetrachlorte	0.2450	0.2589	-5.67	109	0.00
67	T	13Diclorpropa	0.3570	0.3536	0.95	105	-0.01
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	103	0.00
69	PT	2Hexanone	0.2103	0.2065	1.81	96	0.00
70	PT	Clorodibrmta	0.2496	0.2550	-2.16	112	0.00
71	PT	12Dibrometha	0.2696	0.2738	-1.56	107	0.00
72	PT	Chlorobenzen	0.7934	0.8229	-3.72	109	0.00
73	T	1Clhexane	0.4115	0.4544	-10.43	113	-0.01
74	T	1112Tetclota	0.2480	0.2545	-2.62	108	0.00
75	PT	Ethylbenzene	1.3345	1.4551	-9.04	111	0.00
76	PT	m p-Xylene	0.5101	0.5531	-8.43	109	0.00
77	PT	o-Xylene	0.4987	0.5371	-7.70	111	0.00
78	PT	Styrene	0.8008	0.8793	-9.80	112	0.00
79	PT	Bromoform	0.1505	0.1526	-1.40	110	-0.01
80	PT	Isopropylben	1.2308	1.3894	-12.89	112	0.00
81	T	cyclohexanone	0.0460	0.0376	18.26	82	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	106	0.00
83	S	SURR4BrFBenz	1.0216	1.0285	-0.68	106	-0.01
84	T	Bromobenzene	0.6605	0.6651	-0.70	109	0.00
85	PT	1122Tetrclta	0.7076	0.6794	3.99	106	-0.01
86	T	123Triclproa	0.8708	0.8384	3.72	109	0.00
87	T	14dichloro2butene	0.1872	0.1812	3.21	109	0.00
88	T	n-Propylbenz	2.8285	3.1343	-10.81	113	0.00
89	T	2chlorotolue	1.7884	1.8723	-4.69	113	-0.01
90	T	4chlorotolue	2.0141	2.1324	-5.87	110	0.00
91	T	135Trimebenz	2.0190	2.2358	-10.74	111	0.00
92	T	tbutylbenzen	1.7359	1.9578	-12.78	115	0.00
93	T	124Trimetben	1.9745	2.1561	-9.20	113	0.00
94	T	sbutylbenzen	2.3633	2.7313	-15.57	115	0.00
95	PT	13Diclorbenz	1.1651	1.2060	-3.51	111	0.00
96	T	pIsopropylto	2.0322	2.3009	-13.22	113	0.00
97	PT	14dichlorobe	1.2014	1.2553	-4.49	114	0.00
98	PT	12dichlorobe	1.1391	1.1555	-1.44	110	0.00
99	T	nButylbenzen	1.7788	2.0203	-13.58	116	0.00
100	PT	12dibromo3cl	0.1277	0.1244	2.58	120	0.00
101	T	135Trichlorobenzene	0.7976	0.8420	-5.57	116	0.00
102	PT	124Trichlobe	0.6328	0.6679	-5.55	116	0.00
103	T	Hexachlorobu	0.2779	0.3349	-20.51	127	0.00
104	T	Naphthalene	1.2088	1.2348	-2.15	114	0.00
105	T	123Trichlben	0.5551	0.6128	-10.39	121	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W071823.M Mon Jul 24 14:43:07 2023

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\JUL2123\CCVF2.D Vial: 33
Acq On : 24 Jul 2023 10:07 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Jul 24 10:28:23 2023

Quant Method : C:\INSTARCH\METHODS\W071823.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W071823.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	103	-0.01
2	PT	Dichlorodi	10.0000	11.9950	-19.95	114	0.00
3	PT	Chloromethan	10.0000	9.0669	9.33	96	0.00
4	PT	VinylChlorid	10.0000	10.3551	-3.55	99	0.00
5	PT	Bromomethane	10.0000	10.5148	-5.15	108	0.00
6	PT	Chloroethane	10.0000	9.7272	2.73	96	-0.01
7	T	Dichloroflmethane	10.0000	0.0000	100.00#	0	-3.18#
8	PT	Trichlorofma	10.0000	11.1510	-11.51	110	0.00
9	T	Ethylether	10.0000	9.9990	0.01	111	0.00
10	T	dichlorotfluoroethan	10.0000	0.0000	100.00#	0	-3.72#
11	T	propyleneoxide	100.0000	100.3178	-0.32	111	-0.01
12	T	Acrolein	50.0000	49.0529	1.89	107	-0.01
13	PT	11dichlorthe	10.0000	11.2309	-12.31	111	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.0437	-10.22	106	-0.01
15	PT	Acetone	100.0000	81.8446	18.16	78	-0.01
16	T	Iodomethane	20.0000	20.8543	-4.27	116	-0.01
17	PT	Carbon Dislf	20.0000	22.3848	-11.92	111	0.00
18	T	allylchloride	20.0000	20.5723	-2.86	105	-0.01
19	PT	methylacetate	10.0000	10.2343	-2.34	109	0.00
20	PT	Methylchlorid	10.0000	10.0589	-0.59	108	0.00
21	T	tbutylalcohol	500.0000	499.9076	0.02	107	-0.01
22	T	Acrylonitrile	50.0000	49.9873	0.03	106	-0.01
23	PT	t12dichlorte	10.0000	10.7949	-7.95	111	-0.01
24	PT	MtBE	10.0000	10.2456	-2.46	106	-0.01
25	T	Hexane	20.0000	19.3660	3.17	102	-0.01
26	PT	11dichlorota	10.0000	10.3944	-3.94	108	0.00
27	T	Vinylacetate	100.0000	83.2665	16.73	89	0.00
28	T	chloroprene	20.0000	21.4770	-7.39	104	-0.01
29	T	Diisopether	10.0000	10.2970	-2.97	104	-0.01
30	T	ETBE	10.0000	10.1688	-1.69	106	-0.01
31	T	22dichloropr	10.0000	10.0693	-0.69	104	0.00
32	PT	c12dichlorte	10.0000	10.2577	-2.58	108	0.00
33	PT	2Butanone	100.0000	92.0956	7.90	94	0.00
34	T	propionitrile	100.0000	102.4647	-2.46	111	0.00
35	T	Ethylacetate	50.0000	49.7292	0.54	109	-0.01
36	T	methacrylonitrile	20.0000	20.1808	-0.90	110	-0.01
37	T	Bromochlorma	10.0000	10.0523	-0.52	110	-0.01
38	T	Tetrahydofur	100.0000	97.3402	2.66	105	-0.01
39	PT	Chloroform	10.0000	10.3642	-3.64	109	0.00
40	PT	111trichlota	10.0000	10.8333	-8.33	108	-0.01
41	S	SURRDibrflma	20.0000	20.0105	-0.05	103	-0.01
42	PT	Cyclohexane	10.0000	11.2032	-12.03	107	0.00
43	PT	Carbtetraclo	10.0000	10.6812	-6.81	109	0.00
44	T	11dicloprope	10.0000	10.8035	-8.03	113	0.00
45	S	SURR12DCAd4	20.0000	19.7924	1.04	102	-0.01
46	PT	Benzene	10.0000	10.6558	-6.56	109	0.00
47	PT	12dichlorota	10.0000	9.8247	1.75	104	0.00
48	T	TAME	10.0000	10.1282	-1.28	107	-0.01

49	PT	trichloroete	10.0000	10.5033	-5.03	108	-0.01
50	PT	methylcyclohexane	10.0000	10.4527	-4.53	110	0.00
51	PT	12dicloropra	10.0000	10.2686	-2.69	111	-0.01
52	T	23Dicl1propene	10.0000	10.5828	-5.83	111	0.00
53	T	Dibromometha	10.0000	10.0544	-0.54	106	0.00
54	T	methylmethacrylate	10.0000	10.0106	-0.11	105	0.00
55	T	14dioxane	500.0000	528.4094	-5.68	114	0.00
56	PT	Bromodiclrma	10.0000	10.2272	-2.27	107	0.00
57	T	2Nitropropane	100.0000	81.4879	18.51	102	0.00
58	T	2CLEVE	50.0000	49.9020	0.20	121	0.00
59	PT	c13dicloproe	10.0000	10.3312	-3.31	106	0.00
60	PT	4Meth2Pentan	100.0000	97.9941	2.01	103	0.00
61	S	SURRd8Tolule	20.0000	20.2839	-1.42	104	0.00
62	PT	Toluene	10.0000	10.5409	-5.41	109	-0.01
63	PT	t13Dicloprop	10.0000	10.3774	-3.77	108	0.00
64	T	ethylmethacrylate	20.0000	20.2905	-1.45	105	-0.01
65	PT	112Triclotha	10.0000	9.9802	0.20	104	0.00
66	PT	Tetrachlorte	10.0000	10.5676	-5.68	109	0.00
67	T	13Diclorpropa	10.0000	9.9028	0.97	105	-0.01
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	103	0.00
69	PT	2Hexanone	100.0000	98.1857	1.81	96	0.00
70	PT	Clorodibrmta	10.0000	10.2157	-2.16	112	0.00
71	PT	12Dibrometha	10.0000	10.1544	-1.54	107	0.00
72	PT	Chlorobenzen	10.0000	10.3713	-3.71	109	0.00
73	T	1Clhexane	10.0000	11.0411	-10.41	113	-0.01
74	T	1112Tetclota	10.0000	10.2593	-2.59	108	0.00
75	PT	Ethylbenzene	10.0000	10.9034	-9.03	111	0.00
76	PT	m p-Xylene	20.0000	21.6832	-8.42	109	0.00
77	PT	o-Xylene	10.0000	10.7698	-7.70	111	0.00
78	PT	Styrene	10.0000	10.9801	-9.80	112	0.00
79	PT	Bromoform	10.0000	9.7715	2.29	110	-0.01
80	PT	Isopropylben	10.0000	11.2890	-12.89	112	0.00
81	T	cyclohexanone	200.0000	163.6391	18.18	82	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	106	0.00
83	S	SURR4BrFBenz	20.0000	20.1341	-0.67	106	-0.01
84	T	Bromobenzene	10.0000	10.0699	-0.70	109	0.00
85	PT	1122Tetrclta	10.0000	9.6028	3.97	106	-0.01
86	T	123Triclproa	10.0000	9.6281	3.72	109	0.00
87	T	14dichloro2butene	10.0000	9.6776	3.22	109	0.00
88	T	n-Propylbenz	10.0000	11.0811	-10.81	113	0.00
89	T	2chlorotolue	10.0000	10.4692	-4.69	113	-0.01
90	T	4chlorotolue	10.0000	10.5873	-5.87	110	0.00
91	T	135Trimebenz	10.0000	11.0737	-10.74	111	0.00
92	T	tbutylbenzen	10.0000	11.2787	-12.79	115	0.00
93	T	124Trimetben	10.0000	10.9200	-9.20	113	0.00
94	T	sbutylbenzen	10.0000	11.5569	-15.57	115	0.00
95	PT	13Diclorbenz	10.0000	10.3511	-3.51	111	0.00
96	T	pIsopropylto	10.0000	11.3221	-13.22	113	0.00
97	PT	14dichlorobe	10.0000	10.4484	-4.48	114	0.00
98	PT	12dichlorobe	10.0000	10.1440	-1.44	110	0.00
99	T	nButylbenzen	10.0000	11.3576	-13.58	116	0.00
100	PT	12dibromo3cl	10.0000	9.7444	2.56	120	0.00
101	T	135Trichlorobenzene	10.0000	10.5571	-5.57	116	0.00
102	PT	124Trichlobe	10.0000	10.5538	-5.54	116	0.00
103	T	Hexachlorobu	10.0000	12.0513	-20.51	127	0.00
104	T	Naphthalene	10.0000	8.8351	11.65	114	0.00
105	T	123Trichlben	10.0000	11.0405	-10.40	121	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W071823.M Mon Jul 24 14:43:33 2023

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF2.D Vial: 33
Acq On : 24 Jul 2023 10:07 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:28:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1079708	20.00 ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	805468	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	412011	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.84	113	274513	20.010 ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.25	102	74589	19.792 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %		
61) SURRd8Tolule	9.70	98	1070661	20.284 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.24	95	423754	20.134 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	93923	11.9950 ug/L	99
3) Chloromethan	2.10	50	94373	9.0669 ug/L	96
4) VinylChlorid	2.24	62	102333	10.3551 ug/L	98
5) Bromomethane	2.70	94	66822	10.5148 ug/L	97
6) Chloroethane	2.86	64	62340	9.7272 ug/L	99
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	188186	11.1510 ug/L	97
9) Ethylether	3.70	59	107272	9.9990 ug/L	98
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	3.75	58	233414	100.3178 ug/L	98
12) Acrolein	3.83	56	126818	49.0529 ug/L	96
13) 11dichlorthe	3.98	96	111397	11.2309 ug/L	95
14) Trichlorotfluoroeth	4.02	101	239105	22.0437 ug/L	100
15) Acetone	4.05	43	461816	81.8446 ug/L	96
16) Iodomethane	4.16	142	266540	20.8543 ug/L	98
17) Carbon Dislf	4.25	76	590951	22.3848 ug/L	100
18) allylchloride	4.47	41	349376	20.5723 ug/L	99
19) methylacetate	4.52	74	35550	10.2343 ug/L	99
20) Methylchlorid	4.63	84	115165	10.0589 ug/L	98
21) tbutylalcohol	4.81	59	610081	499.9076 ug/L	98
22) Acrylonitrile	4.92	53	261390	49.9873 ug/L	97
23) t12dichlorte	5.00	96	121339	10.7949 ug/L	97
24) MtBE	5.03	73	331843	10.2456 ug/L	99
25) Hexane	5.39	57	370611	19.3660 ug/L	98
26) 11dichlorota	5.53	63	216022	10.3944 ug/L	100
27) Vinylacetate	5.62	43	1979171	83.2665 ug/L	99
28) chloroprene	5.65	53	414836	21.4770 ug/L	97
29) Diisopether	5.67	45	386656	10.2970 ug/L	99
30) ETBE	6.12	59	354242	10.1688 ug/L	99
31) 22dichloropr	6.27	77	160805	10.0693 ug/L	100
32) c12dichlorte	6.26	96	130116	10.2577 ug/L	98
33) 2Butanone	6.27	72	174013	92.0956 ug/L	99
34) propionitrile	6.31	54	224589	102.4647 ug/L	98
35) Ethylacetate	6.38	88	28684	49.7292 ug/L	94
36) methacrylonitrile	6.52	67	109953	20.1808 ug/L	97
37) Bromochlorma	6.54	128	57457	10.0523 ug/L	94
38) Tetrahydofur	6.62	42	416659	97.3402 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF2.D Vial: 33
Acq On : 24 Jul 2023 10:07 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:28:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	208142	10.3642	ug/L	100
40)	111trichlota	6.90	97	183272	10.8333	ug/L	97
42)	Cyclohexane	6.99	56	235025	11.2032	ug/L	98
43)	Carbtetraclo	7.11	119	140705	10.6812	ug/L	98
44)	11dicloprope	7.11	110	61674	10.8035	ug/L	98
46)	Benzene	7.35	78	491509	10.6558	ug/L	99
47)	12dichlorota	7.35	62	165697	9.8247	ug/L	99
48)	TAME	7.52	73	314514	10.1282	ug/L	98
49)	trichloroete	8.15	95	128269	10.5033	ug/L	96
50)	methylcyclohexane	8.43	83	256714	10.4527	ug/L	99
51)	12dicloropra	8.42	63	131986	10.2686	ug/L	98
52)	23Dicl1propene	8.48	75	197089	10.5828	ug/L	98
53)	Dibromometha	8.56	93	71040	10.0544	ug/L	96
54)	methylmethacrylate	8.58	69	91254	10.0106	ug/L	98
55)	14dioxane	8.60	88	93570	528.4094	ug/L	96
56)	Bromodiclrma	8.76	83	146442	10.2272	ug/L	98
57)	2Nitropropane	9.02	43	266387	81.4879	ug/L	99
58)	2CLEVE	9.15	63	214683	49.9020	ug/L	99
59)	c13dicloproe	9.33	75	183600	10.3312	ug/L	100
60)	4Meth2Pentan	9.54	43	1132127	97.9941	ug/L	98
62)	Toluene	9.79	92	317401	10.5409	ug/L	99
63)	t13Dicloprop	10.05	75	154689	10.3774	ug/L	98
64)	ethylmethacrylate	10.19	69	304849	20.2905	ug/L	99
65)	112Triclotha	10.28	83	89167	9.9802	ug/L	98
66)	Tetrachlorte	10.52	166	139771	10.5676	ug/L	98
67)	13Diclorpropa	10.50	76	190878	9.9028	ug/L	99
69)	2Hexanone	10.62	43	831493	98.1857	ug/L	98
70)	Clorodibrmta	10.81	129	102706	10.2157	ug/L	99
71)	12Dibrometha	10.96	107	110271	10.1544	ug/L	99
72)	Chlorobenzen	11.65	112	331393	10.3713	ug/L	99
73)	1Clhexane	11.63	91	182983	11.0411	ug/L	97
74)	1112Tetclota	11.76	131	102485	10.2593	ug/L	98
75)	Ethylbenzene	11.81	91	586016	10.9034	ug/L	99
76)	m p-Xylene	11.98	106	445490	21.6832	ug/L	98
77)	o-Xylene	12.52	106	216324	10.7698	ug/L	98
78)	Styrene	12.53	104	354122	10.9801	ug/L	97
79)	Bromoform	12.76	173	61441	9.7715	ug/L	96
80)	Isopropylben	13.05	105	559563	11.2890	ug/L	99
81)	cyclohexanone	13.13	55	303137	163.6391	ug/L	98
84)	Bromobenzene	13.45	156	137020	10.0699	ug/L	98
85)	1122Tetrclta	13.42	83	139970	9.6028	ug/L	98
86)	123Triclproa	13.49	75	172722	9.6281	ug/L	98
87)	14dichloro2butene	13.51	53	37322	9.6776	ug/L	98
88)	n-Propylbenz	13.63	91	645685	11.0811	ug/L	99
89)	2chlorotolue	13.74	91	385702	10.4692	ug/L	99
90)	4chlorotolue	13.90	91	439285	10.5873	ug/L	99
91)	135Trimebenz	13.89	105	460591	11.0737	ug/L	98
92)	tbutylbenzen	14.35	119	403322	11.2787	ug/L	100
93)	124Trimetben	14.43	105	444175	10.9200	ug/L	99
94)	sbutylbenzen	14.68	105	562654	11.5569	ug/L	99
95)	13Diclorbenz	14.82	146	248441	10.3511	ug/L	99
96)	pIsopropylto	14.89	119	473991	11.3221	ug/L	99
97)	14dichlorobe	14.94	146	258597	10.4484	ug/L	96
98)	12dichlorobe	15.48	146	238048	10.1440	ug/L	98
99)	nButylbenzen	15.49	91	416197	11.3576	ug/L	99
100)	12dibromo3cl	16.57	157	25632	9.7444	ug/L	95
101)	135Trichlorobenzene	16.90	180	173462	10.5571	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF2.D Vial: 33
Acq On : 24 Jul 2023 10:07 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:28:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	137585	10.5538	ug/L	99
103) Hexachlorobu	17.97	225	68994	12.0513	ug/L	96
104) Naphthalene	18.02	128	254382	8.8351	ug/L	99
105) 123Trichlben	18.33	180	126244	11.0405	ug/L	95

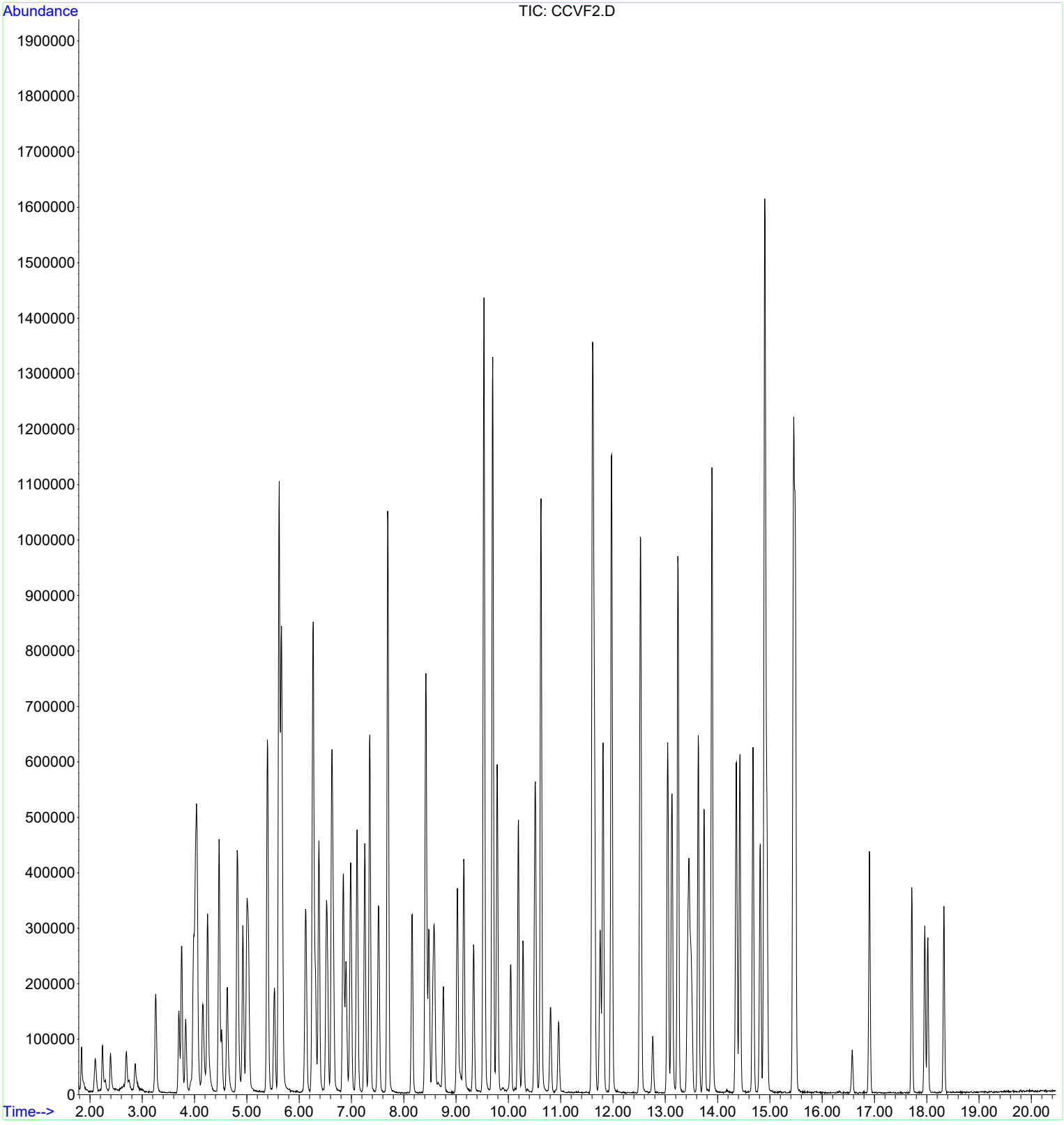
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCVF2.D Vial: 33
Acq On : 24 Jul 2023 10:07 Operator: DGS-RLD
Sample : 273706,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:28:23 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\072023 - 273815.seq
User : DGS
Printed : Jul 20, 2023 11:27:22

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\072023 -\002.dat	273815,CCV,	Jul 20, 2023 11:27:22

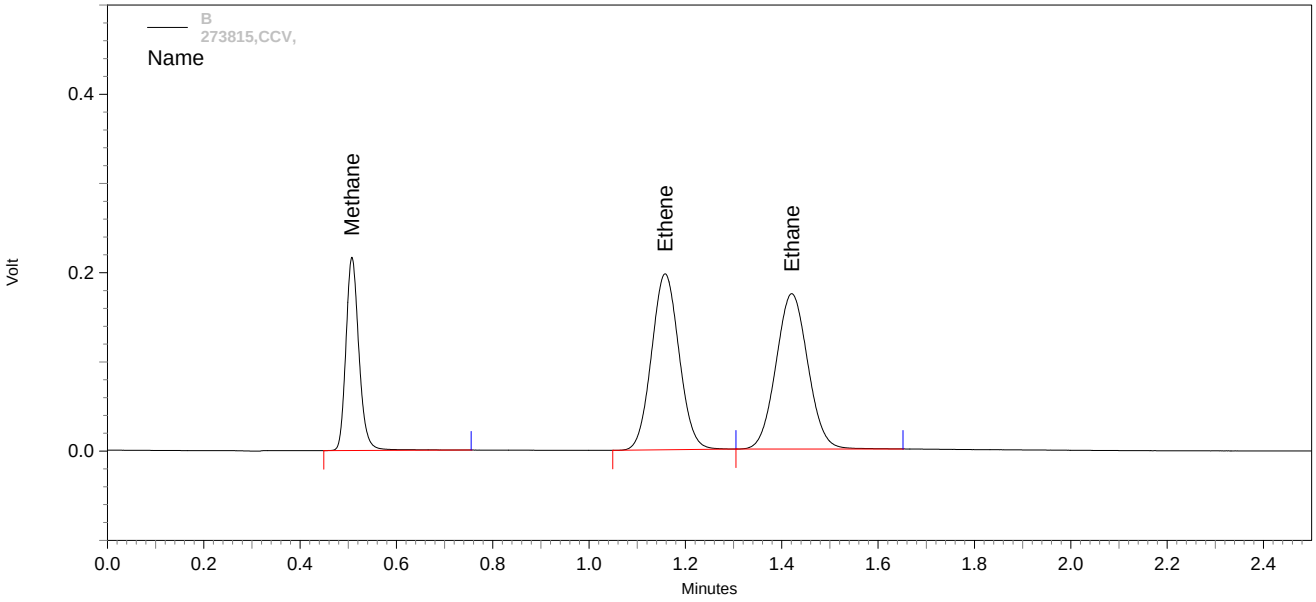
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	50.257	0.514	15.000	**Passed**
Ethene	50.000	52.607	5.215	15.000	**Passed**
Ethane	50.000	53.358	6.716	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,CCV,
Acquired: Jul 20, 2023 09:33:06
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.508**	**0.515**	**408843**	**50.257**	**ppmV**
2	**Ethene**	**1.158**	**1.165**	**784135**	**52.607**	**ppmV**
3	**Ethane**	**1.421**	**1.428**	**801481**	**53.358**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\072023 - 273815.seq
User : DGS
Printed : Jul 20, 2023 11:28:24

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\072023 -\017.dat	273815,CCV,	Jul 20, 2023 11:28:24

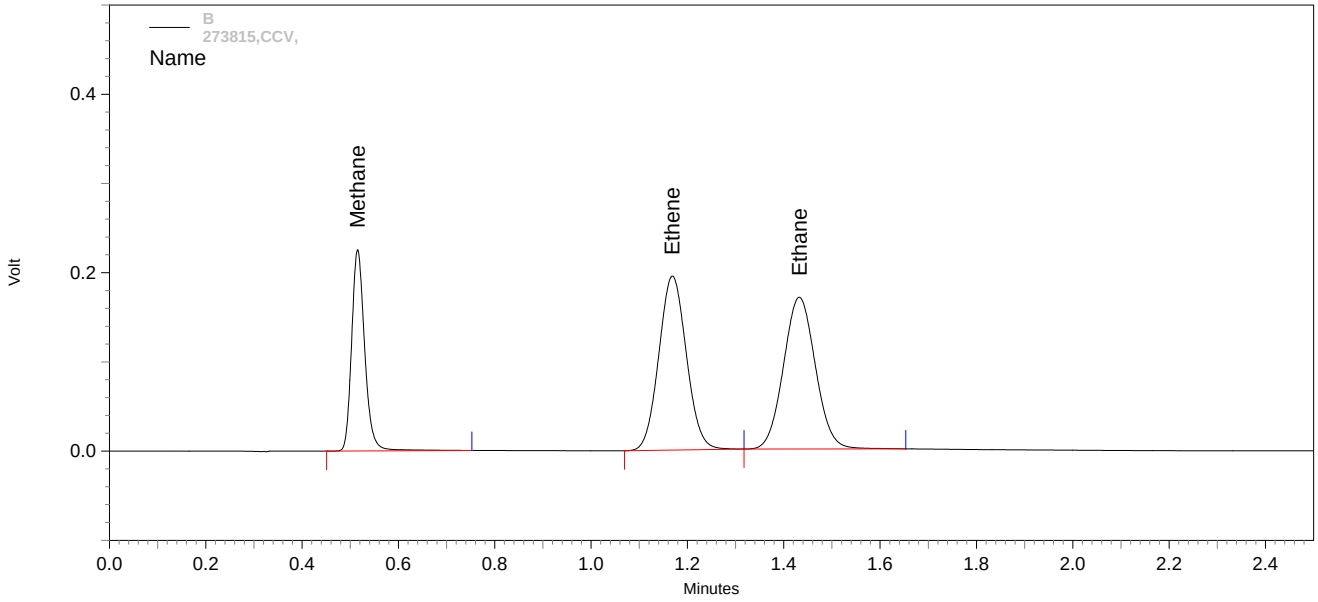
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	52.555	5.109	15.000	**Passed**
Ethene	50.000	52.032	4.065	15.000	**Passed**
Ethane	50.000	52.153	4.305	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\017.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,CCV,
Acquired: Jul 20, 2023 10:45:39
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.515**	**0.515**	**427192**	**52.555**	**ppmV**
2	**Ethene**	**1.168**	**1.165**	**775699**	**52.032**	**ppmV**
3	**Ethane**	**1.433**	**1.428**	**783644**	**52.153**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\072023 - 273815.seq
User : DGS
Printed : Jul 20, 2023 11:28:46

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\072023 -\022.dat	273815,CCV,	Jul 20, 2023 11:28:45

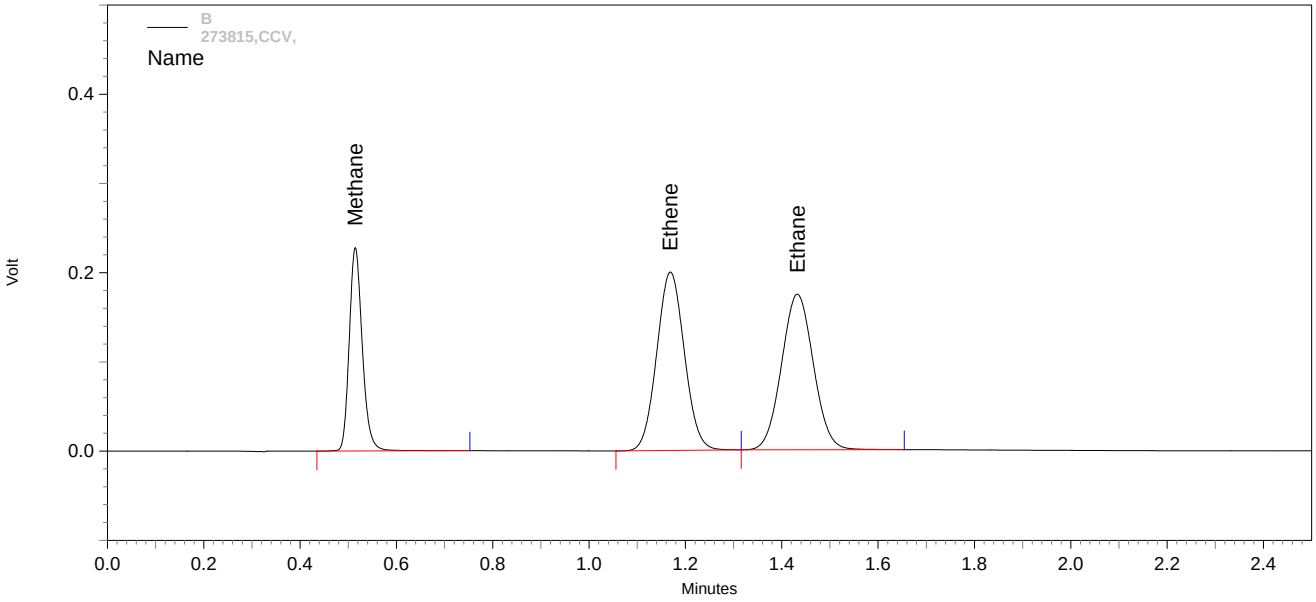
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	52.944	5.888	15.000	**Passed**
Ethene	50.000	53.379	6.758	15.000	**Passed**
Ethane	50.000	53.347	6.694	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\022.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,CCV,
Acquired: Jul 20, 2023 11:19:04
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.514**	**0.515**	**430304**	**52.944**	**ppmV**
2	**Ethene**	**1.168**	**1.165**	**795458**	**53.379**	**ppmV**
3	**Ethane**	**1.433**	**1.428**	**801318**	**53.347**	**ppmV**

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1051828	20.00 ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	780914	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	397436	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	270671	20.253 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.25	102	76870	20.938 ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %		
61) SURRd8Tolule	9.70	98	1038925	20.204 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.24	95	408664	20.129 ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	95738	12.5509 ug/L	99
3) Chloromethan	2.10	50	98095	9.6743 ug/L	100
4) VinylChlorid	2.24	62	104267	10.8304 ug/L	99
5) Bromomethane	2.70	94	69876	11.3452 ug/L	96
6) Chloroethane	2.86	64	66693	10.6822 ug/L	99
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	185113	11.2596 ug/L	99
9) Ethylether	3.70	59	99480	9.5185 ug/L	96
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	3.76	58	214401	94.5887 ug/L	97
12) Acrolein	3.83	56	124095	49.2719 ug/L	99
13) 11dichlorthe	3.98	96	106303	11.0014 ug/L	99
14) Trichlorotfluoroeth	4.02	101	244312	23.1208 ug/L	98
15) Acetone	4.05	43	586830	107.9154 ug/L	97
16) Iodomethane	4.16	142	230749	18.7478 ug/L	97
17) Carbon Dislf	4.25	76	595759	23.1650 ug/L	100
18) allylchloride	4.47	41	349244	21.1097 ug/L	99
19) methylacetate	4.52	74	31271	9.2411 ug/L	99
20) Methylchlorid	4.63	84	113075	10.1400 ug/L	98
21) tbutylalcohol	4.82	59	543363	457.0397 ug/L	100
22) Acrylonitrile	4.92	53	248973	48.8747 ug/L	97
23) t12dichlorte	5.00	96	114352	10.4429 ug/L	99
24) MtBE	5.03	73	309339	9.8040 ug/L	98
25) Hexane	5.39	57	418310	22.4401 ug/L	100
26) 11dichlorota	5.53	63	207908	10.2692 ug/L	99
27) Vinylacetate	5.62	43	2241581	98.4189 ug/L	99
28) chloroprene	5.66	53	422487	22.4529 ug/L	98
29) Diisopether	5.67	45	378035	10.3342 ug/L	98
30) ETBE	6.13	59	339839	10.0140 ug/L	99
31) 22dichloropr	6.27	77	169778	10.9129 ug/L	99
32) c12dichlorte	6.26	96	127251	10.2977 ug/L	97
33) 2Butanone	6.27	72	183928	99.9233 ug/L	99
34) propionitrile	6.31	54	212085	99.3247 ug/L	97
35) Ethylacetate	6.38	88	25699	45.7351 ug/L #	90
36) methacrylonitrile	6.52	67	107583	20.2692 ug/L	96
37) Bromochlorma	6.54	128	56709	10.1844 ug/L	93
38) Tetrahydofur	6.62	42	402026	96.4111 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	203342	10.3936	ug/L	99
40)	111trichlota	6.90	97	175423	10.6442	ug/L	99
42)	Cyclohexane	6.99	56	236287	11.5619	ug/L	99
43)	Carbtetraclo	7.11	119	137171	10.6889	ug/L	100
44)	11dicloprope	7.10	110	60994	10.9676	ug/L	96
46)	Benzene	7.35	78	478577	10.6504	ug/L	99
47)	12dichlorota	7.35	62	167848	10.2160	ug/L	99
48)	TAME	7.52	73	299355	9.8956	ug/L	98
49)	trichloroete	8.16	95	124436	10.4595	ug/L	97
50)	methylcyclohexane	8.42	83	255519	10.6763	ug/L	98
51)	12dicloropra	8.42	63	128192	10.2378	ug/L	95
52)	23Dicl1propene	8.48	75	189298	10.4339	ug/L	99
53)	Dibromometha	8.55	93	69556	10.1053	ug/L	97
54)	methylmethacrylate	8.58	69	86644	9.7568	ug/L	98
55)	14dioxane	8.59	88	86632	502.1967	ug/L	99
56)	Bromodiclrma	8.76	83	140539	10.0751	ug/L	97
57)	2Nitropropane	9.02	43	258515	81.2154	ug/L	100
58)	2CLEVE	9.15	63	195365	46.6153	ug/L	99
59)	c13dicloproe	9.33	75	180218	10.4097	ug/L	97
60)	4Meth2Pentan	9.53	43	1092240	97.0475	ug/L	99
62)	Toluene	9.79	92	306593	10.4519	ug/L	99
63)	t13Dicloprop	10.04	75	148707	10.2405	ug/L	97
64)	ethylmethacrylate	10.19	69	297610	20.3338	ug/L	99
65)	112Triclotha	10.28	83	87533	10.0570	ug/L	99
66)	Tetrachlorte	10.52	166	142805	11.0832	ug/L	98
67)	13Diclorpropa	10.50	76	182751	9.7325	ug/L	99
69)	2Hexanone	10.62	43	851667	103.7301	ug/L	99
70)	Clorodibrmta	10.81	129	100728	10.3340	ug/L	96
71)	12Dibrometha	10.96	107	106520	10.1174	ug/L	99
72)	Chlorobenzen	11.65	112	324163	10.4640	ug/L	100
73)	1Clhexane	11.63	91	173723	10.8120	ug/L	98
74)	1112Tetclota	11.75	131	99563	10.2802	ug/L	98
75)	Ethylbenzene	11.81	91	569946	10.9379	ug/L	98
76)	m p-Xylene	11.98	106	442139	22.1967	ug/L	95
77)	o-Xylene	12.52	106	211342	10.8526	ug/L	97
78)	Styrene	12.53	104	341862	10.9332	ug/L	99
79)	Bromoform	12.77	173	58152	9.5637	ug/L	96
80)	Isopropylben	13.05	105	535939	11.1524	ug/L	100
81)	cyclohexanone	13.12	55	397234	221.1769	ug/L	99
84)	Bromobenzene	13.45	156	133416	10.1646	ug/L	98
85)	1122Tetrclta	13.42	83	139044	9.8891	ug/L	99
86)	123Triclproa	13.48	75	174401	10.0782	ug/L	95
87)	14dichloro2butene	13.51	53	38218	10.2734	ug/L	99
88)	n-Propylbenz	13.63	91	631458	11.2344	ug/L	99
89)	2chlorotolue	13.74	91	379215	10.6706	ug/L	99
90)	4chlorotolue	13.89	91	435657	10.8849	ug/L	100
91)	135Trimebenz	13.89	105	447889	11.1632	ug/L	99
92)	tbutylbenzen	14.35	119	385048	11.1626	ug/L	100
93)	124Trimetben	14.42	105	437845	11.1592	ug/L	99
94)	sbutylbenzen	14.68	105	551053	11.7337	ug/L	97
95)	13Diclorbenz	14.82	146	248016	10.7123	ug/L	98
96)	pIsopropylto	14.89	119	471233	11.6690	ug/L	100
97)	14dichlorobe	14.94	146	247789	10.3788	ug/L	97
98)	12dichlorobe	15.48	146	230062	10.1632	ug/L	97
99)	nButylbenzen	15.49	91	416186	11.7738	ug/L	99
100)	12dibromo3cl	16.57	157	23183	9.1366	ug/L	99
101)	135Trichlorobenzene	16.90	180	170681	10.7688	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	133719	10.6334	ug/L	99
103) Hexachlorobu	17.96	225	69139	12.5195	ug/L	96
104) Naphthalene	18.02	128	223483	8.1224	ug/L	99
105) 123Trichlben	18.33	180	113849	10.3216	ug/L	98

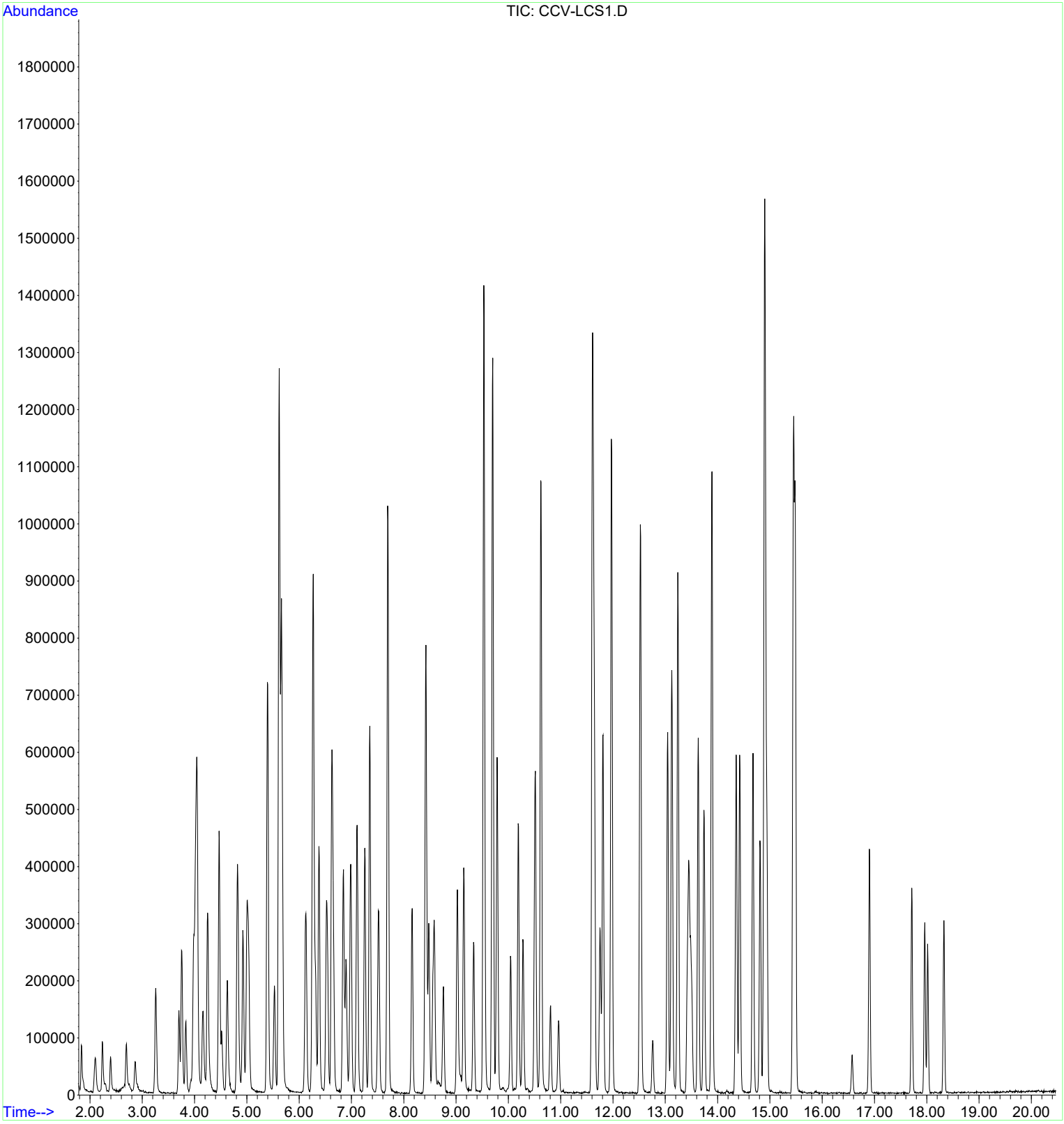
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\JUL2123\CCV-LCS1.D Vial: 3
Acq On : 21 Jul 2023 14:17 Operator: DGS-RLD
Sample : 273706,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 14:37:39 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\MB1.D Vial: 6
Acq On : 21 Jul 2023 15:40 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:00:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1039035	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	787389	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	382410	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	261546	19.812	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	71363	19.678	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 98 %			
61) SURRd8Tolule	9.70	98	1013633	19.955	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %			
83) SURR4BrFBenz	13.25	95	394475	20.194	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	3706	Below Cal # 44	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\MB1.D Vial: 6
Acq On : 21 Jul 2023 15:40 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:00:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\MB1.D Vial: 6
Acq On : 21 Jul 2023 15:40 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:00:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

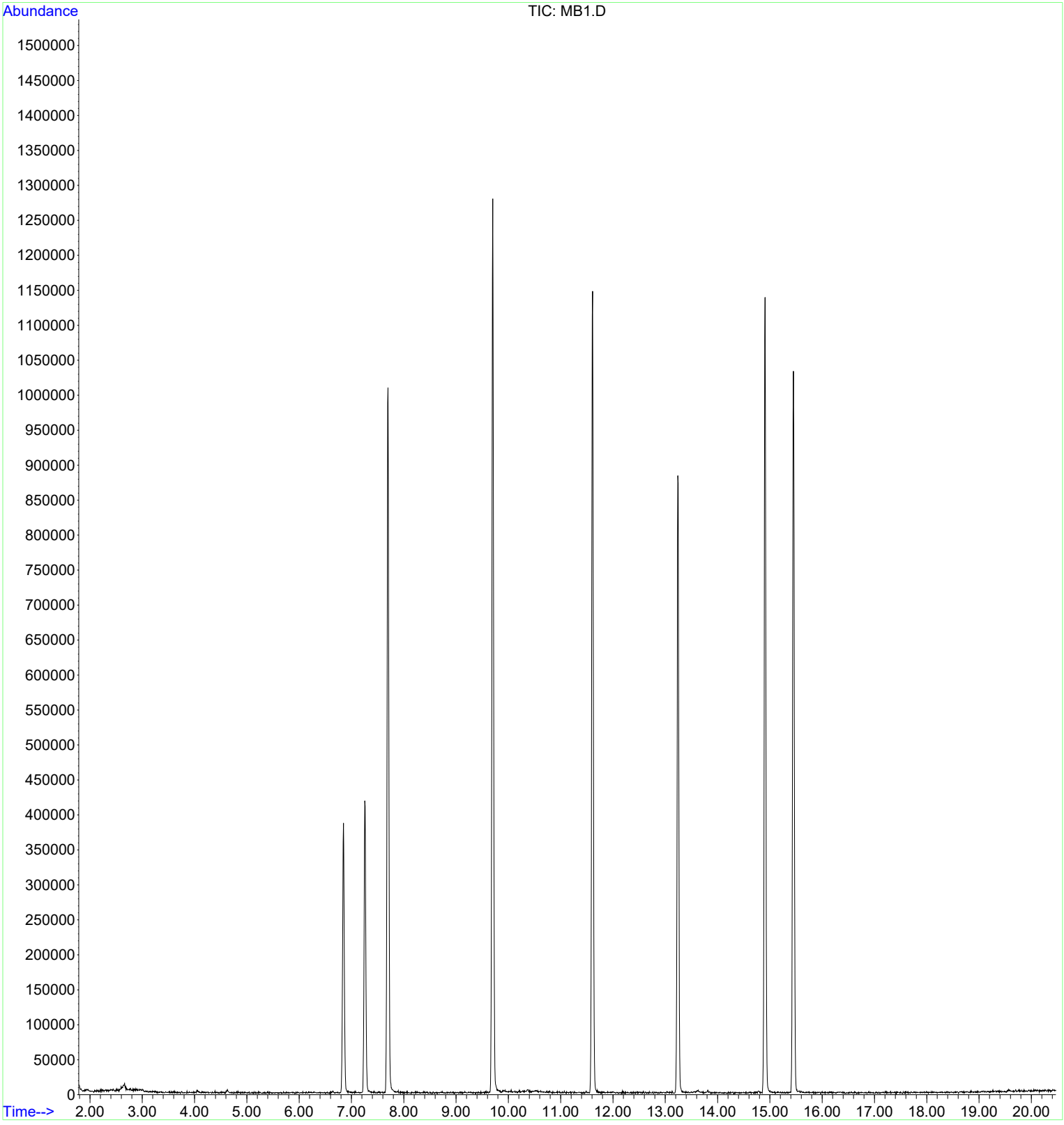
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\MB1.D Vial: 6
Acq On : 21 Jul 2023 15:40 Operator: DGS-RLD
Sample : 273706,MBW, Inst : VMS3
Misc : pH<2, 5.0 mL Purged DI H2O + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 21 16:00:52 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821M.D Vial: 31
Acq On : 24 Jul 2023 9:12 Operator: DGS-RLD
Sample : 273706,MSW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:33:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1068558	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	807279	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	409252	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	276725	20.382	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	75462	20.233	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1063340	20.355	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.24	95	412975	19.754	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	95637	12.3413	ug/L	98
3) Chloromethan	2.10	50	100631	9.7690	ug/L	99
4) VinylChlorid	2.24	62	111971	11.4486	ug/L	98
5) Bromomethane	2.70	94	70484	11.2588	ug/L	97
6) Chloroethane	2.87	64	71079	11.2065	ug/L	92
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	201056	12.0379	ug/L	97
9) Ethylether	3.70	59	95882	9.0306	ug/L	95
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	111700	43.6561	ug/L	99
13) 11dichlorthe	3.99	96	114534	11.6677	ug/L	99
14) Trichlorotfluoroeth	4.03	101	251228	23.4030	ug/L	99
15) Acetone	4.05	43	370510	65.8233	ug/L	99
16) Iodomethane	4.17	142	273177	21.5290	ug/L	99
17) Carbon Dislf	4.25	76	629785	24.1047	ug/L	98
18) allylchloride	4.47	41	370140	22.0224	ug/L	98
19) methylacetate	4.53	74	34815	10.1273	ug/L	98
20) Methylchlorid	4.63	84	119189	10.5302	ug/L	97
21) tbutylalcohol	4.83	59	510807	422.9289	ug/L	100
22) Acrylonitrile	4.93	53	245563	47.4506	ug/L	96
23) t12dichlorte	5.00	96	126986	11.4151	ug/L	98
24) MtBE	5.03	73	322417	10.0585	ug/L	100
25) Hexane	5.40	57	421921	22.2787	ug/L	100
26) 11dichlorota	5.53	63	222290	10.8076	ug/L	98
27) Vinylacetate	5.62	43	2231712	96.2225	ug/L	99
28) chloroprene	5.66	53	447172	23.3927	ug/L	98
29) Diisopether	5.68	45	399155	10.7407	ug/L	98
30) ETBE	6.13	59	360428	10.4544	ug/L	99
31) 22dichloropr	6.27	77	179627	11.3652	ug/L	99
32) c12dichlorte	6.26	96	136959	10.9098	ug/L	99
33) 2Butanone	6.27	72	153240	81.9479	ug/L	100
34) propionitrile	6.32	54	208054	95.9114	ug/L	98
35) Ethylacetate	6.38	88	25527	44.7177	ug/L #	93
36) methacrylonitrile	6.52	67	107537	19.9434	ug/L	94
37) Bromochlorma	6.54	128	60384	10.6746	ug/L	95
38) Tetrahydofur	6.63	42	390705	92.2292	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821M.D Vial: 31
Acq On : 24 Jul 2023 9:12 Operator: DGS-RLD
Sample : 273706,MSW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:33:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.66	83	215641	10.8496 ug/L	99
40) 111trichlota	6.90	97	186175	11.1197 ug/L	99
42) Cyclohexane	6.99	56	245143	11.8074 ug/L	99
43) Carbtetraclo	7.12	119	144725	11.1010 ug/L	99
44) 11dicloprope	7.11	110	67433	11.9356 ug/L	91
46) Benzene	7.35	78	514559	11.2719 ug/L	98
47) 12dichlorota	7.35	62	171212	10.2576 ug/L	99
48) TAME	7.52	73	310916	10.1168 ug/L	98
49) trichloroete	8.16	95	144374	11.9454 ug/L	96
50) methylcyclohexane	8.42	83	264742	10.8855 ug/L	100
51) 12dicloropra	8.42	63	133970	10.5317 ug/L	91
52) 23Dicl1propene	8.48	75	203016	11.0148 ug/L	99
53) Dibromometha	8.56	93	73772	10.5500 ug/L	97
54) methylmethacrylate	8.59	69	86799	9.6212 ug/L	99
55) 14dioxane	8.59	88	79441	453.3012 ug/L	95
56) Bromodiclrma	8.76	83	148289	10.4642 ug/L	99
57) 2Nitropropane	9.02	43	242862	75.8824 ug/L	99
58) 2CLEVE	0.00	63	0	N.D.	
59) c13dicloproe	9.33	75	190132	10.8104 ug/L	99
60) 4Meth2Pentan	9.54	43	1055963	92.3552 ug/L	98
62) Toluene	9.78	92	339665	11.3980 ug/L	98
63) t13Dicloprop	10.05	75	158483	10.7429 ug/L	99
64) ethylmethacrylate	10.19	69	285530	19.2030 ug/L	99
65) 112Triclotha	10.28	83	89858	10.1625 ug/L	99
66) Tetrachlorte	10.52	166	152186	11.6263 ug/L	98
67) 13Diclorpropa	10.51	76	192375	10.0846 ug/L	100
69) 2Hexanone	10.62	43	752761	88.6893 ug/L	99
70) Clorodibrmta	10.81	129	100273	9.9513 ug/L	98
71) 12Dibrometha	10.97	107	108427	9.9622 ug/L	98
72) Chlorobenzen	11.65	112	345821	10.7985 ug/L	99
73) 1Clhexane	11.63	91	190441	11.4654 ug/L	98
74) 1112Tetclota	11.76	131	100536	10.0416 ug/L	97
75) Ethylbenzene	11.81	91	614680	11.4111 ug/L	99
76) m p-Xylene	11.97	106	473328	22.9865 ug/L	96
77) o-Xylene	12.52	106	225622	11.2075 ug/L	99
78) Styrene	12.53	104	366714	11.3450 ug/L	99
79) Bromoform	12.76	173	58216	9.2938 ug/L	97
80) Isopropylben	13.05	105	586407	11.8041 ug/L	100
81) cyclohexanone	13.12	55	78423	42.2393 ug/L	96
84) Bromobenzene	13.46	156	139053	10.2882 ug/L	99
85) 1122Tetrclta	13.42	83	136312	9.4148 ug/L	98
86) 123Triclproa	13.48	75	164787	9.2477 ug/L	100
87) 14dichloro2butene	13.51	53	35771	9.3380 ug/L	96
88) n-Propylbenz	13.63	91	685736	11.8478 ug/L	100
89) 2chlorotolue	13.74	91	404564	11.0552 ug/L	99
90) 4chlorotolue	13.89	91	471713	11.4455 ug/L	98
91) 135Trimebenz	13.89	105	482151	11.6702 ug/L	98
92) tbutylbenzen	14.36	119	422540	11.8958 ug/L	100
93) 124Trimetben	14.42	105	463014	11.4599 ug/L	98
94) sbutylbenzen	14.68	105	601334	12.4347 ug/L	97
95) 13Diclorbenz	14.82	146	266365	11.1727 ug/L	99
96) pIsopropylto	14.89	119	506012	12.1684 ug/L	97
97) 14dichlorobe	14.94	146	264693	10.7668 ug/L	99
98) 12dichlorobe	15.48	146	242369	10.3977 ug/L	99
99) nButylbenzen	15.49	91	462499	12.7063 ug/L	100
100) 12dibromo3cl	16.57	157	22642	8.6658 ug/L	99
101) 135Trichlorobenzene	16.90	180	184397	11.2983 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821M.D Vial: 31
Acq On : 24 Jul 2023 9:12 Operator: DGS-RLD
Sample : 273706,MSW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:33:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	135875	10.4929	ug/L	99
103) Hexachlorobu	17.96	225	75076	13.2021	ug/L	97
104) Naphthalene	18.02	128	224229	7.9362	ug/L	100
105) 123Trichlben	18.33	180	114463	10.0777	ug/L	99

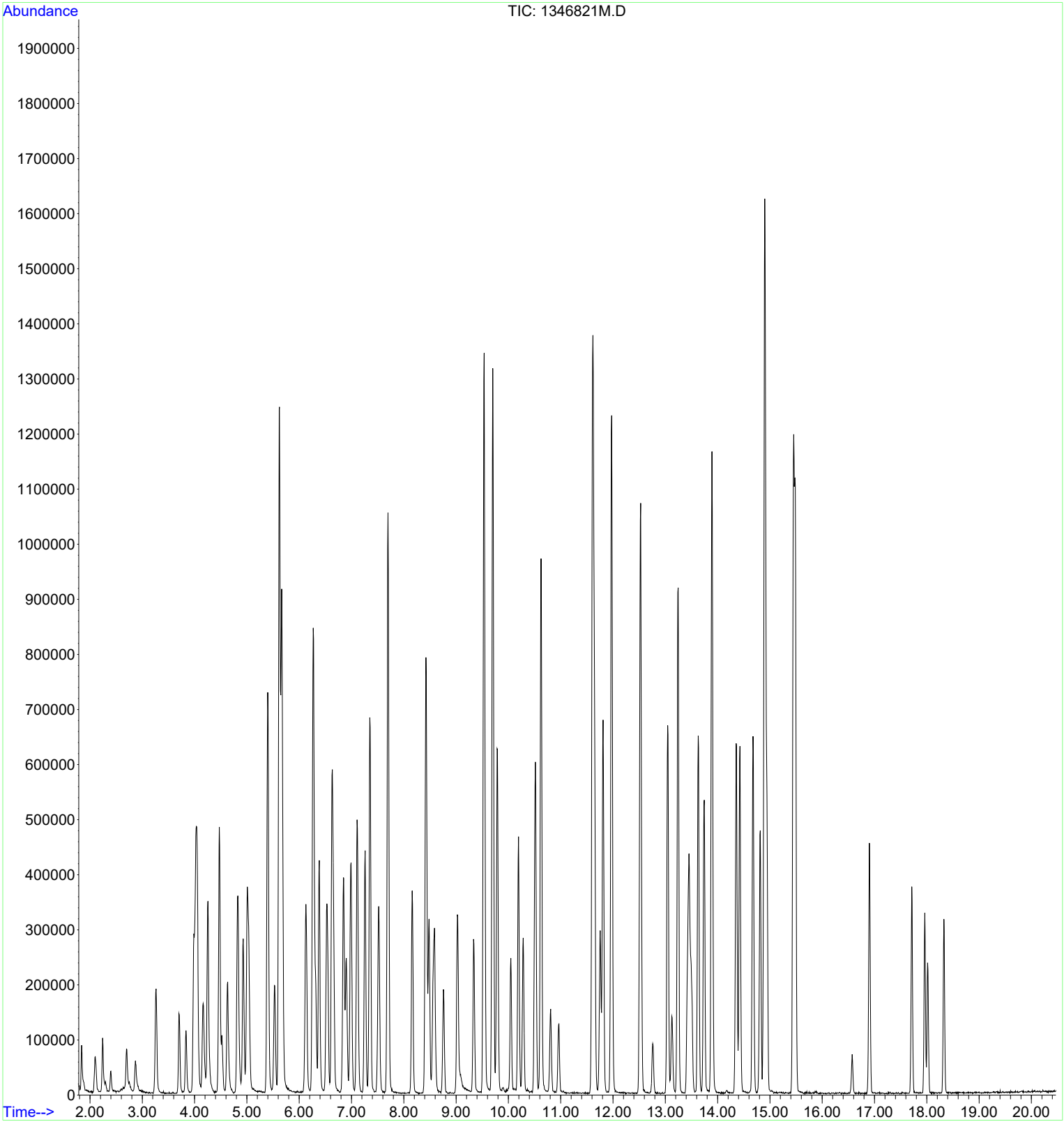
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821M.D Vial: 31
Acq On : 24 Jul 2023 9:12 Operator: DGS-RLD
Sample : 273706,MSW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 09:33:17 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M



Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821S.D Vial: 32
Acq On : 24 Jul 2023 9:40 Operator: DGS-RLD
Sample : 273706,MSDW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:01:04 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1060187	20.00	ug/L	-0.01 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	796611	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	407556	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	271902	20.185	ug/L	-0.01
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.25	102	74281	20.074	ug/L	-0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1044698	20.156	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.24	95	409101	19.650	ug/L	-0.01
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.83	85	97644	12.6998	ug/L	99
3) Chloromethan	2.10	50	106380	10.4086	ug/L	99
4) VinylChlorid	2.24	62	110784	11.4166	ug/L	97
5) Bromomethane	2.69	94	72251	11.6604	ug/L	96
6) Chloroethane	2.86	64	75632	12.0185	ug/L	99
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.26	101	197455	11.9157	ug/L	100
9) Ethylether	3.70	59	97510	9.2564	ug/L	92
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.83	56	108281	42.6540	ug/L	98
13) 11dichlorthe	3.98	96	121860	12.5120	ug/L	96
14) Trichlorotfluoroeth	4.02	101	262675	24.6626	ug/L	98
15) Acetone	4.05	43	356994	63.8530	ug/L	97
16) Iodomethane	4.16	142	296894	23.4046	ug/L	97
17) Carbon Dislf	4.25	76	664267	25.6252	ug/L	99
18) allylchloride	4.47	41	378729	22.7114	ug/L	99
19) methylacetate	4.52	74	32953	9.6614	ug/L	95
20) Methylchlorid	4.62	84	125548	11.1958	ug/L	95
21) tbutylalcohol	4.81	59	515401	430.1019	ug/L	97
22) Acrylonitrile	4.92	53	250225	48.7332	ug/L	98
23) t12dichlorte	5.00	96	130671	11.8391	ug/L	99
24) MtBE	5.03	73	328243	10.3211	ug/L	99
25) Hexane	5.39	57	436107	23.2148	ug/L	99
26) 11dichlorota	5.53	63	231458	11.3422	ug/L	100
27) Vinylacetate	5.62	43	2246509	97.7912	ug/L	99
28) chloroprene	5.65	53	453939	23.9342	ug/L	98
29) Diisopether	5.67	45	405921	11.0091	ug/L	94
30) ETBE	6.12	59	367528	10.7445	ug/L	99
31) 22dichloropr	6.26	77	183148	11.6795	ug/L	99
32) c12dichlorte	6.26	96	142689	11.4560	ug/L	98
33) 2Butanone	6.27	72	154017	83.0137	ug/L	98
34) propionitrile	6.31	54	202572	94.1215	ug/L	98
35) Ethylacetate	6.38	88	25001	44.1421	ug/L #	94
36) methacrylonitrile	6.52	67	101804	19.0292	ug/L	98
37) Bromochlorma	6.54	128	61327	10.9269	ug/L	93
38) Tetrahydofur	6.62	42	384369	91.4500	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821S.D Vial: 32
Acq On : 24 Jul 2023 9:40 Operator: DGS-RLD
Sample : 273706,MSDW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:01:04 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	224116	11.3651	ug/L	99
40)	111trichlota	6.90	97	198493	11.9491	ug/L	97
42)	Cyclohexane	6.99	56	245502	11.9181	ug/L	99
43)	Carbtetraclo	7.11	119	151807	11.7362	ug/L	99
44)	11dicloprope	7.11	110	67591	12.0580	ug/L	94
46)	Benzene	7.35	78	529177	11.6836	ug/L	98
47)	12dichlorota	7.35	62	175057	10.5708	ug/L	99
48)	TAME	7.52	73	316268	10.3722	ug/L	99
49)	trichloroete	8.15	95	149521	12.4690	ug/L	98
50)	methylcyclohexane	8.42	83	274194	11.3571	ug/L	98
51)	12dicloropra	8.42	63	141235	11.1905	ug/L	95
52)	23Dicl1propene	8.48	75	208301	11.3908	ug/L	98
53)	Dibromometha	8.55	93	76659	11.0494	ug/L	97
54)	methylmethacrylate	8.58	69	86544	9.6687	ug/L	97
55)	14dioxane	8.60	88	79900	459.5201	ug/L	97
56)	Bromodiclrma	8.76	83	151631	10.7845	ug/L	98
57)	2Nitropropane	9.02	43	244334	76.7996	ug/L	99
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.33	75	193036	11.0622	ug/L	97
60)	4Meth2Pentan	9.53	43	1047116	92.3046	ug/L	99
62)	Toluene	9.78	92	344060	11.6367	ug/L	98
63)	t13Dicloprop	10.05	75	160399	10.9586	ug/L	99
64)	ethylmethacrylate	10.19	69	294966	19.9942	ug/L	99
65)	112Triclotha	10.28	83	91170	10.3923	ug/L	99
66)	Tetrachlorte	10.52	166	155490	11.9725	ug/L	98
67)	13Diclorpropa	10.50	76	200891	10.6142	ug/L	100
69)	2Hexanone	10.62	43	725690	86.6449	ug/L	98
70)	Clorodibrmta	10.81	129	104803	10.5402	ug/L	96
71)	12Dibrometha	10.96	107	108243	10.0785	ug/L	97
72)	Chlorobenzen	11.65	112	358063	11.3305	ug/L	100
73)	1Clhexane	11.63	91	191486	11.6827	ug/L	97
74)	1112Tetclota	11.76	131	106875	10.8177	ug/L	99
75)	Ethylbenzene	11.81	91	627755	11.8099	ug/L	99
76)	m p-Xylene	11.97	106	480757	23.6599	ug/L	95
77)	o-Xylene	12.52	106	231935	11.6753	ug/L	97
78)	Styrene	12.53	104	370978	11.6306	ug/L	99
79)	Bromoform	12.76	173	61470	9.8729	ug/L	97
80)	Isopropylben	13.05	105	599535	12.2299	ug/L	99
81)	cyclohexanone	13.13	55	79209	43.2339	ug/L	95
84)	Bromobenzene	13.46	156	148077	11.0014	ug/L	97
85)	1122Tetrclta	13.42	83	138060	9.5753	ug/L	100
86)	123Triclproa	13.48	75	167787	9.4552	ug/L	98
87)	14dichloro2butene	13.51	53	36822	9.6523	ug/L	98
88)	n-Propylbenz	13.63	91	681039	11.8156	ug/L	100
89)	2chlorotolue	13.74	91	411973	11.3045	ug/L	100
90)	4chlorotolue	13.90	91	474859	11.5698	ug/L	100
91)	135Trimebenz	13.89	105	488126	11.8640	ug/L	96
92)	tbutylbenzen	14.36	119	418587	11.8336	ug/L	98
93)	124Trimetben	14.42	105	474225	11.7863	ug/L	99
94)	sbutylbenzen	14.68	105	604152	12.5449	ug/L	98
95)	13Diclorbenz	14.82	146	263461	11.0969	ug/L	99
96)	pIsopropylto	14.89	119	521011	12.5813	ug/L	99
97)	14dichlorobe	14.94	146	271304	11.0816	ug/L	99
98)	12dichlorobe	15.48	146	251235	10.8229	ug/L	99
99)	nButylbenzen	15.49	91	456698	12.5991	ug/L	99
100)	12dibromo3cl	16.57	157	22397	8.6077	ug/L	97
101)	135Trichlorobenzene	16.90	180	185245	11.3975	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821S.D Vial: 32
Acq On : 24 Jul 2023 9:40 Operator: DGS-RLD
Sample : 273706,MSDW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:01:04 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	141563	10.9776	ug/L	100
103) Hexachlorobu	17.97	225	77369	13.6619	ug/L	96
104) Naphthalene	18.02	128	228521	8.1017	ug/L	99
105) 123Trichlben	18.33	180	116981	10.3422	ug/L	100

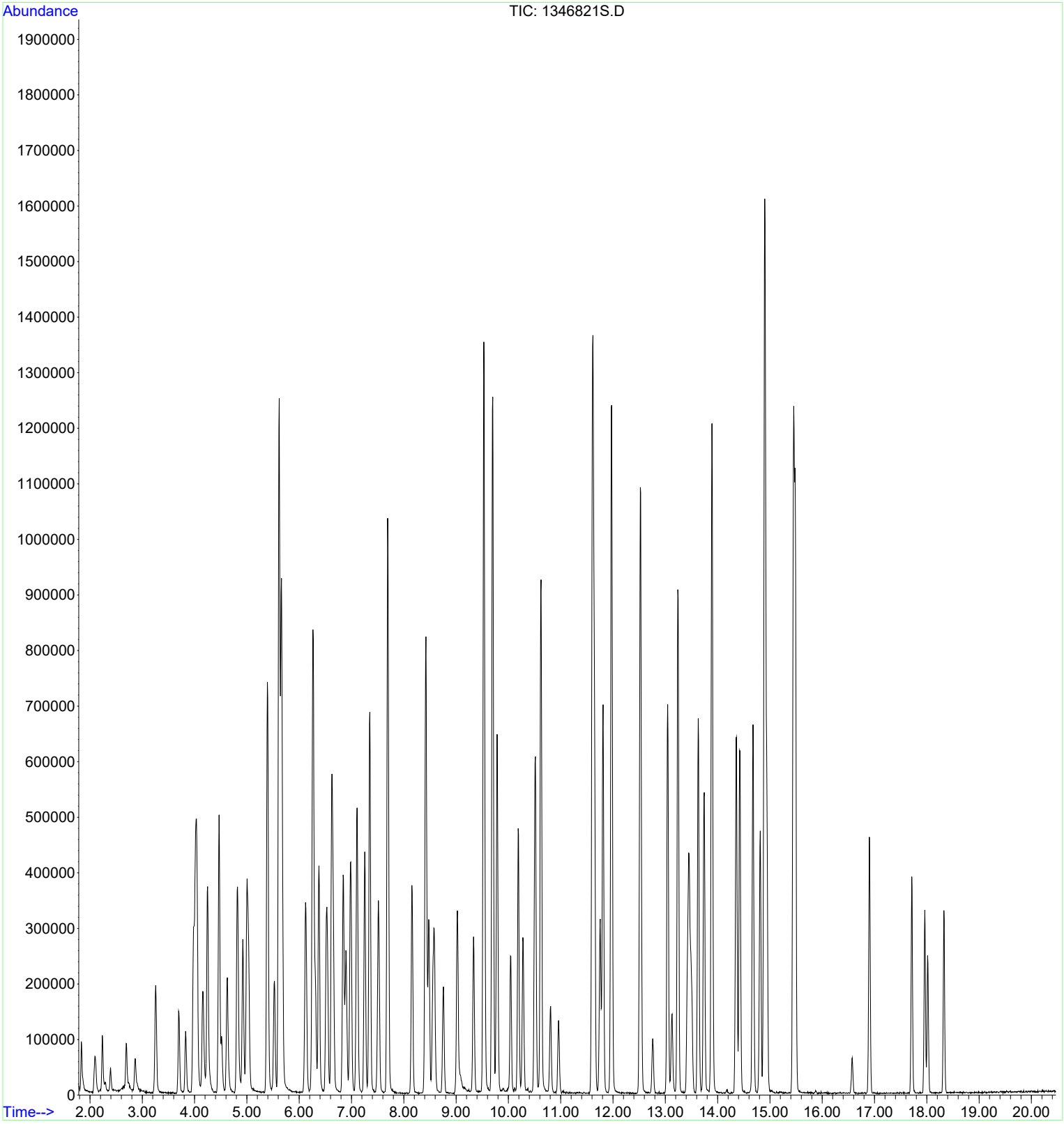
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\JUL2123\1346821S.D Vial: 32
Acq On : 24 Jul 2023 9:40 Operator: DGS-RLD
Sample : 273706,MSDW1346821, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Jul 24 10:01:04 2023 Results File: W071823.RES

Quant Method : C:\INSTARCH\METHODS\W071823.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Jul 19 07:17:02 2023
Response via : Initial Calibration
DataAcq Meth : W071823.M

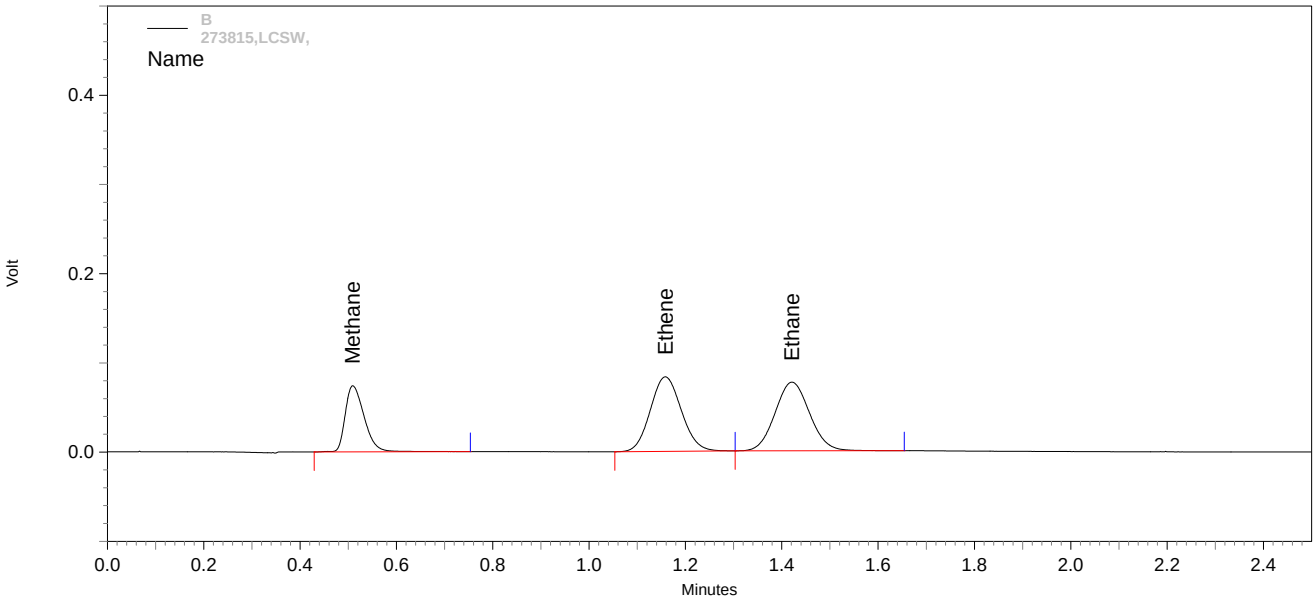


Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,LCSW,
Acquired: Jul 20, 2023 09:38:17
File Desc. Laboratory Control Sample - 25 ppmV -

500 uL of the 200 ppmV MEE Std. into 4 mL of headspace. 1.0 mL injection (Methane, Ethene, Ethane,)



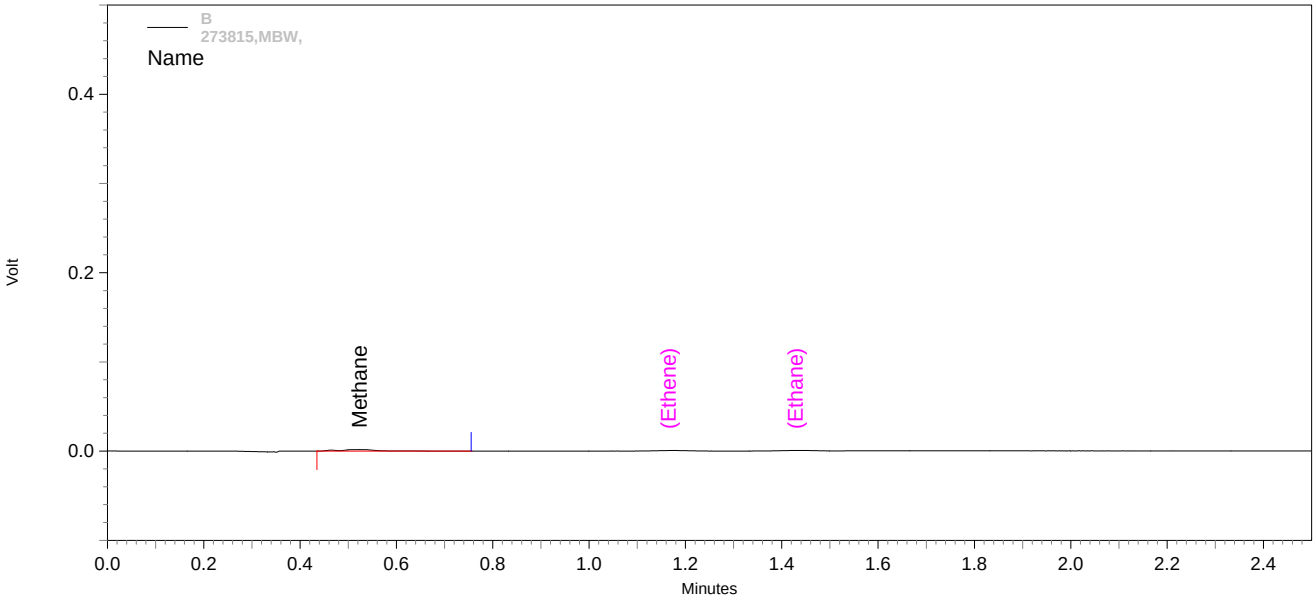
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.509**	**0.515**	**203050**	**24.488**	**ppmV**
2	**Ethene**	**1.158**	**1.165**	**373896**	**24.646**	**ppmV**
3	**Ethane**	**1.421**	**1.428**	**383566**	**25.121**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,MBW,
Acquired: Jul 20, 2023 09:45:56
File Desc. Method Blank
1.0 mL injection (Methane, Ethene, Ethane)



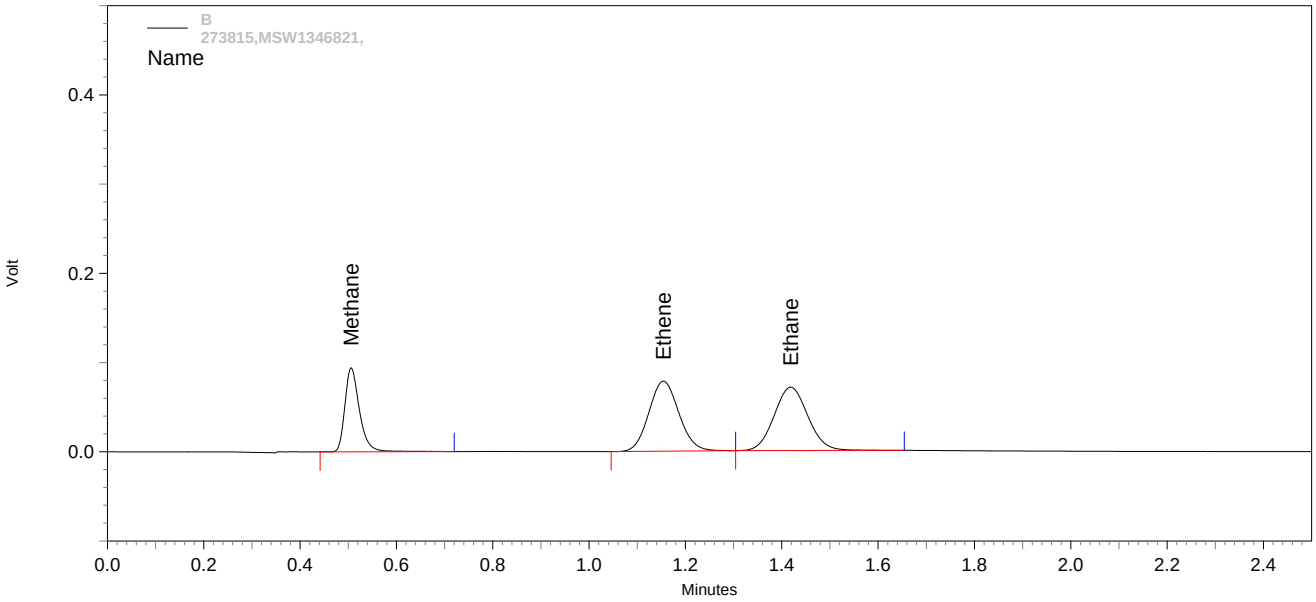
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.523**	**0.515**	**8886**	**0.176**	**ppmV**
	Ethene		**1.165**		**0.000 BDL**	**ppmV**
	Ethane		**1.428**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,MSW1346821,
Acquired: Jul 20, 2023 09:56:58
File Desc. MATRIX SPIKE 1mL injection (Methane, Ethene, Ethane)



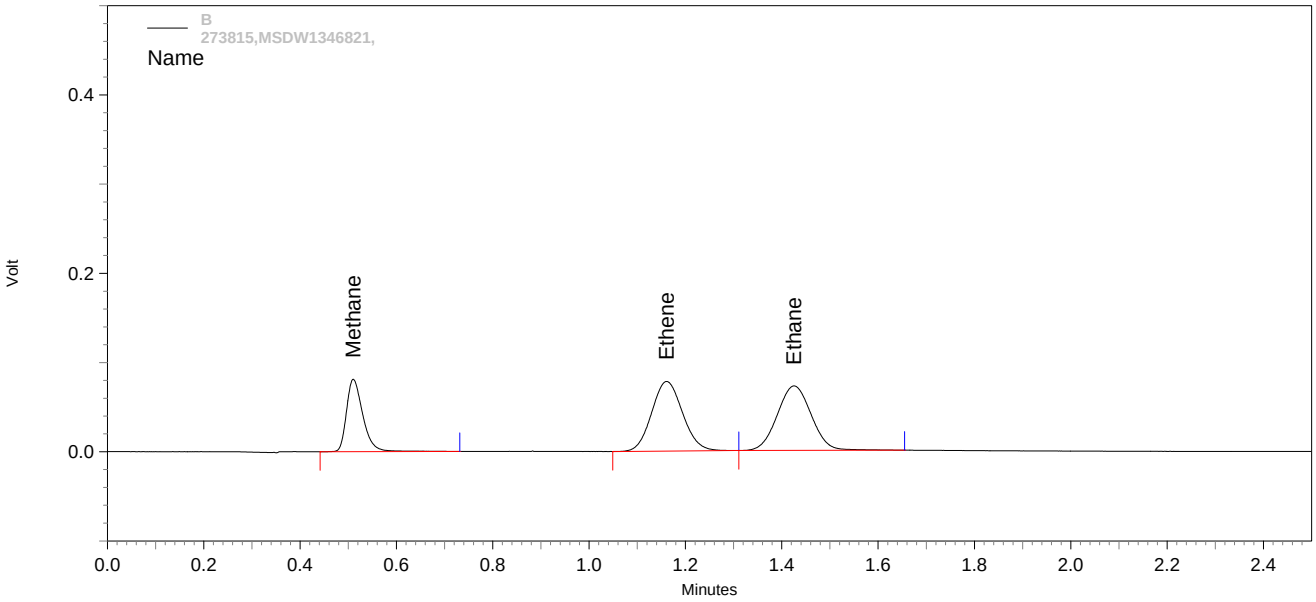
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.506**	**0.515**	**198925**	**23.972**	**ppmV**
2	**Ethene**	**1.154**	**1.165**	**339964**	**22.334**	**ppmV**
3	**Ethane**	**1.418**	**1.428**	**346606**	**22.624**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\072023 -\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG071323.met
Sample ID: 273815,MSDW1346821,
Acquired: Jul 20, 2023 10:02:04
File Desc. MATRIX SPIKE DUP 1mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.510**	**0.515**	**191739**	**23.072**	**ppmV**
2	**Ethene**	**1.161**	**1.165**	**347617**	**22.855**	**ppmV**
3	**Ethane**	**1.425**	**1.428**	**354213**	**23.138**	**ppmV**

VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS

VOC 8260 QSM WATER 5.0 Analytical Run
273706 on 7/25/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1351989						VOC 8260 QSM WATER 5.0				
				BFB				0			
	1351391						VOC 8260 QSM WATER 5.0				
				LCSW				0			
	1351393						VOC 8260 QSM WATER 5.0				
				CCV				0			
	1351392						VOC 8260 QSM WATER 5.0				
				MBW				0			
178914	1346820		7/11/2023 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		49TB-1									
178962	1347301		7/12/2023 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		49TB-2									
178962	1347305		7/12/2023 14:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW01-EQB									
179025	1347757		7/13/2023 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		49TB-3									
179047	1348130		7/14/2023 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		49TB-4									
178914	1346821		7/11/2023 09:05		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13MW4		Designated MS/MSD							
178914	1346822		7/11/2023 10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13MW3									
178914	1346823		7/11/2023 11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW04									
178914	1346824		7/11/2023 11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49TW04									
178914	1346825		7/11/2023 12:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13MW2									
178962	1347302		7/12/2023 10:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW6									
178962	1347303		7/12/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW01									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Volatiles C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp8F62.tmp Page 1 of 1

VOC 8260 QSM WATER 5.0 Analytical Run
273706 on 7/25/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
178962	1347304		7/12/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49TW01											
179025	1347758		7/13/2023	11:15			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW1											
179025	1347759		7/13/2023	15:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		50MW2											
179047	1348146		7/14/2023	08:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW2											
179047	1348147		7/14/2023	10:25			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW3											
179047	1348148		7/14/2023	11:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW02											
	1351394								VOC 8260 QSM WATER 5.0				
					CCVF					0			
	1351990								VOC 8260 QSM WATER 5.0				
					BFB					0			
	1351419								VOC 8260 QSM WATER 5.0				
					CCV					0			
	1351484								VOC 8260 QSM WATER 5.0				
					CCB					0			
	1351483		7/11/2023	09:05					VOC 8260 QSM 5.0				
		13MW4			MSW	1346821				0			
	1351487		7/11/2023	09:05					VOC 8260 QSM 5.0				
		13MW4			MSDW	1351483				0			
	1351593								VOC 8260 QSM WATER 5.0				
					CCVF					0			

29 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\JUL2123\BFB1.D
Injection Date : 21 Jul 2023 Log Time Period (hrs) : ALL
Injection Time : 13:36 Total files within period : 32
Sample Directory : C:\INSTARCH\DATA\JUL2123\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
IB1	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	21 Jul 2023	13:48
CCV-LCS1	1.00	1.00	1.00	273706,LCSW, 10.0/100 ug/L, 5.0 m	21 Jul 2023	14:17
IB2	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	21 Jul 2023	14:44
IB3	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	21 Jul 2023	15:12
MB1	1.00	1.00	1.00	273706,MBW, pH<2, 5.0 mL Purged	21 Jul 2023	15:40
1346820	1.00	1.00	1.00	273706,1346820, pH<2,5.0 mL Purged +	21 Jul 2023	16:08
1347301	1.00	1.00	1.00	273706,1347301, pH<2,5.0 mL Purged +	21 Jul 2023	16:36
1347305	1.00	1.00	1.00	273706,1347305, pH<2,5.0 mL Purged +	21 Jul 2023	17:03
1347757	1.00	1.00	1.00	273706,1347757, pH<2,5.0 mL Purged +	21 Jul 2023	17:31
1348130	1.00	1.00	1.00	273706,1348130, pH<2,5.0 mL Purged +	21 Jul 2023	18:00
1346821	1.00	1.00	1.00	273706,1346821, pH<2,5.0 mL Purged +	21 Jul 2023	18:27
1346822	1.00	1.00	1.00	273706,1346822, pH<2,5.0 mL Purged +	21 Jul 2023	18:54
1346823	1.00	1.00	1.00	273706,1346823, pH<2,5.0 mL Purged +	21 Jul 2023	19:21
1346824	1.00	1.00	1.00	273706,1346824, pH<2,5.0 mL Purged +	21 Jul 2023	19:50
1346825	1.00	1.00	1.00	273706,1346825, pH<2,5.0 mL Purged +	21 Jul 2023	20:18
1347302	1.00	1.00	1.00	273706,1347302, pH<2,5.0 mL Purged +	21 Jul 2023	20:45
1347303	1.00	1.00	1.00	273706,1347303, pH 6,5.0 mL Purged +	21 Jul 2023	21:12
1347304	1.00	1.00	1.00	273706,1347304, pH 6,5.0 mL Purged +	21 Jul 2023	21:40
1347758	1.00	1.00	1.00	273706,1347758,	21 Jul 2023	22:08

				pH<2,5.0 mL Purged +	
1347759	1.00	1.00	1.00	273706,1347759,	21 Jul 2023 22:36
				pH<2,5.0 mL Purged +	
1348146	1.00	1.00	1.00	273706,1348146,	21 Jul 2023 23:04
				pH<2,5.0 mL Purged +	
1348147	1.00	1.00	1.00	273706,1348147,	21 Jul 2023 23:31
				pH<2,5.0 mL Purged +	
1348148	1.00	1.00	1.00	273706,1348148,	21 Jul 2023 23:59
				pH<2,5.0 mL Purged +	
CCVF1	1.00	1.00	1.00	273706,CCVF,	22 Jul 2023 00:28
				10.0/100 ug/L, 5.0 m	
BFB2	1.00	1.00	1.00	BFB DIRECT INJ.	24 Jul 2023 07:09
				50 ng Inj.	
IB4	1.00	1.00	1.00	INSTRUMENT BLANK	24 Jul 2023 07:21
				5.0 mL DI H20 Purged	
CCV2	1.00	1.00	1.00	273706,CCV,	24 Jul 2023 07:49
				10.0/100 ug/L, 5.0 m	
IB5	1.00	1.00	1.00	INSTRUMENT BLANK	24 Jul 2023 08:16
				5.0 mL DI H20 Purged	
CCB1	1.00	1.00	1.00	273706,MBW,	24 Jul 2023 08:44
				pH<2, 5.0 mL Purged	
1346821M	1.00	1.00	1.00	273706,MSW1346821,	24 Jul 2023 09:12
				pH<2,5.0 mL Purged +	
1346821S	1.00	1.00	1.00	273706,MSDW1346821,	24 Jul 2023 09:40
				pH<2,5.0 mL Purged +	
CCVF2	1.00	1.00	1.00	273706,CCVF,	24 Jul 2023 10:07
				10.0/100 ug/L, 5.0 m	

8260 ISTD/SSTD 20ug/ml VOC1104
8260 BFB STD. 50ug/ml VOC1103
8260 ICV STD. 100ug/ml VOC1105
8260 CCV/CALIB. 100ug/ml VOC1106

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W071823.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\JUL1823\BFB1.D
Injection Date : 18 Jul 2023 Log Time Period (hrs) : ALL
Injection Time : 09:47 Total files within period : 24
Sample Directory : C:\INSTARCH\DATA\JUL1823\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	18 Jul 2023	11:00
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	18 Jul 2023	11:30
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	18 Jul 2023	11:59
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	18 Jul 2023	12:28
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	18 Jul 2023	12:58
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	18 Jul 2023	13:26
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	18 Jul 2023	13:56
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	18 Jul 2023	14:24
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	18 Jul 2023	14:54
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	18 Jul 2023	15:51
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	18 Jul 2023	16:20
MB-ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2, 5.0 mL Purged	18 Jul 2023	17:47

8260 ISTD/SSTD 20ug/ml VOC1104
8260 BFB STD. 50ug/ml VOC1103
8260 ICV STD. 100ug/ml VOC1105
8260 CCV/CALIB. 100ug/ml VOC1106

FVO4-01 Data Review Checklist

FORM #: FVO4-01
Rev. #: 2.2
Effective Date: 08/05/19

INDEPENDENT DATA REVIEW CHECKLIST			Method: GCMS (EPA SW-846 8260C)					
Analysis Date	**LIMS Run #(s):**	**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved?**			**Instrument**
					Yes	No		
07/21/2023	273706	DGS	RLD	07/25/2023	Yes			VMS3

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	
I. BFB Tune Check						
Was a BFB tune check analyzed with acceptable results?	Relative abundance criteria met?	Yes		Yes		
II. Initial Calibration Verification (ICV)						
Was initial calibration performed using a minimum of five standard concentration levels (minimum of 6 levels for quadratic curves)?	Lowest standard at or below RL?	Yes		Yes		
Were the Average Relative Response Factors (ARRF) acceptable?	ARRF<or= specified limits (<15%D.)see SOP)	Yes		Yes		
Was a second-source ICV(s) analyzed (for Quadratic Curve)?	Required before sample analyses.	Yes		Yes		
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
Was Initial Calibration Blank (ICB) analyzed?	Required before sample analyses.	Yes		Yes		
Were the ICB results for all target analytes less than the limit of detection (LOD).	<LOD or < project/program specific limits	Yes		Yes		
III. Continuing Calibration Verification (CCV)						
Was an acceptable BFB tune check run at the beginning of every twelve hour shift?	Relative abundance criteria met?	Yes		Yes		
Was a CCV analyzed after every 12 hour tune check?	Required before sample analyses.	Yes		Yes		
Was a second CCV (CCV2) for compounds calibrated using quadratic curves analyzed after every 12 hour tune check?	Required before analyses of WI samples (above the inflection point of the curve).					
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific		No		No	Affected compound was Z flagged
If necessary, were the results for outlying compounds qualified?		Yes		Yes		

IV. Blanks						
Was a Method Blank (MB) analyzed prior to analysis of samples?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MB results for all target analytes less than the limit of detection (LOD)?	*All target analytes <LOD or < project/program specific limits (<1/2 RL for DoD-QSM)	Yes		Yes		
If analytes were detected in the MB with no associated positives in the samples, no further action is needed. If the analyte detects in the MB were greater than the acceptance criteria and there were detects in the samples, was the data qualified.?						
V. Laboratory Control Spike (LCS)						
Was a LCS (and LCSD if needed) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the LCS (LCSD) recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
If applicable, were associated sample detects (and non-detects for low recoveries) qualified?						
Is the relative percent difference (RPD) for each analyte between the LCS and LSCD (if applicable) acceptable?	Default 20%, or see internally generated limits, or client specific limits.					
VI. Matrix Spike/Matrix Spike Duplicate (MS/MSD)						
Was a Martrix Spike (MS) and a Matrix Spike Duplicate (MSD) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MS/MSD recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
Is the relative percent difference (RPD) for each analyte between the MS and MSD acceptable?	Default 20%, or see internally generated limits, or client specific limits.	Yes		Yes		
VII. Sample Analyses						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
Were surrogate recoveries for all samples and QC within acceptance criteria?	Default 70-130%, or see internally generated program limits, or client specified limits.	Yes		Yes		
If possible, were the affected samples reanalyzed?						
**Were reported sample results with failing surrogate recoveries qualified?						
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed? If not qualify (X).	Target upper middle range of calibration curve.					
Did all samples meet hold time and preservation criteria as defined by method/program?	H2O sample: pH < 2 = 14 days, pH >2 = 7 days. Soil samples: 14 days (other criteria may apply)		No		No	Improperly preserved samples were T flagged
Were all samples and QC injected within 12 hours of BFB tune check?		Yes		Yes		
Were internal standard recoveries acceptable relevant to associated ICAL?	Response = -50 to +200%; Ret. time = +/- 30 sec.	Yes		Yes		

VIII. Records and Reporting						
Is sequence file / injection log present in the data package?		Yes		Yes		
Were all data, calculations, and values verified in LIMS (including removal of non-detections) upon completion of data capture?		Yes		Yes		
Were manual integrations performed correctly?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms.	Yes		Yes		
Was the rational for the manual integration verified?		Yes		Yes		
Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

ᵏNon-Applicable Yes/No Cells Are Left Blank*

Comments:

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1103	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1095 into 2925uL of MeOH.	MeOH / B&J / EB199-U	50 ug/mL	07/16/2023	08/16/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1104	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / B&J / EB199-U	20 ug/mL	07/16/2023	08/16/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1105 RC *	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1040, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1042, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	07/16/2023	07/23/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1106 RC **	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1043, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1045 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	07/16/2023	07/23/2023	RLD

* Recertification for V1042 (VMS4 seq. date 07/16/2023)
**Recerfification for V1043 (VMS4 seq. date 07/16/2023)

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1101	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1040, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1042, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	06/28/2023	07/05/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1102	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1043, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	06/28/2023	07/05/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1099	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1040, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1042, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	06/19/2023	06/26/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1100	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1043, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1045 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	06/19/2023	06/26/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1095	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1022 into 2925uL of MeOH.	MeOH / B&J / EB199-US	50 ug/mL	06/07/2023	07/07/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1096	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / B&J / EB199-US	20 ug/mL	06/07/2023	07/07/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1097	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1040, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1042, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	06/07/2023	06/14/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1098	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1043, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1045 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	06/07/2023	06/14/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1093	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1040, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1042, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	05/23/2023	05/30/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1094	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1043, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1045 into 2250uL of MeOH.	MeOH / B&J / EB199-U	100 ug/mL	05/23/2023	05/30/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1089	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1022 into 2925uL of MeOH.	MeOH / B&J / EB199-US	50 ug/mL	05/09/2023	06/09/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1090	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / B&J / EB199-US	20 ug/mL	05/09/2023	06/09/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1091	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1040, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1042, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1044 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	05/10/2023	05/17/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1092	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1043, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1045 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	05/10/2023	05/17/2023	RLD

Standard Log #:	VOC1087	Standard/Reagent:	ICV Recertification
Analyst:	RLD	Final Concentration:	100 ug/mL
Prep Date:	05/02/2023	Expiration Date:	05/09/2023
Prep:	Recertified 8260 std VOC1082. Lot #'s affected VOC mix (V1024) VOC additions (V1035), and VOC special additions (V1037).		

Standard Log #:	VOC1088	Standard/Reagent:	CCV Recertification
Analyst:	RLD	Final Concentration:	100 ug/mL
Prep Date:	05/02/2023	Expiration Date:	05/09/2023
Prep:	Recertified 8260 std VOC1081. Lot #'s affected VOC mix (V1030) VOC additions (V1036), and VOC special additions (V1038).		

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1083	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1035, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1037 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	04/13/2023	04/20/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1084	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1036, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1038 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	04/13/2023	04/20/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1079	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V1022 into 2925uL of MeOH.	MeOH / B&J / EB199-US	50 ug/mL	04/04/2023	05/04/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1080	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V1025 into 25mL of MeOH.	MeOH / B&J / EB199-US	20 ug/mL	04/04/2023	05/04/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1081	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1024, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1035, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1037 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	04/04/2023	04/11/2023	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC1082	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1030, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1036, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1038 into 2250uL of MeOH.	MeOH / B&J / EB199-US	100 ug/mL	04/04/2023	04/11/2023	RLD

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1044	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	NSI230505201
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	05/31/2025	05/10/2023	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1045	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	NSI230505202
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	05/31/2025	05/10/2023	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

1

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1042	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	NA230331003
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/29/2023	05/02/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1043	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	NA230329004
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/27/2023	05/02/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1040	8260 VOC Mix	AccuStandard	M-502-10X-PAK	223021396
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	02/23/2026	03/16/2023	RLD
# of Ampules/Units:	5	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1035	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	NA230125010
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	07/24/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1036	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	ND230125013
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	07/24/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1037	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	ND230125009
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	04/25/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1038	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	NA230127011
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	04/27/2023	02/06/2023	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1030	8260 VOC Mix	Agilent	DWM-588-1	0006657212
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	01/31/2025	09/29/2022	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1025	1,2-Dichlorobenzene-$_{d4}$	Agilent	STS-210-1	0006625676
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	08/31/2025	07/27/2022	RLD
# of Ampules/Units:	4	Comments:	Used for surrogate standard preparation for PVOC/GRO and 524.2 SDWA.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1002	4-Bromofluorobenzene	Agilent	STS-110N	0006629793
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	09/30/2028	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 BFB Std. and PVOC/GRO SSTD. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0991	8260 ISTD/SSTD Mix	Agilent	STM-540	0006595713
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,500 ug/mL	MeOH	04/30/2024	05/24/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 IS/SS standard mix preparation.	

V METH, ETH, ETHENE QSM 5.0 Analytical Run
273815 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1350563							V METH, ETH, ETHENE QSM 5.0				
					CCV				0			
	1350345							METH,ETH,ETHE QSM 5.0				
					LCSW				130621			
	1350344							METH,ETH,ETHE QSM 5.0				
					MBW				130621			
178914	1346821		7/11/2023	09:05		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW4			Designated MS/MSD				130621			
	1350342		7/11/2023	09:05				METH,ETH,ETHE QSM 5.0				
		13MW4			MSW 1346821				130621			
	1350343		7/11/2023	09:05				METH,ETH,ETHE QSM 5.0				
		13MW4			MSDW 1350342				130621			
178914	1346822		7/11/2023	10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW3							130621			
178914	1346823		7/11/2023	11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW04							130621			
178914	1346824		7/11/2023	11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49TW04							130621			
178914	1346825		7/11/2023	12:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW2							130621			
178962	1347302		7/12/2023	10:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW6							130621			
178962	1347303		7/12/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW01							130621			
178962	1347304		7/12/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49TW01							130621			
178962	1347305		7/12/2023	14:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW01-EQB							130621			
179025	1347758		7/13/2023	11:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW1							130621			
	1350564							V METH, ETH, ETHENE QSM 5.0				
					CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp7F50.tmp Page 1 of 1

V METH, ETH, ETHENE QSM 5.0 Analytical Run
273815 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
179025	1347759		7/13/2023 15:45		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	**4**	
		50MW2						130621			
179047	1348146		7/14/2023 08:45		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	**4**	
		48MW2						130621			
179047	1348147		7/14/2023 10:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	**4**	
		48MW3						130621			
179047	1348148		7/14/2023 11:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	**4**	
		49MW02						130621			
	1350565						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			

21 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PrepWrkSht
on 7/21/2023

Prep Batch **130,621** Date Prepped: 7/20/2023 Prepped By:: SRW

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	1350344	MBW		METH,ETH,ETHE QSM 5.0	LIQUID	22.5				
	1350345	LCSW		METH,ETH,ETHE QSM 5.0	LIQUID	22.5				
178914	1346821	sample designated for QC		METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1346822			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1346823			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1346824			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1346825			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
178962	1347302			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1347303			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1347304			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1347305			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
179025	1347758			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1347759			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
179047	1348146			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1348147			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1348148			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1350342	MSW	1346821	METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5				
	1350343	MSDW	1350342	METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5				

Notes:_____

VOT25

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 7/20/2023 **Instrument:** PVOC4

Calibration Date: 7/13/2023 **Analyst:** SRW

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	Ps	0.25	43	22.5	
2	CCV	0.25	43	22.5	
3	LCSW	1.00	43	22.5	
4	MBW	1.00	43	22.5	
5	1346821	1.00	43	22.5	<2
6	1346821 MSW	1.00	43	22.5	<2
7	1346821 MSDW	1.00	43	22.5	<2
8	1346822	1.00	43	22.5	<2
9	1346823	1.00	43	22.5	<2
10	1346824	1.00	43	22.5	<2
11	1346825	1.00	43	22.5	<2
12	1347302	1.00	43	22.5	<2
13	1347303	1.00	43	22.5	5
14	1347304	1.00	43	22.5	4
15	1347305	1.00	43	22.5	<2
16	1347758	1.00	43	22.5	<2
17	CCV	0.25	43	22.5	
18	1347759	1.00	43	22.5	<2
19	1348146	1.00	43	22.5	<2
20	1348147	1.00	43	22.5	<2
21	1348148	1.00	43	22.5	<2
22	CCV	0.25	43	22.5	
23			43		
24			43		
25			43		

Calibration Standard Ref. #: V1048

Second Source Ref. #: V0845

Page 1

Page 1 of 1

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\072023 - 273815.seq
Instrument: PVOC4
Processing Date: Jul 20, 2023 11:19:04

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
2	273815,CCV,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 09:33:06
3	273815,LCSW,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 09:38:17
4	273815,MBW,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 09:45:56
5	273815,1346821,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 09:50:50
6	273815,MSW1346821,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 09:56:58
7	273815,MSDW1346821,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:02:04
8	273815,1346822,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:05:55
9	273815,1346823,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:09:54
10	273815,1346824,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:14:09
11	273815,1346825,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:17:56
12	273815,1347302,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:21:50
13	273815,1347303,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:25:47
14	273815,1347304,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:32:39
15	273815,1347305,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:36:40
16	273815,1347758,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:41:24
17	273815,CCV,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:45:39
18	273815,1347759,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:54:30
19	273815,1348146,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 10:58:06
20	273815,1348147,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 11:02:30
21	273815,1348148,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 11:07:09
22	273815,CCV,	C:\InStarch\PVOC4\Data\072023 ...	C:\Instarch\PVOC4\Methods\P4...	Jul 20, 2023 11:19:04

FVO1-01 Data Review Checklist

	FVO1-01 Method: Dissolved Gases (EPA SW-846 8015 / RSK 175 Modified)					
LIMS Run #(s)	**Analysis Date (s)**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**	**Instrument**
273815	07/20/2023	SRW	DGS	07/24/2023	Yes	PVOC4

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
1. INITIAL CALIBRATION (ICAL)		**Yes**	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
a. Was the initial calibration performed using a minimum of five concentration levels?	Lowest standard at or below RL	Yes		Yes		
b. For each analyte/component is the variation between calibration response factors for all concentration levels <20% RSD or is $r^2 \geq .99$ or $r \geq .995$ for the regression line?	RSD <20% or $r^2 \geq .99$ or $r \geq .995$ or program/project specific	Yes		Yes		
c. Are the identification and date of the ICAL listed on the printout (or PDF) of the analytical run and in the method file?	ID# and date of ICAL listed	Yes		Yes		
d. Was an Initial Calibration Verification (ICV) analyzed after the ICAL?	Analyzed prior to sample analyses	Yes		Yes		
e. Were the recoveries for each analyte in the ICV within required limits?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
f. Was an Initial Calibration Blank (ICB) analyzed?		Yes		Yes		
g. Were the ICB results for all target analytes/components less than the reporting limit (RL)?	<RL or < program/project specific	Yes		Yes		
2. CONTINUING CALIBRATION VERIFICATION (CCV)						
a . Was a CCV analyzed at the beginning and end of a sequential analysis run, as well as after ever 10 samples?		Yes		Yes		
b. Were the recoveries for each analyte/component in the CCV within acceptance criteria?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
3. METHOD BLANKS (MB)						
a. Was a method blank (MB) analyzed?	1 / 20 or program/project specific	Yes		Yes		
b. Were the MB results for all analytes/components less than reporting limit?	All target analytes/components <RL or within program/project specific limits (DoD-QSM: <1/2 the RL)	Yes		Yes		
4. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at the required frequency?	1 / 20 or program/project specific	Yes		Yes		
b. Were LCS recoveries for all analytes within the acceptance criteria?	Default = 70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
c. If LCS recoveries exceed acceptance criteria, was the LCS reanalyzed in an effort to eliminate the possibility of a preparation error?		Yes		Yes		

5. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATES (MSD) and DUPLICATE						
a. Was a MS, MSD, and/or Duplicate (if valid) Vial analyzed with each batch of 20 samples (or program-specified frequency)?	1 / 20 or program/project specific frequency (QSM samples, duplicate only valid if sample result ≥ 5x the LOQ)	Yes		Yes		
b. Were MS/MSD recoveries for all analytes within acceptance criteria?	Default =70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
6. PRECISION						
a. Is the relative percent difference (RPD) for each analyte between duplicate QC samples (i.e. parent sample / Duplicate vial), or for each MS/MSD within the acceptance criteria?	Default = 20 % RPD, or within In-house generated or program/project specific limits	Yes		Yes		
7. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed or reanalyzed using a smaller sample aliquot? Affected analyte detects should remain above the limit of quantitation (LOQ) after reanalysis.		Yes		Yes		
c. Was the correct ambient temperature recorded on sample spreadsheets?		Yes		Yes		
d. Were all samples adequately preserved and analyzed within holding time?	CO_2 samples received unpreserved (analyze within 7 days or program/project specific) Methane, Ethene, Ethane samples received preserved to <2 (analyze within 14 days or program/project specific)	Yes		Yes		
8. RECORDS AND REPORTING						
a. Is a sequence run file present in the raw data file?		Yes		Yes		
b. Is the data initialed and dated by analyst?	Analysis Run sheet is initialed & dated by the analyst processing the raw data.	Yes		Yes		
c. Do all values, units, etc. listed match the raw data and associated calculations and records?		Yes		Yes		
e. Has the data been electronically transferred to the LIMS and were the applicable qualifiers assigned?		Yes		Yes		
f. Were manual integrations addressed properly and were the audit trails turned on (where applicable)?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms. Audit trail must be on (if available).	Yes		Yes		
g. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

* Non-Applicable Yes/No Cells Are Left Blank*

Comments:

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\071323 - ICAL.seq
Instrument: PVOC4
Processing Date: Jul 13, 2023 11:00:54

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
2	MEE PT1 - 2 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 09:25:50
3	MEE PT2 - 5 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 09:31:08
4	MEE PT3 - 10 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 09:47:55
5	MEE PT4 - 20 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 09:52:25
6	MEE PT5 - 50 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 09:59:02
7	MEE PT6 - 100 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 10:11:00
8	MEE PT7 - 150 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 10:33:36
9	MEE PT8 - 200 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 10:38:10
10	ICV - 50 ppmV	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 10:50:52
11	ICB	C:\Instarch\PVOC4\Data\071323\...	C:\Instarch\PVOC4\Methods\P4...	Jul 13, 2023 11:00:54

Dissolved Gases (Injection)

(Sequence Log)

VOT25

Sequence Date: 7/13/2023 **Instrument:** PVOC4

Calibration Date: 7/13/2023 **Analyst:** SRW/DGS

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	0.01	43	22.6	
2	2 ppm V - Pt1	0.01	43	22.6	
3	5 ppm V - Pt2	0.025	43	22.6	
4	10 ppm V - Pt3	0.05	43	22.6	
5	20 ppm V - Pt4	0.1	43	22.6	
6	50 ppm V - Pt5	0.25	43	22.6	
7	100 ppm V - Pt6	0.5	43	22.6	
8	150 ppm V - Pt7	0.75	43	22.6	
9	200 ppm V - Pt8	1.0	43	22.6	
10	ICV	0.25	43	22.6	
11	ICB	1.00	43	22.6	
12			43		
13			43		
14			43		
15			43		
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

Calibration Standard Ref. #: V1048

Second Source Ref. #: VOC084

Page 1

LSVO1_02_VOC
VOLATILES STANDARDS LOGBOOK
LOGBOOK CREATED 06/10/2020

NOTEBOOK VIEW: LTN_LSVO1_02_VOC_Default, NOTEBOOK: LSVO1_02_VOC, PAGE: 50
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 07/13/23

Standard Log #:	V1048	Standard/Reagent:	MEE GAS STANDARD
Analyst:	SRW	Final Concentration:	200 ppmV
Prep Date:	07/13/2023	Expiration Date:	05/02/2026
Prep:	AIRGAS PART: X04HE99C353Q80 LOT: 54-402729467-1		

1

CT LABORATORIES, LLC

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 64
Page is Locked
Author: rdigmann on: 5/25/2018 7:47:52 AM
Witness: akurth on: 7/31/2018 9:54:19 AM
Project: Unassigned
Page Title: 05/24/18

Standard Log #:	VO886	Standard/Reagent:	Methane Ethene Ethane STI
Analyst:	AGK	Final Concentration:	200.0 PPM
Prep Date:	05/24/18	Expiration Date:	05/17/21
Prep:	Airgas Methane, Ethene, Ethane Standard Received 05/24/18 LOT# 54-401204472-1 REF# 54-401204472-1 Cylinder # P180959		

Standard Log #:	VOC0845	Standard/Reagent:	MEE GAS STANDARD
Analyst:	KMT	Final Concentration:	200 ppmV
Prep Date:	05/19/2021	Expiration Date:	04/14/2024
Prep:	AIRGAS PART: X04HE99C353Q80 LOT: 54-402075924-1		

Standard Log #:	VOC0846	Standard/Reagent:	MEE RECERTIFICATION O
Analyst:	KMT	Final Concentration:	N/A
Prep Date:	05/19/2021	Expiration Date:	05/19/2022
Prep:	Recertification of methane, ethane, ethane tank (V0886). Ran 4 consecutive CCV's with acceptable recoveries.		

LVPO1_05_VOC
Volatiles Standard Prep Logbook
Logbook Created 04/05/2022
NOTEBOOK VIEW: LTN_LPVO1_05_VOC_Default, NOTEBOOK: LPVO1_05_VOC, PAGE: 2
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 062422

Standard Log #:	VOC0992	Standard/Reagent:	MEE RECERTIFICATION O
Analyst:	DGS	Final Concentration:	N/A
Prep Date:	06/24/2022	Expiration Date:	06/24/2023
Prep:	Recertification of methane, ethane, ethane tank (V0886). Ran 5 consecutive CCV's with acceptable recoveries and deviation.		

1

CT Laboratories, LLC

Airgas
an Air Liquide company

Re Cert VOC0992 5/19/2022 Exp: 5/19/2022 kmT Expires 5/17/21 V0886 HGK 5/24/18

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

Re Cert VOC0992 exp 6/24/20

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-401204472-1
Cylinder Number:	P180959	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	May 17, 2018	Valve Outlet:	350
Lot Number:	54-401204472-1		

Expiration Date: May 17, 2021

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	198.9 PPM	+/- 2%
ETHYLENE	200.0 PPM	198.3 PPM	+/- 2%
METHANE	200.0 PPM	198.3 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

VOC0845 Expires: 7/17/2024
KMT
5/19/2021

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-402075924-1
Cylinder Number:	N698768	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	Apr 14, 2021	Valve Outlet:	350
Lot Number:	54-402075924-1		

Expiration Date: Apr 14, 2024

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	199.8 PPM	+/- 2%
ETHYLENE	200.0 PPM	207.3 PPM	+/- 2%
METHANE	200.0 PPM	200.2 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

METALS
CLP FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 7470A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273833	Analysis Date/Time:	07/21/2023 10:58
Analytical Prep Batch #:	130488	Prep. Date/Time:	07/18/2023 13:20

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 6010C	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273760	Analysis Date/Time:	07/19/2023 13:38
Analytical Prep Batch #:	130560	Prep. Date/Time:	07/18/2023 12:12

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	3340			15	60	120	120
7440-36-0	Total Antimony	10	U		4.4	10	20	20
7440-38-2	Total Arsenic	20	U		7.7	20	40	40
7440-39-3	Total Barium	141			0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U		0.75	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U		0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	95200			25	50	100	100
7440-47-3	Total Chromium	9.3			1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	3.9	J		1.0	2.5	5.0	5.0
7440-50-8	Total Copper	11.4	J		5.2	20	40	40
7439-89-6	Total Iron	6570			14	40	80	80
7439-92-1	Total Lead	5.7	J	M	1.4	5.0	10	10
7439-95-4	Total Magnesium	46600			10	25	40	40
7439-96-5	Total Manganese	573		M	1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	7.2			1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	2980			120	250	500	500
7782-49-2	Total Selenium	20	U		10	20	40	40
7440-22-4	Total Silver	2.5	U		1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	26200			200	500	700	700
7440-28-0	Total Thallium	20	U	M	6.8	20	40	40
7440-62-2	Total Vanadium	7.1		M	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	31.5		M	4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833

Lab Sample ID: 1351269

ICAL Calibration #: 07212023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	7/21/23 10:20	3.0	3.03	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1350325

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/19/23	09:18	12000000	11800000	98	90	110
Antimony	7/19/23	09:18	500000	512000	102	90	110
Arsenic	7/19/23	09:18	2000000	2140000	107	90	110
Barium	7/19/23	09:18	2000000	1870000	94	90	110
Beryllium	7/19/23	09:18	50000	52400	105	90	110
Cadmium	7/19/23	09:18	50000	53900	108	90	110
Calcium	7/19/23	09:18	10000000	10300000	103	90	110
Chromium	7/19/23	09:18	200000	210000	105	90	110
Cobalt	7/19/23	09:18	500000	513000	103	90	110
Copper	7/19/23	09:18	250000	243000	97	90	110
Iron	7/19/23	09:18	5000000	5360000	107	90	110
Lead	7/19/23	09:18	500000	465000	93	90	110
Magnesium	7/19/23	09:18	10000000	9570000	96	90	110
Manganese	7/19/23	09:18	500000	507000	101	90	110
Nickel	7/19/23	09:18	500000	521000	104	90	110
Selenium	7/19/23	09:18	2000000	2070000	104	90	110
Silver	7/19/23	09:18	50000	48500	97	90	110
Thallium	7/19/23	09:18	2000000	2020000	101	90	110
Total Potassium	7/19/23	09:18	100000	99600	100	90	110
Total Sodium	7/19/23	09:18	100000	98900	99	90	110
Vanadium	7/19/23	09:18	500000	509000	102	90	110
Zinc	7/19/23	09:18	500000	510000	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1350326

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/19/23	09:25	1200000	1220000	102	80	120
Antimony	7/19/23	09:25	60000	63200	105	80	120
Arsenic	7/19/23	09:25	60000	63400	106	80	120
Barium	7/19/23	09:25	30000	33600	112	80	120
Beryllium	7/19/23	09:25	12000	12900	108	80	120
Cadmium	7/19/23	09:25	15000	15400	103	80	120
Calcium	7/19/23	09:25	1500000	1630000	109	80	120
Chromium	7/19/23	09:25	30000	32100	107	80	120
Cobalt	7/19/23	09:25	30000	31800	106	80	120
Copper	7/19/23	09:25	30000	32000	107	80	120
Iron	7/19/23	09:25	900000	1020000	113	80	120
Lead	7/19/23	09:25	30000	30200	101	80	120
Magnesium	7/19/23	09:25	1500000	1660000	111	80	120
Manganese	7/19/23	09:25	30000	31800	106	80	120
Nickel	7/19/23	09:25	30000	32600	109	80	120
Selenium	7/19/23	09:25	60000	61800	103	80	120
Thallium	7/19/23	09:25	60000	66100	110	80	120
Total Potassium	7/19/23	09:25	3000	3520	117	80	120
Total Sodium	7/19/23	09:25	6000	6180	103	80	120
Vanadium	7/19/23	09:25	30000	31300	104	80	120
Zinc	7/19/23	09:25	30000	31400	105	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1350330

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	7/19/23 10:16	10000	11200	112	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1353287

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/26/23	11:10	12000000	12000000	100	90	110
Antimony	7/26/23	11:10	500000	520000	104	90	110
Arsenic	7/26/23	11:10	2000000	2060000	103	90	110
Barium	7/26/23	11:10	2000000	2090000	104	90	110
Beryllium	7/26/23	11:10	50000	51100	102	90	110
Cadmium	7/26/23	11:10	50000	49500	99	90	110
Calcium	7/26/23	11:10	10000000	9970000	100	90	110
Chromium	7/26/23	11:10	200000	195000	98	90	110
Cobalt	7/26/23	11:10	500000	522000	104	90	110
Copper	7/26/23	11:10	250000	253000	101	90	110
Iron	7/26/23	11:10	5000000	5010000	100	90	110
Lead	7/26/23	11:10	500000	479000	96	90	110
Magnesium	7/26/23	11:10	10000000	9420000	94	90	110
Manganese	7/26/23	11:10	500000	504000	101	90	110
Nickel	7/26/23	11:10	500000	519000	104	90	110
Selenium	7/26/23	11:10	2000000	2090000	104	90	110
Silver	7/26/23	11:10	50000	48100	96	90	110
Thallium	7/26/23	11:10	2000000	2030000	102	90	110
Total Potassium	7/26/23	11:10	100000	104000	104	90	110
Total Sodium	7/26/23	11:10	100000	97000	97	90	110
Vanadium	7/26/23	11:10	500000	500000	100	90	110
Zinc	7/26/23	11:10	500000	502000	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1353288

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/26/23	11:25	1200000	1300000	108	80	120
Antimony	7/26/23	11:25	60000	65700	110	80	120
Arsenic	7/26/23	11:25	60000	58600	98	80	120
Barium	7/26/23	11:25	30000	33600	112	80	120
Beryllium	7/26/23	11:25	12000	12900	108	80	120
Cadmium	7/26/23	11:25	15000	15400	103	80	120
Calcium	7/26/23	11:25	1500000	1660000	111	80	120
Chromium	7/26/23	11:25	30000	31100	104	80	120
Cobalt	7/26/23	11:25	30000	33400	111	80	120
Copper	7/26/23	11:25	30000	34700	116	80	120
Iron	7/26/23	11:25	900000	985000	109	80	120
Lead	7/26/23	11:25	30000	32500	108	80	120
Magnesium	7/26/23	11:25	1500000	1650000	110	80	120
Manganese	7/26/23	11:25	30000	32000	107	80	120
Nickel	7/26/23	11:25	30000	34100	114	80	120
Selenium	7/26/23	11:25	60000	69600	116	80	120
Thallium	7/26/23	11:25	60000	68800	115	80	120
Total Potassium	7/26/23	11:25	3000	3400	113	80	120
Total Sodium	7/26/23	11:25	6000	6110	102	80	120
Vanadium	7/26/23	11:25	30000	31000	103	80	120
Zinc	7/26/23	11:25	30000	36000	120	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1353292

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	7/26/23 12:18	10000	10600	106	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833

Lab Sample ID: 1351271

ICAL Calibration #: 07212023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	7/21/23 11:01	3.0	2.91	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833 Lab Sample ID: 1351273

ICAL Calibration #: 07212023 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	7/21/23 11:39	3.0	2.80	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1350331

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/19/23	13:03	5000000	4830000	97	90	110
Antimony	7/19/23	13:03	5000000	4860000	97	90	110
Arsenic	7/19/23	13:03	5000000	4980000	100	90	110
Barium	7/19/23	13:03	5000000	4860000	97	90	110
Beryllium	7/19/23	13:03	500000	506000	101	90	110
Cadmium	7/19/23	13:03	500000	488000	98	90	110
Calcium	7/19/23	13:03	5000000	4980000	100	90	110
Chromium	7/19/23	13:03	5000000	5060000	101	90	110
Cobalt	7/19/23	13:03	5000000	4840000	97	90	110
Copper	7/19/23	13:03	5000000	4890000	98	90	110
Iron	7/19/23	13:03	5000000	5080000	102	90	110
Lead	7/19/23	13:03	5000000	4690000	94	90	110
Magnesium	7/19/23	13:03	5000000	5050000	101	90	110
Manganese	7/19/23	13:03	5000000	4770000	95	90	110
Nickel	7/19/23	13:03	5000000	4900000	98	90	110
Selenium	7/19/23	13:03	5000000	5000000	100	90	110
Thallium	7/19/23	13:03	5000000	4920000	98	90	110
Total Potassium	7/19/23	13:03	50000	48900	98	90	110
Total Sodium	7/19/23	13:03	50000	48900	98	90	110
Vanadium	7/19/23	13:03	5000000	5100000	102	90	110
Zinc	7/19/23	13:03	5000000	4900000	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1350332

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/19/23	13:10	500000	519000	104	90	110
Antimony	7/19/23	13:10	500000	495000	99	90	110
Arsenic	7/19/23	13:10	500000	503000	101	90	110
Barium	7/19/23	13:10	500000	534000	107	90	110
Beryllium	7/19/23	13:10	50000	51100	102	90	110
Cadmium	7/19/23	13:10	50000	49500	99	90	110
Calcium	7/19/23	13:10	500000	529000	106	90	110
Chromium	7/19/23	13:10	500000	512000	102	90	110
Cobalt	7/19/23	13:10	500000	502000	100	90	110
Copper	7/19/23	13:10	500000	503000	101	90	110
Iron	7/19/23	13:10	500000	523000	105	90	110
Lead	7/19/23	13:10	500000	478000	96	90	110
Magnesium	7/19/23	13:10	500000	530000	106	90	110
Manganese	7/19/23	13:10	500000	499000	100	90	110
Nickel	7/19/23	13:10	500000	516000	103	90	110
Selenium	7/19/23	13:10	500000	502000	100	90	110
Silver	7/19/23	13:10	50000	51000	102	90	110
Thallium	7/19/23	13:10	500000	542000	108	90	110
Total Potassium	7/19/23	13:10	5000	5030	101	90	110
Total Sodium	7/19/23	13:10	5000	5020	100	90	110
Vanadium	7/19/23	13:10	500000	487000	97	90	110
Zinc	7/19/23	13:10	500000	498000	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1350336

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/19/23	14:29	5000000	4840000	97	90	110
Antimony	7/19/23	14:29	5000000	4880000	98	90	110
Arsenic	7/19/23	14:29	5000000	4980000	100	90	110
Barium	7/19/23	14:29	5000000	4840000	97	90	110
Beryllium	7/19/23	14:29	500000	502000	100	90	110
Cadmium	7/19/23	14:29	500000	487000	97	90	110
Calcium	7/19/23	14:29	5000000	4970000	99	90	110
Chromium	7/19/23	14:29	5000000	5020000	100	90	110
Cobalt	7/19/23	14:29	5000000	4820000	96	90	110
Copper	7/19/23	14:29	5000000	4870000	97	90	110
Iron	7/19/23	14:29	5000000	5060000	101	90	110
Lead	7/19/23	14:29	5000000	4700000	94	90	110
Magnesium	7/19/23	14:29	5000000	4990000	100	90	110
Manganese	7/19/23	14:29	5000000	4760000	95	90	110
Nickel	7/19/23	14:29	5000000	4900000	98	90	110
Selenium	7/19/23	14:29	5000000	5000000	100	90	110
Thallium	7/19/23	14:29	5000000	4910000	98	90	110
Total Potassium	7/19/23	14:29	50000	48800	98	90	110
Total Sodium	7/19/23	14:29	50000	48900	98	90	110
Vanadium	7/19/23	14:29	5000000	5050000	101	90	110
Zinc	7/19/23	14:29	5000000	4890000	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1350337

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/19/23	14:36	500000	526000	105	90	110
Antimony	7/19/23	14:36	500000	502000	100	90	110
Arsenic	7/19/23	14:36	500000	501000	100	90	110
Barium	7/19/23	14:36	500000	528000	106	90	110
Beryllium	7/19/23	14:36	50000	50900	102	90	110
Cadmium	7/19/23	14:36	50000	49400	99	90	110
Calcium	7/19/23	14:36	500000	527000	105	90	110
Chromium	7/19/23	14:36	500000	507000	101	90	110
Cobalt	7/19/23	14:36	500000	507000	101	90	110
Copper	7/19/23	14:36	500000	511000	102	90	110
Iron	7/19/23	14:36	500000	519000	104	90	110
Lead	7/19/23	14:36	500000	479000	96	90	110
Magnesium	7/19/23	14:36	500000	532000	106	90	110
Manganese	7/19/23	14:36	500000	500000	100	90	110
Nickel	7/19/23	14:36	500000	516000	103	90	110
Selenium	7/19/23	14:36	500000	512000	102	90	110
Silver	7/19/23	14:36	50000	50700	101	90	110
Thallium	7/19/23	14:36	500000	541000	108	90	110
Total Potassium	7/19/23	14:36	5000	5040	101	90	110
Total Sodium	7/19/23	14:36	5000	5040	101	90	110
Vanadium	7/19/23	14:36	500000	487000	97	90	110
Zinc	7/19/23	14:36	500000	496000	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1353293

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/26/23	16:40	5000000	4640000	93	90	110
Antimony	7/26/23	16:40	5000000	4760000	95	90	110
Arsenic	7/26/23	16:40	5000000	4730000	95	90	110
Barium	7/26/23	16:40	5000000	4690000	94	90	110
Beryllium	7/26/23	16:40	500000	468000	94	90	110
Cadmium	7/26/23	16:40	500000	471000	94	90	110
Calcium	7/26/23	16:40	5000000	4760000	95	90	110
Chromium	7/26/23	16:40	5000000	4910000	98	90	110
Cobalt	7/26/23	16:40	5000000	4580000	92	90	110
Copper	7/26/23	16:40	5000000	4680000	94	90	110
Iron	7/26/23	16:40	5000000	4660000	93	90	110
Lead	7/26/23	16:40	5000000	4590000	92	90	110
Magnesium	7/26/23	16:40	5000000	4820000	96	90	110
Manganese	7/26/23	16:40	5000000	4670000	93	90	110
Nickel	7/26/23	16:40	5000000	4790000	96	90	110
Selenium	7/26/23	16:40	5000000	4910000	98	90	110
Thallium	7/26/23	16:40	5000000	4670000	93	90	110
Total Potassium	7/26/23	16:40	50000	49700	99	90	110
Total Sodium	7/26/23	16:40	50000	49600	99	90	110
Vanadium	7/26/23	16:40	5000000	4750000	95	90	110
Zinc	7/26/23	16:40	5000000	4720000	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1353294

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/26/23	16:47	500000	489000	98	90	110
Antimony	7/26/23	16:47	500000	511000	102	90	110
Arsenic	7/26/23	16:47	500000	479000	96	90	110
Barium	7/26/23	16:47	500000	509000	102	90	110
Beryllium	7/26/23	16:47	50000	47400	95	90	110
Cadmium	7/26/23	16:47	50000	48600	97	90	110
Calcium	7/26/23	16:47	500000	498000	100	90	110
Chromium	7/26/23	16:47	500000	475000	95	90	110
Cobalt	7/26/23	16:47	500000	498000	100	90	110
Copper	7/26/23	16:47	500000	489000	98	90	110
Iron	7/26/23	16:47	500000	479000	96	90	110
Lead	7/26/23	16:47	500000	467000	93	90	110
Magnesium	7/26/23	16:47	500000	510000	102	90	110
Manganese	7/26/23	16:47	500000	488000	98	90	110
Nickel	7/26/23	16:47	500000	505000	101	90	110
Selenium	7/26/23	16:47	500000	513000	103	90	110
Silver	7/26/23	16:47	50000	48000	96	90	110
Thallium	7/26/23	16:47	500000	520000	104	90	110
Total Potassium	7/26/23	16:47	5000	4880	98	90	110
Total Sodium	7/26/23	16:47	5000	5050	101	90	110
Vanadium	7/26/23	16:47	500000	456000	91	90	110
Zinc	7/26/23	16:47	500000	475000	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1353296

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/26/23	18:15	5000000	4600000	92	90	110
Antimony	7/26/23	18:15	5000000	4760000	95	90	110
Arsenic	7/26/23	18:15	5000000	4660000	93	90	110
Barium	7/26/23	18:15	5000000	4680000	94	90	110
Beryllium	7/26/23	18:15	500000	468000	94	90	110
Cadmium	7/26/23	18:15	500000	476000	95	90	110
Calcium	7/26/23	18:15	5000000	4710000	94	90	110
Chromium	7/26/23	18:15	5000000	4920000	98	90	110
Cobalt	7/26/23	18:15	5000000	4550000	91	90	110
Copper	7/26/23	18:15	5000000	4720000	94	90	110
Iron	7/26/23	18:15	5000000	4680000	94	90	110
Lead	7/26/23	18:15	5000000	4600000	92	90	110
Magnesium	7/26/23	18:15	5000000	4800000	96	90	110
Manganese	7/26/23	18:15	5000000	4680000	94	90	110
Nickel	7/26/23	18:15	5000000	4780000	96	90	110
Selenium	7/26/23	18:15	5000000	4880000	98	90	110
Thallium	7/26/23	18:15	5000000	4580000	92	90	110
Total Potassium	7/26/23	18:15	50000	49200	98	90	110
Total Sodium	7/26/23	18:15	50000	50000	100	90	110
Vanadium	7/26/23	18:15	5000000	4720000	94	90	110
Zinc	7/26/23	18:15	5000000	4690000	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1353297

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	7/26/23	18:22	500000	483000	97	90	110
Antimony	7/26/23	18:22	500000	513000	103	90	110
Arsenic	7/26/23	18:22	500000	483000	97	90	110
Barium	7/26/23	18:22	500000	510000	102	90	110
Beryllium	7/26/23	18:22	50000	47200	94	90	110
Cadmium	7/26/23	18:22	50000	48800	98	90	110
Calcium	7/26/23	18:22	500000	497000	99	90	110
Chromium	7/26/23	18:22	500000	480000	96	90	110
Cobalt	7/26/23	18:22	500000	494000	99	90	110
Copper	7/26/23	18:22	500000	490000	98	90	110
Iron	7/26/23	18:22	500000	480000	96	90	110
Lead	7/26/23	18:22	500000	468000	94	90	110
Magnesium	7/26/23	18:22	500000	513000	103	90	110
Manganese	7/26/23	18:22	500000	485000	97	90	110
Nickel	7/26/23	18:22	500000	505000	101	90	110
Selenium	7/26/23	18:22	500000	505000	101	90	110
Silver	7/26/23	18:22	50000	47000	94	90	110
Thallium	7/26/23	18:22	500000	511000	102	90	110
Total Potassium	7/26/23	18:22	5000	4870	97	90	110
Total Sodium	7/26/23	18:22	5000	5100	102	90	110
Vanadium	7/26/23	18:22	500000	453000	91	90	110
Zinc	7/26/23	18:22	500000	468000	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833

Lab Sample ID: 1351270

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: 07212023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	07/21/2023 10:26	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-1

ICB

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1350327

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	07/19/2023 09:39	-1390	U	15	60000
Antimony	07/19/2023 09:39	310.0		4.4	10000
Arsenic	07/19/2023 09:39	-1200	U	7.7	20000
Barium	07/19/2023 09:39	-65.0	U	0.71	2000
Beryllium	07/19/2023 09:39	480.0		0.75	4000
Cadmium	07/19/2023 09:39	17.00		0.41	1000
Calcium	07/19/2023 09:39	543.0		25	50000
Chromium	07/19/2023 09:39	186.0		1.1	2500
Cobalt	07/19/2023 09:39	-133	U	1.0	2500
Copper	07/19/2023 09:39	991.0		5.2	20000
Iron	07/19/2023 09:39	1920		14	40000
Lead	07/19/2023 09:39	1080		1.4	5000
Magnesium	07/19/2023 09:39	263.0		10	20000
Manganese	07/19/2023 09:39	20.00		1.4	2500
Nickel	07/19/2023 09:39	27.00		1.5	2500
Selenium	07/19/2023 09:39	-373	U	10	20000
Silver	07/19/2023 09:39	360.0		1.1	2500
Thallium	07/19/2023 09:39	-1090	U	6.8	20000
Total Potassium	07/19/2023 09:39	261.0		120	500
Total Sodium	07/19/2023 09:39	31.00	U	200	700
Vanadium	07/19/2023 09:39	160.0		1.3	2500
Zinc	07/19/2023 09:39	79.00		4.5	10000

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-1

ICB

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1353289

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	07/26/2023 11:32	-191	U	15	60000
Antimony	07/26/2023 11:32	1140		4.4	10000
Arsenic	07/26/2023 11:32	-3030	U	7.7	20000
Barium	07/26/2023 11:32	-91.0	U	0.71	2000
Beryllium	07/26/2023 11:32	30.00		0.75	4000
Cadmium	07/26/2023 11:32	-60.0	U	0.41	1000
Calcium	07/26/2023 11:32	243.0		25	50000
Chromium	07/26/2023 11:32	-406	U	1.1	2500
Cobalt	07/26/2023 11:32	-141	U	1.0	2500
Copper	07/26/2023 11:32	523.0		5.2	20000
Iron	07/26/2023 11:32	-3.00	U	14	40
Lead	07/26/2023 11:32	607.0		1.4	5000
Magnesium	07/26/2023 11:32	267.0		10	20000
Manganese	07/26/2023 11:32	26.00		1.4	2500
Nickel	07/26/2023 11:32	-71.0	U	1.5	2500
Selenium	07/26/2023 11:32	115.0		10	20000
Silver	07/26/2023 11:32	84.00		1.1	2500
Thallium	07/26/2023 11:32	665.0		6.8	20000
Total Potassium	07/26/2023 11:32	-395	U	120	500
Total Sodium	07/26/2023 11:32	9.00	U	200	700
Vanadium	07/26/2023 11:32	-398	U	1.3	2500
Zinc	07/26/2023 11:32	-6.00	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833

Lab Sample ID: 1351272

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: 07212023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	07/21/2023 11:07	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833

Lab Sample ID: 1351274

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: 07212023

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	07/21/2023 11:45	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1350333

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	07/19/2023 13:17	-1040	U	15	60000
Antimony	07/19/2023 13:17	3150		4.4	10000
Arsenic	07/19/2023 13:17	-2450	U	7.7	20000
Barium	07/19/2023 13:17	83.00		0.71	2000
Beryllium	07/19/2023 13:17	10.00		0.75	4000
Cadmium	07/19/2023 13:17	17.00		0.41	1000
Calcium	07/19/2023 13:17	1110		25	50000
Chromium	07/19/2023 13:17	-287	U	1.1	2500
Cobalt	07/19/2023 13:17	-2.00	U	1.0	2500
Copper	07/19/2023 13:17	58.00		5.2	20000
Iron	07/19/2023 13:17	1180		14	40000
Lead	07/19/2023 13:17	648.0		1.4	5000
Magnesium	07/19/2023 13:17	628.0		10	20000
Manganese	07/19/2023 13:17	82.00		1.4	2500
Nickel	07/19/2023 13:17	335.0		1.5	2500
Selenium	07/19/2023 13:17	607.0		10	20000
Silver	07/19/2023 13:17	463.0		1.1	2500
Thallium	07/19/2023 13:17	1190		6.8	20000
Total Potassium	07/19/2023 13:17	-89.0	U	120	250
Total Sodium	07/19/2023 13:17	17.00	U	200	500
Vanadium	07/19/2023 13:17	-116	U	1.3	2500
Zinc	07/19/2023 13:17	332.0		4.5	10000

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1350338

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	07/19/2023 14:43	-1300	U	15	60000
Antimony	07/19/2023 14:43	2810		4.4	10000
Arsenic	07/19/2023 14:43	-347	U	7.7	20000
Barium	07/19/2023 14:43	-41.0	U	0.71	2000
Beryllium	07/19/2023 14:43	494.0		0.75	4000
Cadmium	07/19/2023 14:43	-46.0	U	0.41	1000
Calcium	07/19/2023 14:43	1620		25	50000
Chromium	07/19/2023 14:43	28.00		1.1	2500
Cobalt	07/19/2023 14:43	230.0		1.0	2500
Copper	07/19/2023 14:43	-22.0	U	5.2	20000
Iron	07/19/2023 14:43	695.0		14	40000
Lead	07/19/2023 14:43	256.0		1.4	5000
Magnesium	07/19/2023 14:43	800.0		10	20000
Manganese	07/19/2023 14:43	90.00		1.4	2500
Nickel	07/19/2023 14:43	-85.0	U	1.5	2500
Selenium	07/19/2023 14:43	339.0		10	20000
Silver	07/19/2023 14:43	531.0		1.1	2500
Thallium	07/19/2023 14:43	16.00		6.8	20000
Total Potassium	07/19/2023 14:43	-13.0	U	120	250
Total Sodium	07/19/2023 14:43	12.00	U	200	500
Vanadium	07/19/2023 14:43	166.0		1.3	2500
Zinc	07/19/2023 14:43	330.0		4.5	10000

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1353295

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	07/26/2023 16:54	397.0		15	60000
Antimony	07/26/2023 16:54	1030		4.4	10000
Arsenic	07/26/2023 16:54	-2030	U	7.7	20000
Barium	07/26/2023 16:54	120.0		0.71	2000
Beryllium	07/26/2023 16:54	-84.0	U	0.75	4000
Cadmium	07/26/2023 16:54	33.00		0.41	1000
Calcium	07/26/2023 16:54	245.0		25	50000
Chromium	07/26/2023 16:54	86.00		1.1	2500
Cobalt	07/26/2023 16:54	158.0		1.0	2500
Copper	07/26/2023 16:54	-287	U	5.2	20000
Iron	07/26/2023 16:54	-224	U	14	40000
Lead	07/26/2023 16:54	340.0		1.4	5000
Magnesium	07/26/2023 16:54	306.0		10	20000
Manganese	07/26/2023 16:54	66.00		1.4	2500
Nickel	07/26/2023 16:54	-89.0	U	1.5	2500
Selenium	07/26/2023 16:54	47.00		10	2000
Silver	07/26/2023 16:54	396.0		1.1	2500
Thallium	07/26/2023 16:54	1420		6.8	20000
Total Potassium	07/26/2023 16:54	6.00	U	120	250
Total Sodium	07/26/2023 16:54	-4.00	U	200	500
Vanadium	07/26/2023 16:54	354.0		1.3	2500
Zinc	07/26/2023 16:54	31.00		4.5	10000

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760

Lab Sample ID: 1353298

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	07/26/2023 18:28	396.0		15	60000
Antimony	07/26/2023 18:28	4310		4.4	10000
Arsenic	07/26/2023 18:28	-1520	U	7.7	20000
Barium	07/26/2023 18:28	-74.0	U	0.71	2000
Beryllium	07/26/2023 18:28	-24.0	U	0.75	4000
Cadmium	07/26/2023 18:28	-86.0	U	0.41	1000
Calcium	07/26/2023 18:28	884.0		25	5000
Chromium	07/26/2023 18:28	-391	U	1.1	2500
Cobalt	07/26/2023 18:28	35.00		1.0	2500
Copper	07/26/2023 18:28	38.00		5.2	20000
Iron	07/26/2023 18:28	-735	U	14	40000
Lead	07/26/2023 18:28	691.0		1.4	5000
Magnesium	07/26/2023 18:28	658.0		10	20000
Manganese	07/26/2023 18:28	91.00		1.4	2500
Nickel	07/26/2023 18:28	97.00		1.5	2500
Selenium	07/26/2023 18:28	4650		10	20000
Silver	07/26/2023 18:28	744.0		1.1	2500
Thallium	07/26/2023 18:28	-1190	U	6.8	20000
Total Potassium	07/26/2023 18:28	19.00	U	120	250
Total Sodium	07/26/2023 18:28	8.00	U	200	500
Vanadium	07/26/2023 18:28	83.00		1.3	2500
Zinc	07/26/2023 18:28	200.0		4.5	10000

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273833 Lab Sample ID: 1346624

Analytical Prep Batch #: 130488 Preparation Date/Time: 07/18/2023 13:20

ICAL Calibration #: 07212023 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Mercury	07/21/2023 10:48	0.00200	U	0.020	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-3

MB

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1349319

Analytical Prep Batch #: 130560 Preparation Date/Time: 07/18/2023 12:12

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	07/19/2023 13:31	0.726	U	15	60	
Total Antimony	07/19/2023 13:31	2.42	U	4.4	10	
Total Arsenic	07/19/2023 13:31	-2.83	U	7.7	20	
Total Barium	07/19/2023 13:31	-0.263	U	0.71	2.0	
Total Beryllium	07/19/2023 13:31	0.126	U	0.75	4.0	
Total Cadmium	07/19/2023 13:31	-0.0110	U	0.41	1.0	
Total Calcium	07/19/2023 13:31	13.40	U	25	50	
Total Chromium	07/19/2023 13:31	-0.206	U	1.1	2.5	
Total Cobalt	07/19/2023 13:31	-0.0410	U	1.0	2.5	
Total Copper	07/19/2023 13:31	1.35	U	5.2	20	
Total Iron	07/19/2023 13:31	3.67	U	14	40	
Total Lead	07/19/2023 13:31	0.826	U	1.4	5.0	
Total Magnesium	07/19/2023 13:31	3.23	U	10	20	
Total Manganese	07/19/2023 13:31	0.114	U	1.4	2.5	
Total Nickel	07/19/2023 13:31	-0.100	U	1.5	2.5	
Total Potassium	07/19/2023 13:31	0.149	U	120	250	
Total Selenium	07/19/2023 13:31	-2.44	U	10	20	
Total Silver	07/19/2023 13:31	1.13		1.1	2.5	FAIL
Total Sodium	07/19/2023 13:31	0.0550	U	200	350	
Total Thallium	07/19/2023 13:31	3.05	U	6.8	20	
Total Vanadium	07/19/2023 13:31	0.470	U	1.3	2.5	
Total Zinc	07/19/2023 13:31	0.469	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1349319

Analytical Prep Batch #: 130560 Preparation Date/Time: 07/18/2023 12:12

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	07/19/2023 13:31	0.726	U	15	60	
Total Antimony	07/19/2023 13:31	2.42	U	4.4	10	
Total Arsenic	07/19/2023 13:31	-2.83	U	7.7	20	
Total Barium	07/19/2023 13:31	-0.263	U	0.71	2.0	
Total Beryllium	07/19/2023 13:31	0.126	U	0.75	4.0	
Total Cadmium	07/19/2023 13:31	-0.0110	U	0.41	1.0	
Total Calcium	07/19/2023 13:31	13.40	U	25	50	
Total Chromium	07/19/2023 13:31	-0.206	U	1.1	2.5	
Total Cobalt	07/19/2023 13:31	-0.0410	U	1.0	2.5	
Total Copper	07/19/2023 13:31	1.35	U	5.2	20	
Total Iron	07/19/2023 13:31	3.67	U	14	40	
Total Lead	07/19/2023 13:31	0.826	U	1.4	5.0	
Total Magnesium	07/19/2023 13:31	3.23	U	10	20	
Total Manganese	07/19/2023 13:31	0.114	U	1.4	2.5	
Total Nickel	07/19/2023 13:31	-0.100	U	1.5	2.5	
Total Potassium	07/19/2023 13:31	0.149	U	120	250	
Total Selenium	07/19/2023 13:31	-2.44	U	10	20	
Total Silver	07/19/2023 13:31	1.13		1.1	2.5	FAIL
Total Sodium	07/19/2023 13:31	0.0550	U	200	350	
Total Thallium	07/19/2023 13:31	3.05	U	6.8	20	
Total Vanadium	07/19/2023 13:31	0.470	U	1.3	2.5	
Total Zinc	07/19/2023 13:31	0.469	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273760 Lab Sample ID: 1349319

Analytical Prep Batch #: 130560 Preparation Date/Time: 07/18/2023 12:12

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	07/19/2023 13:31	0.726	U	15	60	
Total Antimony	07/19/2023 13:31	2.42	U	4.4	10	
Total Arsenic	07/19/2023 13:31	-2.83	U	7.7	20	
Total Barium	07/19/2023 13:31	-0.263	U	0.71	2.0	
Total Beryllium	07/19/2023 13:31	0.126	U	0.75	4.0	
Total Cadmium	07/19/2023 13:31	-0.0110	U	0.41	1.0	
Total Calcium	07/19/2023 13:31	13.40	U	25	50	
Total Chromium	07/19/2023 13:31	-0.206	U	1.1	2.5	
Total Cobalt	07/19/2023 13:31	-0.0410	U	1.0	2.5	
Total Copper	07/19/2023 13:31	1.35	U	5.2	20	
Total Iron	07/19/2023 13:31	3.67	U	14	40	
Total Lead	07/19/2023 13:31	0.826	U	1.4	5.0	
Total Magnesium	07/19/2023 13:31	3.23	U	10	20	
Total Manganese	07/19/2023 13:31	0.114	U	1.4	2.5	
Total Nickel	07/19/2023 13:31	-0.100	U	1.5	2.5	
Total Potassium	07/19/2023 13:31	0.149	U	120	250	
Total Selenium	07/19/2023 13:31	-2.44	U	10	20	
Total Silver	07/19/2023 13:31	1.13		1.1	2.5	FAIL
Total Sodium	07/19/2023 13:31	0.0550	U	200	350	
Total Thallium	07/19/2023 13:31	3.05	U	6.8	20	
Total Vanadium	07/19/2023 13:31	0.470	U	1.3	2.5	
Total Zinc	07/19/2023 13:31	0.469	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 178914
ICS Source: SPEX

Analytical Run #: 273760
Lab Sample ID: 1350328
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	07/19/2023 09:54	500000000	503000000	101	80	120
Antimony	07/19/2023 09:54	0	-1.00	0	-10	10
Arsenic	07/19/2023 09:54	0	-352	0	-20000	20000
Barium	07/19/2023 09:54	0	0	0	-2.0	2.0
Beryllium	07/19/2023 09:54	0	0	0	-4.0	4.0
Cadmium	07/19/2023 09:54	0	-19.0	0	-1000	1000
Calcium	07/19/2023 09:54	500000000	523000000	105	80	120
Chromium	07/19/2023 09:54	0	-446	0	-13000	13000
Cobalt	07/19/2023 09:54	0	-440	0	-2500	2500
Copper	07/19/2023 09:54	0	16.00	0	-20	20
Iron	07/19/2023 09:54	500000000	451000000	90	80	120
Lead	07/19/2023 09:54	0	0	0	-2.0	2.0
Magnesium	07/19/2023 09:54	500000000	525000000	105	80	120
Manganese	07/19/2023 09:54	0	138.0	0	-7300	7300
Nickel	07/19/2023 09:54	0	-459	0	-2500	2500
Selenium	07/19/2023 09:54	0	406.0	0	-20000	20000
Silver	07/19/2023 09:54	0	-646	0	-2500	2500
Thallium	07/19/2023 09:54	0	3340	0	-20000	20000
Total Potassium	07/19/2023 09:54	0	54.00	0	-500	500
Total Sodium	07/19/2023 09:54	0	34.00	0	-700	700
Vanadium	07/19/2023 09:54	10000000	10700	0	8000	12000
Zinc	07/19/2023 09:54	0	-1.00	0	-10	10

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 178914
ICS Source: SPEX

Analytical Run #: 273760
Lab Sample ID: 1353290
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	07/26/2023 11:54	500000000	517000000	103	80	120
Antimony	07/26/2023 11:54	0	-2.00	0	-10	10
Arsenic	07/26/2023 11:54	0	-169	0	-20000	20000
Barium	07/26/2023 11:54	0	663.0	0	-2000	2000
Beryllium	07/26/2023 11:54	0	-17.0	0	-4000	4000
Cadmium	07/26/2023 11:54	0	0	0	-1.0	1.0
Calcium	07/26/2023 11:54	500000000	490000000	98	80	120
Chromium	07/26/2023 11:54	0	0	0	-13	13
Cobalt	07/26/2023 11:54	0	-137	0	-2500	2500
Copper	07/26/2023 11:54	0	-7.00	0	-20	20
Iron	07/26/2023 11:54	500000000	421000000	84	80	120
Lead	07/26/2023 11:54	0	0	0	-2.0	2.0
Magnesium	07/26/2023 11:54	500000000	529000000	106	80	120
Manganese	07/26/2023 11:54	0	139.0	0	-7300	7300
Nickel	07/26/2023 11:54	0	0	0	-2.5	2.5
Selenium	07/26/2023 11:54	0	-3230	0	-20000	20000
Silver	07/26/2023 11:54	0	-315	0	-2500	2500
Thallium	07/26/2023 11:54	0	1.00	0	-20	20
Total Potassium	07/26/2023 11:54	0	-1.00	0	-500	500
Total Sodium	07/26/2023 11:54	0	-25.0	0	-700	700
Vanadium	07/26/2023 11:54	10000000	10700	0	8000	12000
Zinc	07/26/2023 11:54	0	-1730	0	-10000	10000

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 178914
ICS Source: SPEX, Ultra

Analytical Run #: 273760
Lab Sample ID: 1350329
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	07/19/2023 10:02	500000000	448000000	90	80	120
Antimony	07/19/2023 10:02	500000	491000	98	80	120
Arsenic	07/19/2023 10:02	500000	541000	108	80	120
Barium	07/19/2023 10:02	500000	529000	106	80	120
Beryllium	07/19/2023 10:02	500000	495000	99	80	120
Cadmium	07/19/2023 10:02	500000	503000	101	80	120
Calcium	07/19/2023 10:02	500000000	466000000	93	80	120
Chromium	07/19/2023 10:02	500000	496000	99	80	120
Cobalt	07/19/2023 10:02	500000	474000	95	80	120
Copper	07/19/2023 10:02	500000	507000	101	80	120
Iron	07/19/2023 10:02	500000000	455000000	91	80	120
Lead	07/19/2023 10:02	500000	431000	86	80	120
Magnesium	07/19/2023 10:02	500000000	466000000	93	80	120
Manganese	07/19/2023 10:02	500000	557000	111	80	120
Nickel	07/19/2023 10:02	500000	474000	95	80	120
Selenium	07/19/2023 10:02	500000	498000	100	80	120
Silver	07/19/2023 10:02	500000	563000	113	80	120
Thallium	07/19/2023 10:02	500000	456000	91	80	120
Total Potassium	07/19/2023 10:02	100000	101000	101	80	120
Total Sodium	07/19/2023 10:02	100000	97900	98	80	120
Vanadium	07/19/2023 10:02	500000	559000	112	80	120
Zinc	07/19/2023 10:02	500000	441000	88	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 178914
ICS Source: SPEX, Ultra

Analytical Run #: 273760
Lab Sample ID: 1350329
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	07/19/2023 10:02	500000000	448000000	90	80	120
Antimony	07/19/2023 10:02	500000	491000	98	80	120
Arsenic	07/19/2023 10:02	500000	541000	108	80	120
Barium	07/19/2023 10:02	500000	529000	106	80	120
Beryllium	07/19/2023 10:02	500000	495000	99	80	120
Cadmium	07/19/2023 10:02	500000	503000	101	80	120
Calcium	07/19/2023 10:02	500000000	466000000	93	80	120
Chromium	07/19/2023 10:02	500000	496000	99	80	120
Cobalt	07/19/2023 10:02	500000	474000	95	80	120
Copper	07/19/2023 10:02	500000	507000	101	80	120
Iron	07/19/2023 10:02	500000000	455000000	91	80	120
Lead	07/19/2023 10:02	500000	431000	86	80	120
Magnesium	07/19/2023 10:02	500000000	466000000	93	80	120
Manganese	07/19/2023 10:02	500000	557000	111	80	120
Nickel	07/19/2023 10:02	500000	474000	95	80	120
Selenium	07/19/2023 10:02	500000	498000	100	80	120
Silver	07/19/2023 10:02	500000	563000	113	80	120
Thallium	07/19/2023 10:02	500000	456000	91	80	120
Total Potassium	07/19/2023 10:02	100000	101000	101	80	120
Total Sodium	07/19/2023 10:02	100000	97900	98	80	120
Vanadium	07/19/2023 10:02	500000	559000	112	80	120
Zinc	07/19/2023 10:02	500000	441000	88	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 178914
ICS Source: SPEX, Ultra

Analytical Run #: 273760
Lab Sample ID: 1353291
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	07/26/2023 12:02	500000000	450000000	90	80	120
Antimony	07/26/2023 12:02	500000	477000	95	80	120
Arsenic	07/26/2023 12:02	500000	513000	103	80	120
Barium	07/26/2023 12:02	500000	505000	101	80	120
Beryllium	07/26/2023 12:02	500000	479000	96	80	120
Cadmium	07/26/2023 12:02	500000	469000	94	80	120
Calcium	07/26/2023 12:02	500000000	433000000	87	80	120
Chromium	07/26/2023 12:02	500000	458000	92	80	120
Cobalt	07/26/2023 12:02	500000	467000	93	80	120
Copper	07/26/2023 12:02	500000	588000	118	80	120
Iron	07/26/2023 12:02	500000000	421000000	84	80	120
Lead	07/26/2023 12:02	500000	403000	81	80	120
Magnesium	07/26/2023 12:02	500000000	466000000	93	80	120
Manganese	07/26/2023 12:02	500000	500000	100	80	120
Nickel	07/26/2023 12:02	500000	459000	92	80	120
Selenium	07/26/2023 12:02	500000	481000	96	80	120
Silver	07/26/2023 12:02	500000	546000	109	80	120
Thallium	07/26/2023 12:02	500000	444000	89	80	120
Total Potassium	07/26/2023 12:02	100000	104000	104	80	120
Total Sodium	07/26/2023 12:02	100000	96100	96	80	120
Vanadium	07/26/2023 12:02	500000	485000	97	80	120
Zinc	07/26/2023 12:02	500000	424000	85	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 178914
ICS Source: SPEX, Ultra

Analytical Run #: 273760
Lab Sample ID: 1353291
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	07/26/2023 12:02	500000000	450000000	90	80	120
Antimony	07/26/2023 12:02	500000	477000	95	80	120
Arsenic	07/26/2023 12:02	500000	513000	103	80	120
Barium	07/26/2023 12:02	500000	505000	101	80	120
Beryllium	07/26/2023 12:02	500000	479000	96	80	120
Cadmium	07/26/2023 12:02	500000	469000	94	80	120
Calcium	07/26/2023 12:02	500000000	433000000	87	80	120
Chromium	07/26/2023 12:02	500000	458000	92	80	120
Cobalt	07/26/2023 12:02	500000	467000	93	80	120
Copper	07/26/2023 12:02	500000	588000	118	80	120
Iron	07/26/2023 12:02	500000000	421000000	84	80	120
Lead	07/26/2023 12:02	500000	403000	81	80	120
Magnesium	07/26/2023 12:02	500000000	466000000	93	80	120
Manganese	07/26/2023 12:02	500000	500000	100	80	120
Nickel	07/26/2023 12:02	500000	459000	92	80	120
Selenium	07/26/2023 12:02	500000	481000	96	80	120
Silver	07/26/2023 12:02	500000	546000	109	80	120
Thallium	07/26/2023 12:02	500000	444000	89	80	120
Total Potassium	07/26/2023 12:02	100000	104000	104	80	120
Total Sodium	07/26/2023 12:02	100000	96100	96	80	120
Vanadium	07/26/2023 12:02	500000	485000	97	80	120
Zinc	07/26/2023 12:02	500000	424000	85	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1349322	Parent Sample No.:	1348149
Analytical Prep Batch #:	130560	Analytical Preparation Date/Time:	07/18/2023 12:12
Analytical Run #:	273760	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 07/19/2023 Analysis Time: -------- 14:01

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	5890		3340		800	319		P	*FAIL*
Total Antimony	88-113	202		BDL	U	200	101		P	
Total Arsenic	87-113	815		BDL	U	800	102		P	
Total Barium	88-113	931		141		800	99		P	
Total Beryllium	89-112	20.3		BDL	U	20.0	102		P	
Total Cadmium	88-113	18.3		BDL	U	20.0	92		P	
Total Calcium	87-113	286000		95200		200000	95		P	
Total Chromium	90-113	89.2		9.3		80.0	100		P	
Total Cobalt	89-114	192		3.9	J	200	94		P	
Total Copper	86-114	104		11.4	J	100	93		P	
Total Iron	87-115	7030		6570		400	115		P	
Total Lead	86-113	180		5.7	J	200	87		P	
Total Magnesium	85-113	140000		46600		100000	93		P	
Total Manganese	90-114	710		573		200	68		P	*FAIL*
Total Nickel	88-113	197		7.2		200	95		P	
Total Potassium	86-114	97800		2980		100000	95		P	
Total Selenium	83-114	769		BDL	U	800	96		P	
Total Silver	84-115	19.0		BDL	U	20.0	95		P	
Total Sodium	87-115	116000		26200		100000	90		P	
Total Thallium	85-114	608		BDL	U	800	76		P	*FAIL*
Total Vanadium	90-111	199		7.1		200	96		P	
Total Zinc	87-115	209		31.5		200	89		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1351988	Parent Sample No.:	1348149
Analytical Prep Batch #:		Analytical Preparation Date/Time:	
Analytical Run #:	273760	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 07/19/2023 Analysis Time: -------- 14:15

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Aluminum	80-120	7510		3340		4000	104		P	
Calcium	80-120	515000		95200		400000	105		P	
Iron	80-120	8360		6570		2000	90		P	
Lead	80-120	548		5.7	J	1000	54		P	*FAIL*
Manganese	80-120	1320		573		1000	75		P	*FAIL*
Thallium	80-120	2290		BDL	U	4000	57		P	*FAIL*
Vanadium	80-120	623		7.1		1000	62		P	*FAIL*
Zinc	80-120	589		31.5		1000	56		P	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	ug/L
Sample No.:	1349323	Parent Sample No.:	1349322
Analytical Prep Batch #:	130560	Analytical Preparation Date/Time:	07/18/2023 12:12
Analytical Run #:	273760	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: -------- 07/26/2023 Analysis Time: -------- 17:38

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	6040		3340		800	338		P	*FAIL*
Total Antimony	88-113	201		BDL	U	200	100		P	
Total Arsenic	87-113	738		BDL	U	800	92		P	
Total Barium	88-113	906		141		800	96		P	
Total Beryllium	89-112	19.1		BDL	U	20.0	96		P	
Total Cadmium	88-113	18.0		BDL	U	20.0	90		P	
Total Calcium	87-113	267000		95200		200000	86		P	*FAIL*
Total Chromium	90-113	86.1		9.3		80.0	96		P	
Total Cobalt	89-114	188		3.9	J	200	92		P	
Total Copper	86-114	98.8		11.4	J	100	87		P	
Total Iron	87-115	6810		6570		400	60		P	*FAIL*
Total Lead	86-113	176		5.7	J	200	85		P	*FAIL*
Total Magnesium	85-113	136000		46600		100000	89		P	
Total Manganese	90-114	698		573		200	62		P	*FAIL*
Total Nickel	88-113	193		7.2		200	93		P	
Total Potassium	86-114	100000		2980		100000	97		P	
Total Selenium	83-114	761		BDL	U	800	95		P	
Total Silver	84-115	19.4		BDL	U	20.0	97		P	
Total Sodium	87-115	120000		26200		100000	94		P	
Total Thallium	85-114	699		BDL	U	800	87		P	
Total Vanadium	90-111	165		7.1		200	79		P	*FAIL*
Total Zinc	87-115	194		31.5		200	81		P	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 130560
Analytical Preparation Date/Time: 07/18/2023 12:12
Analytical Run #: 273760
ICAL Calibration #:
Sample #: 1349321
Parent Sample #: 1348149

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Aluminum	07/19/2023	13:53	20	3340		3390		1		P
Total Antimony	07/19/2023	13:53	20	4.4	U	4.4	U	0		P
Total Arsenic	07/19/2023	13:53	20	7.7	U	7.7	U	0		P
Total Barium	07/19/2023	13:53	20	141		137		3		P
Total Beryllium	07/19/2023	13:53	20	0.75	U	0.75	U	0		P
Total Cadmium	07/19/2023	13:53	20	0.41	U	0.41	U	0		P
Total Calcium	07/19/2023	13:53	20	95200		93600		2		P
Total Chromium	07/19/2023	13:53	20	9.3		9.2		1		P
Total Cobalt	07/19/2023	13:53	20	3.9	J	4.0	J	3		P
Total Copper	07/19/2023	13:53	20	11.4	J	11.7	J	3		P
Total Iron	07/19/2023	13:53	20	6570		6650		1		P
Total Lead	07/19/2023	13:53	20	5.7	J	6.6	J	15		P
Total Magnesium	07/19/2023	13:53	20	46600		45900		2		P
Total Manganese	07/19/2023	13:53	20	573		514		11		P
Total Nickel	07/19/2023	13:53	20	7.2		7.2		0		P
Total Potassium	07/19/2023	13:53	20	2980		2980		0		P
Total Selenium	07/19/2023	13:53	20	10	U	10	U	0		P
Total Silver	07/19/2023	13:53	20	1.1	U	1.1	U	0		P
Total Sodium	07/19/2023	13:53	20	26200		25900		1		P
Total Thallium	07/19/2023	13:53	20	6.8	U	6.8	U	0		P
Total Vanadium	07/19/2023	13:53	20	7.1		6.6		7		P
Total Zinc	07/19/2023	13:53	20	31.5		29.1		8		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID | SDG No.: 178914

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 130560 | Analytical Preparation Date/Time: 07/18/2023 12:12

Analytical Run #: 273760 | ICAL Calibration #:

Sample #: 1349323 | Parent Sample #: 1349322

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Aluminum	07/26/2023	17:38	20	5890		6040		3		P
Total Antimony	07/26/2023	17:38	20	202		201		0		P
Total Arsenic	07/26/2023	17:38	20	815		738		10		P
Total Barium	07/26/2023	17:38	20	931		906		3		P
Total Beryllium	07/26/2023	17:38	20	20.3		19.1		6		P
Total Cadmium	07/26/2023	17:38	20	18.3		18.0		2		P
Total Calcium	07/26/2023	17:38	20	286000		267000		7		P
Total Chromium	07/26/2023	17:38	20	89.2		86.1		4		P
Total Cobalt	07/26/2023	17:38	20	192		188		2		P
Total Copper	07/26/2023	17:38	20	104		98.8		5		P
Total Iron	07/26/2023	17:38	20	7030		6810		3		P
Total Lead	07/26/2023	17:38	20	180		176		2		P
Total Magnesium	07/26/2023	17:38	20	140000		136000		3		P
Total Manganese	07/26/2023	17:38	20	710		698		2		P
Total Nickel	07/26/2023	17:38	20	197		193		2		P
Total Potassium	07/26/2023	17:38	20	97800		100000		2		P
Total Selenium	07/26/2023	17:38	20	769		761		1		P
Total Silver	07/26/2023	17:38	20	19.0		19.4		2		P
Total Sodium	07/26/2023	17:38	20	116000		120000		3		P
Total Thallium	07/26/2023	17:38	20	608		699		14		P
Total Vanadium	07/26/2023	17:38	20	199		165		19		P
Total Zinc	07/26/2023	17:38	20	209		194		7		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: ug/L

Analytical Run #: 273833

Sample No.:#: 1346625

Analytical Prep Batch #: 130488

Preparation Date/Time: 07/18/2023 13:20

ICAL Calibration #: 07212023

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Mercury	07/21/2023 10:29	82-119	2.00		2.00	100		CV

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 178914

Concentration Units: ug/L

Analytical Run #: 273760 Sample No.:#: 1349320

Analytical Prep Batch #: 130560 Preparation Date/Time: 07/18/2023 12:12

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Aluminum	07/19/2023 13:24	86-115	774.0		800.0	97		P
Total Antimony	07/19/2023 13:24	88-113	199.0		200.0	100		P
Total Arsenic	07/19/2023 13:24	87-113	818.0		800.0	102		P
Total Barium	07/19/2023 13:24	88-113	815.0		800.0	102		P
Total Beryllium	07/19/2023 13:24	89-112	20.10		20.0	100		P
Total Cadmium	07/19/2023 13:24	88-113	18.40		20.0	92		P
Total Calcium	07/19/2023 13:24	87-113	196000		200000	98		P
Total Chromium	07/19/2023 13:24	90-113	82.70		80.0	103		P
Total Cobalt	07/19/2023 13:24	89-114	189.0		200.0	94		P
Total Copper	07/19/2023 13:24	86-114	91.90		100.0	92		P
Total Iron	07/19/2023 13:24	87-115	399.0		400.0	100		P
Total Lead	07/19/2023 13:24	86-113	177.0		200.0	88		P
Total Magnesium	07/19/2023 13:24	85-113	94600		100000	95		P
Total Manganese	07/19/2023 13:24	90-114	195.0		200.0	98		P
Total Nickel	07/19/2023 13:24	88-113	194.0		200.0	97		P
Total Potassium	07/19/2023 13:24	86-114	93.40		100.0	93		P
Total Selenium	07/19/2023 13:24	83-114	780.0		800.0	98		P
Total Silver	07/19/2023 13:24	84-115	19.70		20.0	98		P
Total Sodium	07/19/2023 13:24	87-115	89.30		100.0	89		P
Total Thallium	07/19/2023 13:24	85-114	757.0		800.0	95		P
Total Vanadium	07/19/2023 13:24	90-111	194.0		200.0	97		P
Total Zinc	07/19/2023 13:24	87-115	188.0		200.0	94		P

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description: **49IDW**

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID SDG No.: 178914

Concentration Units: ug/L

Sample No.: 1351985 Parent Sample No.: 1348149

LIMS Run #: 273760 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Aluminum	07/19/2023	13:46	3340		3880		16		P	*FAIL*
Calcium	07/19/2023	13:46	95200		106000		11		P	*FAIL*
Iron	07/19/2023	13:46	6570		7400		13		P	*FAIL*
Lead	07/19/2023	13:46	5.69	U	9.25	J	63		P	*INVALID*
Manganese	07/19/2023	13:46	573		640		12		P	*FAIL*
Thallium	07/19/2023	13:46	BDL	U	34	U	0		P	*INVALID*
Vanadium	07/19/2023	13:46	7.11	J	8.8	J	24		P	*INVALID*
Zinc	07/19/2023	13:46	31.5	J	51	J	62		P	*INVALID*

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Fe	0.000006	0.000000	No
			Ce	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000906	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001713	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000113	0.000000	No
Ba 233.527 {445}	☒	3	Fe	-0.000038	0.000000	No
			V	0.000180	0.000000	No
			Al	0.000000	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000029	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000016	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	2	Fe	0.000090	0.000000	No
			Al	0.000000	0.000000	No
Cd 228.802 {147}	☒	None				
Co 228.616 {447}	☒	5	Fe	0.000009	0.000000	No
			Ti	0.003000	0.000000	No
			Ba	-0.001300	0.000000	No
			Ni	0.000040	0.000000	No
			Al	0.000001	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000188	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000014	0.000000	No
Cu 224.700 {450}	☒	5	Fe	0.000274	0.000000	No
			Mo	0.001320	0.000000	No
			Ni	-0.006000	0.000000	No
			Pb	0.003030	0.000000	No
			Al	0.000000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000136	0.000000	No
Cu 327.396 {103}	☒	1	Fe	0.000069	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000086	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Mg	0.001339	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000011	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000020	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000036	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	3	Fe	0.000012	0.000000	No
			Co	0.000000	0.000000	No
			Mo	0.000000	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001241	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	3	Si	0.000000	0.000000	No
			Al	0.000001	0.000000	No
			Fe	0.000018	0.000000	No
Pb 220.353 {153}	☒	1	Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	1	Fe	0.000009	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000069	0.000000	No
			V	0.002070	0.000000	No
			Pb	-0.001040	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000360	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001308	0.000000	No
Tl 190.856 {476}	☒	5	Fe	0.000024	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000050	0.000000	No
			Cr	0.000251	0.000000	No
			V	-0.003800	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000048	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000073	0.000000	No
V 292.402 {115}	☒	3	Fe	0.000020	0.000000	No
			Cr	-0.000400	0.000000	No
			Al	0.000000	0.000000	No
Zn 202.548 {466}	☒	1	Fe	-0.000239	0.000000	No
Zn 206.200 {463}	☒	1	Fe	-0.000003	0.000000	No
Zn 213.856 {457}	☒	2	Fe	0.000167	0.000000	No
			Cu	0.007413	0.000000	No
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	2	Fe	-0.000105	0.000000	No
			Mo	0.005400	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000036	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000052	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000014	0.000000	No
Sr 421.552 { 80}	☒	1	Fe	0.000014	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
B 249.678 {135}	☒	2	Fe	0.000001	0.000000	No
			Co	0.003970	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000357	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000216	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
S 182.034 {485}	☒	1	Mg	0.000100	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

ICP ID Number: TA SDG No.: 178914

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

CT LABORATORIES
delivering more than data from your environmental analyses

13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 7470A

SDG No.: 178914

Preparation Batch #: 130488

Preparation Date/Time: 07/18/2023 / 13:20

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1346384	Normal Sample	54IDW	GROUND WATER	
1346624	Method Blank		LIQUID	
1346625	Lab Control Spike		LIQUID	
1346626	Lab Duplicate	54IDW	GROUND WATER	
1346627	Matrix Spike	54IDW	GROUND WATER	
1346628	Matrix Spike Duplicate	54IDW	GROUND WATER	
1348149	Normal Sample	49IDW	GROUND WATER	

CT LABORATORIES
delivering more than data from your environmental analyses

13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 3010A

SDG No.: 178914

Preparation Batch #: 130560

Preparation Date/Time: 07/18/2023 / 12:12

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1348149	Normal Sample	49IDW	GROUND WATER	
1349319	Method Blank		LIQUID	
1349320	Lab Control Spike		LIQUID	
1349321	Lab Duplicate	49IDW	GROUND WATER	
1349322	Matrix Spike	49IDW	GROUND WATER	
1349323	Matrix Spike Duplicate	49IDW	GROUND WATER	

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 178914

Instrument ID Number: CETAC

Method Number: CV

Start & End Date: 07/21/2023 to 07/21/2023

Analytical Run #: 273833

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1351269	ICV	1	7/21 10:20																X													
1351270	ICB	1	7/21 10:26																X													
1346625	LCSW	1	7/21 10:29																X													
1346624	MBW	1	7/21 10:48																X													
1346384	Initial	1	7/21 10:52																X													
1346626	DUP	1	7/21 10:55																X													
1348149	Initial	1	7/21 10:58																X													
1351271	CCV	1	7/21 11:01																X													
1351272	CCB	1	7/21 11:07																X													
1346627	MSW	1	7/21 11:26																X													
1346628	MSDW	1	7/21 11:30																X													
1351273	CCV	1	7/21 11:39																X													
1351274	CCB	1	7/21 11:45																X													

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 178914

Instrument ID Number: TJA

Method Number: P

Start & End Date: 07/19/2023 to 07/26/2023

Analytical Run #: 273760

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1350325	ICV	1	7/19 09:18	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1350326	ICVLL	1	7/19 09:25	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1350327	ICB	1	7/19 09:39	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1350328	ICSA	1	7/19 09:54	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1350329	ICSAB	1	7/19 10:02	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1350330	ICVLL	1	7/19 10:16																							X							
1350331	CCV1	1	7/19 13:03	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1350332	CCV2	1	7/19 13:10	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1350333	CCB	1	7/19 13:17	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1349320	LCSW	1	7/19 13:24	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1349319	MBW	1	7/19 13:31	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1348149	Initial	1	7/19 13:38	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1351983	L	5	7/19 13:46																				X										
1351984	L	5	7/19 13:46																								X						
1351985	L	5	7/19 13:46	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1349321	DUP	1	7/19 13:53	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1349322	MSW	1	7/19 14:01	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1351986	PDSW	1	7/19 14:15																				X										
1351987	PDSW	1	7/19 14:15																								X						
1351988	PDSW	1	7/19 14:15	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1350336	CCV1	1	7/19 14:29	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1350337	CCV2	1	7/19 14:36	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1350338	CCB	1	7/19 14:43	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353287	ICV	1	7/26 11:10	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353288	ICVLL	1	7/26 11:25	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1353289	ICB	1	7/26 11:32	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353290	ICSA	1	7/26 11:54	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353291	ICSAB	1	7/26 12:02	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 178914

Instrument ID Number: TJA

Method Number: P

Start & End Date: 07/19/2023 to 07/26/2023

Analytical Run #: 273760

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1353292	ICVLL	1	7/26 12:18																							X							
1353293	CCV1	1	7/26 16:40	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1353294	CCV2	1	7/26 16:47	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353295	CCB	1	7/26 16:54	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1349323	MSDW	1	7/26 17:38	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353296	CCV1	1	7/26 18:15	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1353297	CCV2	1	7/26 18:22	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X
1353298	CCB	1	7/26 18:28	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X		X	X		X			X	X

METALS
RAW DATA
DOCUMENTS

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	07/20/2023 07:49:39	07/19/2023 09:03:35	Linear	1/Conc	-0.000184	0.000053	0.000000	1.000000	0.999828	0.000001	0.540478	1.801594
Ag 338.289 {100}	07/20/2023 07:49:39	07/19/2023 09:03:35	Linear	1/Conc	0.000002	0.000004	0.000000	1.000000	0.999696	0.000000	1.436817	4.789389
Al 167.079 {501}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Var	0.000051	0.000011	0.000000	1.000000	0.999538	0.000045	0.582993	1.943310
Al 309.271 {109}	07/20/2023 07:49:39	07/19/2023 08:55:57	Linear	1/Var	0.000149	0.000002	0.000000	1.000000	0.999952	0.000113	13.673118	45.577061
Al 396.152 { 85}	07/20/2023 07:49:39	07/19/2023 08:55:57	Linear	1/Var	-0.000023	0.000006	0.000000	1.000000	0.999634	0.000251	8.582773	28.609245
As 193.759 {474}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Conc	0.000045	0.000006	0.000000	1.000000	0.999874	0.000000	3.291474	10.971579
As 197.262 {471}	07/20/2023 07:49:39	07/19/2023 08:23:58	Linear	1/Conc	-0.000039	0.000002	0.000000	1.000000	0.999957	0.000000	7.245951	24.153170
Ba 233.527 {145}	07/20/2023 07:49:39	07/19/2023 09:03:35	Linear	1/Var	0.000005	0.000001	0.000000	1.000000	0.999993	0.000004	3.616880	12.056267
Ba 233.527 {445}	07/20/2023 07:49:39	07/19/2023 08:23:58	Linear	1/Conc	0.000007	0.000040	0.000000	1.000000	0.999698	0.000004	0.408903	1.363010
Ba 455.403 { 74}	07/20/2023 07:49:39	07/19/2023 09:03:35	Linear	1/Conc	0.000372	0.000175	0.000000	1.000000	0.999949	0.000011	0.224790	0.749299
Ba 493.409 { 68}	07/20/2023 07:49:39	07/19/2023 09:03:35	Linear	None	0.028512	0.000108	0.000000	1.000000	0.999985	0.006807	1.114077	3.713590
Be 234.861 {144}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Conc	-0.000013	0.000019	0.000000	1.000000	0.999922	0.000000	0.306863	1.022876
Be 313.042 {108}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Conc	0.000029	0.000272	0.000000	1.000000	0.999990	0.000001	0.015633	0.052110
Be 313.107 {108}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Conc	0.000023	0.000065	0.000000	1.000000	0.999964	0.000000	0.337648	1.125494
Ca 184.006 {483}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Conc	-0.000338	0.000008	0.000000	1.000000	0.999881	0.000058	1.755540	5.851801
Ca 315.887 {107}	07/20/2023 07:49:39	07/19/2023 08:55:57	Linear	1/Var	0.000161	0.000002	0.000000	1.000000	0.998978	0.000367	5.858640	19.528798
Ca 317.933 {106}	07/20/2023 07:49:39	07/19/2023 08:55:57	Linear	1/Var	0.002747	0.000006	0.000000	1.000000	0.997233	0.000484	2.495714	8.319046
Ca 393.366 { 86}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Conc	0.000421	0.000545	0.000000	1.000000	0.999459	0.000326	0.059105	0.197015
Ca 396.847 { 85}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	0.000144	0.000232	0.000000	1.000000	0.999684	0.000274	0.127102	0.423673
Cd 226.502 {449}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Conc	-0.000009	0.000215	0.000000	1.000000	0.999980	0.000001	0.121480	0.404934
Cd 228.802 {448}	07/20/2023 07:49:39	07/19/2023 08:16:16	Linear	1/Var	0.000008	0.000031	0.000000	1.000000	0.999998	0.000004	0.465651	1.552170
Co 228.616 {447}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	-0.000010	0.000130	0.000000	1.000000	0.999865	0.000008	0.239652	0.798841
Co 238.892 {141}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	0.000006	0.000008	0.000000	1.000000	0.999996	0.000001	0.405945	1.353151
Cr 205.560 {464}	07/20/2023 07:49:39	07/19/2023 08:32:07	Linear	1/Var	0.000050	0.000056	0.000000	1.000000	0.999491	0.000255	0.358488	1.194959
Cr 267.716 {126}	07/20/2023 07:49:39	07/19/2023 08:16:17	Linear	1/Conc	0.000002	0.000010	0.000000	1.000000	0.999982	0.000000	0.444836	1.482788
Cu 223.008 {451}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	-0.000008	0.000026	0.000000	1.000000	0.999725	0.000008	1.174777	3.915922
Cu 324.754 {104}	07/20/2023 07:49:39	07/19/2023 08:32:08	Linear	1/Conc	0.000182	0.000010	0.000000	1.000000	0.999976	0.000010	2.337594	7.791981
Cu 327.396 {103}	07/20/2023 07:49:39	07/19/2023 08:32:08	Linear	1/Var	-0.000036	0.000006	0.000000	1.000000	0.999771	0.000039	6.453600	21.511999
Fe 234.349 {144}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Conc	0.000013	0.000002	0.000000	1.000000	0.999757	0.000017	0.789320	2.631066
Fe 239.562 {140}	07/20/2023 07:49:39	07/19/2023 08:55:58	Linear	1/Conc	0.000003	0.000002	0.000000	1.000000	0.998239	0.000223	4.025814	13.419380
Fe 259.940 {129}	07/20/2023 07:49:39	07/19/2023 08:55:58	Linear	1/Var	0.000125	0.000008	0.000000	1.000000	0.996556	0.000870	1.832884	6.109612
Mg 202.582 {466}	07/20/2023 07:49:39	07/19/2023 08:55:58	Linear	1/Conc	-0.000169	0.000005	0.000000	1.000000	0.999168	0.000334	4.047652	13.492174
Mg 279.079 {121}	07/20/2023 07:49:39	07/19/2023 08:55:58	Linear	1/Conc	0.000012	0.000000	0.000000	1.000000	0.999781	0.000008	22.928834	76.429447
Mg 280.270 {120}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	0.000074	0.000176	0.000000	1.000000	0.999570	0.000243	0.013927	0.046424
Mn 257.610 {131}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	-0.000007	0.000059	0.000000	1.000000	0.999951	0.000005	0.039534	0.131779
Mn 259.373 {130}	07/20/2023 07:49:39	07/19/2023 08:32:08	Linear	1/Conc	0.000022	0.000033	0.000000	1.000000	0.999986	0.000081	0.421656	1.405521
Mo 202.030 {466}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Var	0.000043	0.000047	0.000000	1.000000	0.999760	0.000104	0.389144	1.297148
Mo 204.598 {464}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	-0.000014	0.000023	0.000000	1.000000	0.999872	0.000003	0.810257	2.700857
Ni 221.647 {452}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	0.000009	0.000071	0.000000	1.000000	0.999832	0.000061	0.467263	1.557543
Ni 231.604 {445}	07/20/2023 07:49:39	07/19/2023 08:23:59	Linear	1/Conc	-0.000065	0.000101	0.000000	1.000000	0.999789	0.000008	0.359621	1.198738
Pb 216.999 {455}	07/20/2023 07:49:39	07/19/2023 08:32:08	Linear	1/Var	0.000072	0.000006	0.000000	1.000000	0.999341	0.000273	4.621626	15.405421
Pb 220.353 {153}	07/20/2023 07:49:39	07/19/2023 08:32:08	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999899	0.000001	3.386308	11.287692
Pb 220.353 {453}	07/20/2023 07:49:39	07/19/2023 08:16:17	Linear	1/Conc	0.000038	0.000022	0.000000	1.000000	0.999443	0.000002	1.577676	5.258920
Sb 206.833 {463}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Var	0.000020	0.000007	0.000000	1.000000	0.999826	0.000093	2.589975	8.633249

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {145}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0

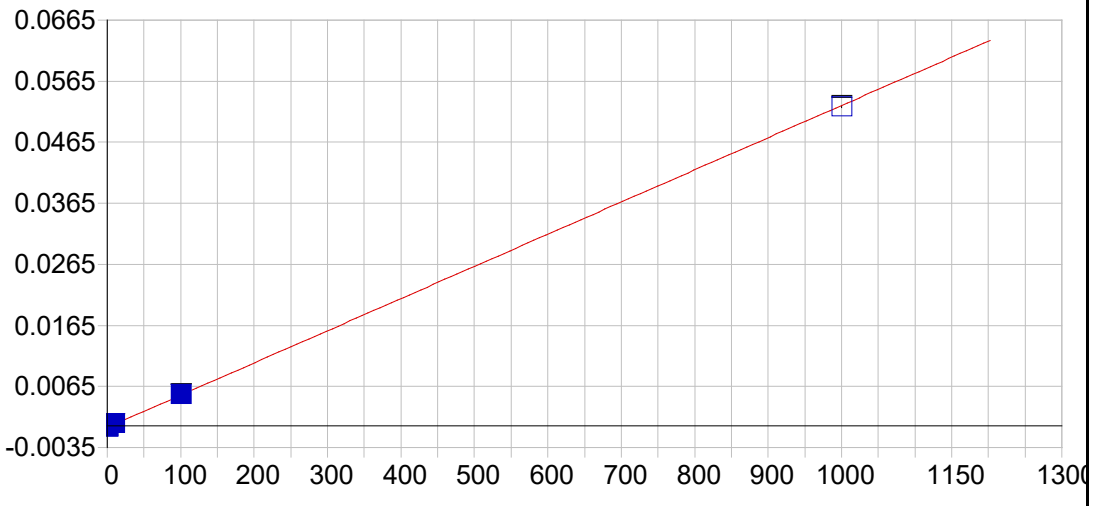
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Sb 217.581 {455}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000032	0.000006	0.000000	1.000000	0.999667	0.000001	3.758732	12.529106
	Se 196.090 {472}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	-0.000015	0.000004	0.000000	1.000000	0.999819	0.000001	4.635172	15.450573
	Se 206.279 {463}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000016	0.000001	0.000000	1.000000	0.999840	0.000001	21.499752	71.665842
	Tl 190.856 {476}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	-0.000007	0.000010	0.000000	1.000000	0.999511	0.000004	1.919542	6.398473
	Tl 190.856 {477}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	-0.000018	0.000003	0.000000	1.000000	0.999409	0.000002	4.007124	13.357079
	V 290.882 {116}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000057	0.000004	0.000000	1.000000	0.999940	0.000002	4.855216	16.184052
	V 292.402 {115}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000021	0.000020	0.000000	1.000000	0.999961	0.000002	0.404753	1.349176
	Zn 206.200 {463}	07/20/2023 07:49:39	07/19/2023 08:32:08	Curvili	1/Var	0.000118	0.000104	-0.000000	1.000000	0.999818	0.000218	0.202209	0.674030
	Zn 213.856 {457}	07/20/2023 07:49:39	07/19/2023 08:16:18	Linear	1/Conc	-0.778830	8.122845	0.000000	1.000000	0.999973	0.280049	0.140420	0.468067
	Y 224.306 {450}*	07/20/2023 07:49:39	07/19/2023 07:18:51	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	07/20/2023 07:49:39	07/19/2023 07:18:51	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	07/20/2023 07:49:39	07/19/2023 07:18:51	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	07/20/2023 07:49:39	07/19/2023 08:55:58	Curvili	1/Var	0.000041	0.000028	-0.000000	1.000000	0.999953	0.000109	1.017145	3.390485
	Na 588.995 { 57}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Var	2682.8552	1907.0127	0.000000	1.000000	0.999828	155.92014	0.007347	0.024488
	Na 589.592 { 57}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Var	4.195406	1157.1560	0.000000	1.000000	0.999984	27.010922	0.007549	0.025163
	Si 212.412 {458}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Conc	0.000109	0.000018	0.000000	1.000000	0.999318	0.000314	1.378404	4.594681
	Si 251.611 {134}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Var	0.000039	0.000002	0.000000	1.000000	0.999586	0.000140	5.517826	18.392754
	Ti 323.452 {104}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000883	0.000036	0.000000	1.000000	0.999808	0.000006	0.895783	2.985944
	Ti 334.941 {101}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000029	0.000011	0.000000	1.000000	0.999835	0.000002	1.596988	5.323292
	Sr 407.771 { 83}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	0.000213	0.000398	0.000000	1.000000	0.999891	0.000023	0.110080	0.366934
	Sr 421.552 { 80}	07/20/2023 07:49:39	07/19/2023 08:24:00	Linear	1/Conc	-0.000503	0.000251	0.000000	1.000000	0.999889	0.000015	0.183953	0.613175
	Sn 189.989 {477}	07/20/2023 07:49:39	07/19/2023 08:24:01	Linear	1/Conc	0.000011	0.000023	0.000000	1.000000	0.999776	0.000007	0.687465	2.291551
	Sn 189.989 {478}	07/20/2023 07:49:39	07/19/2023 08:24:01	Linear	1/Conc	-0.000008	0.000004	0.000000	1.000000	0.999773	0.000001	2.556529	8.521762
	B 249.678 {135}	07/20/2023 07:49:39	07/19/2023 08:24:01	Linear	1/Conc	0.000047	0.000006	0.000000	1.000000	0.999964	0.000001	0.877224	2.924079
	B 249.773 {135}	07/20/2023 07:49:39	07/19/2023 08:24:01	Linear	1/Conc	0.000025	0.000009	0.000000	1.000000	0.999920	0.000002	0.378116	1.260387
	Li 610.353 { 55}	07/20/2023 07:49:39	07/19/2023 08:24:01	Linear	1/Var	0.000590	0.000007	0.000000	1.000000	0.999740	0.000614	18.724895	62.416318
	Li 670.776 { 50}	07/20/2023 07:49:39	07/19/2023 08:24:01	Curvili	1/Conc	-0.000354	0.000056	-0.000000	1.000000	0.999992	0.000004	1.687579	5.625263
	K 766.490 { 44}	07/20/2023 07:49:39	07/19/2023 08:39:26	Linear	1/Conc	66.703592	226.18154	0.000000	1.000000	0.999942	1.149390	0.033733	0.112443
	K 769.896 { 44}	07/20/2023 07:49:39	07/19/2023 08:55:58	Linear	1/Var	60.280538	142.12382	0.000000	1.000000	0.999228	59.605657	0.050094	0.166979
	P 177.495 {489}	07/20/2023 07:49:39	07/19/2023 08:24:01	Linear	1/Conc	-0.000009	0.000002	0.000000	1.000000	1.000000	0.000000	3.713054	12.376847
	S 182.034 {485}	07/20/2023 07:49:39	07/19/2023 08:55:58	Curvili	1/Conc	0.000027	0.000002	0.000000	1.000000	0.999996	0.000009	5.399037	17.996791
	Hg 184.950 {482}	07/20/2023 07:49:39	07/19/2023 08:16:19	Linear	1/Conc	-0.000041	0.000020	0.000000	1.000000	0.999786	0.000001	0.650356	2.167852
	Hg 194.227 {473}	07/20/2023 07:49:39	07/19/2023 08:16:19	Linear	1/Conc	0.000011	0.000018	0.000000	1.000000	0.999569	0.000001	0.869789	2.899296
	Ce 404.076 { 83}	07/20/2023 07:49:39	07/19/2023 08:16:19	Linear	1/Conc	0.000192	0.000002	0.000000	1.000000	1.000000	0.000000	19.907303	66.357677

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Hg 194.227 {473}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Ce	-0.005974	0.000000	No
			Ti	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000095	0.000000	No
Al 167.079 {501}	☒	1	Fe	0.000000	0.000000	No
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.000971	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000116	0.000000	No
Ba 233.527 {145}	☒	1	Fe	-0.000003	0.000000	No
Ba 233.527 {445}	☒	2	Fe	-0.000028	0.000000	No
			Cu	0.000181	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	S	0.000000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000002	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000018	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000075	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	4	Fe	0.000003	0.000000	No
			Ba	0.000092	0.000000	No
			Ti	0.002165	0.000000	No
			Ni	0.003013	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000001	0.000000	No
Cu 223.008 {451}	☒	3	Fe	-0.000013	0.000000	No
			Tl	0.000000	0.000000	No
			Mo	0.009000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000227	0.000000	No
Cu 327.396 {103}	☒	1	Fe	-0.000007	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Mg	0.000003	0.000000	No
Mn 259.373 {130}	☒	1	Mg	0.001068	0.000000	No
Mo 202.030 {466}	☒	1	Fe	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mo 204.598 {464}	☒	1	Fe	0.000028	0.000000	No
Ni 221.647 {452}	☒	1	Ca	-0.000003	0.000000	No
Ni 231.604 {445}	☒	4	Fe	-0.000017	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.007139	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {153}	☒	1	Fe	-0.000210	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	2	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000133	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	0.000009	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000027	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000239	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	5	Fe	-0.000005	0.000000	No
			Cr	-0.000051	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.001538	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000015	0.000000	No
Zn 213.856 {457}	☒	1	Fe	0.000080	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	2	Sr	0.000000	0.000000	No
			Fe	-0.000006	0.000000	No
Na 588.995 { 57}	☒	1	Fe	-0.000001	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000000	0.000000	No
Si 212.412 {458}	☒	1	Fe	0.000004	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000053	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000003	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000040	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000018	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
Sn 189.989 {478}	☒	1	Fe	-0.000008	0.000000	No
B 249.678 {135}	☒	1	Fe	-0.000015	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000809	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Li 610.353 { 55}	☒	1	Fe	0.000227	0.000000	No
	Li 670.776 { 50}	☒	1	Fe	0.000020	0.000000	No
	K 766.490 { 44}	☒	1	Fe	0.000001	0.000000	No
	K 769.896 { 44}	☒	1	Fe	0.000000	0.000000	No
	P 177.495 {489}	☒	1	Fe	0.000209	0.000000	No
	S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
				Fe	0.000031	0.000000	No
	Hg 184.950 {482}	☒	1	Fe	-0.000010	0.000000	No
	Hg 194.227 {473}	☒	1	Fe	0.000007	0.000000	No
	Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

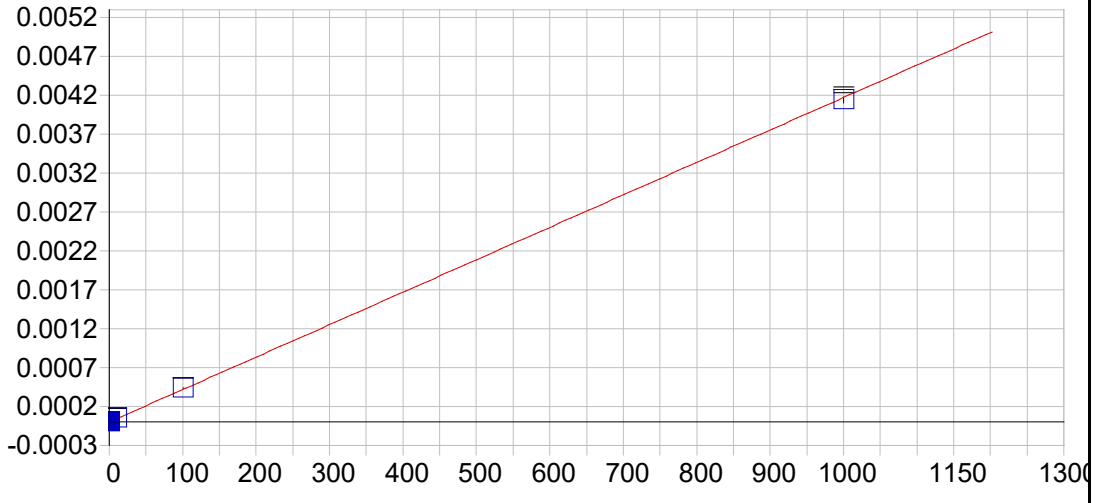


Ag 328.068 {103}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000184	Re-Slope:	1.000000
A1 (Gain):	0.000053	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999828	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.540478		
Predicted MQL:	1.801594		

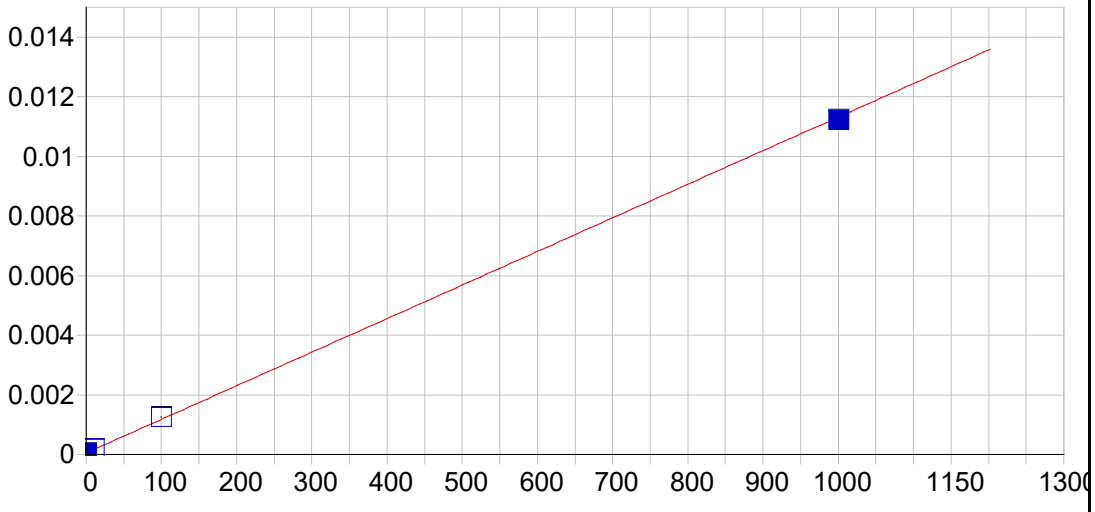
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00003	-.000	.000	-.00018	.000	1
CalStd8=100	100.00	102.08	2.08	2.08	.00519	.000	1
CalStd3=1	1.0000	.83589	-.164	-16.4	-.00014	.000	1
CalStd5=10	10.000	11.729	1.73	17.3	.00043	.000	1
Ag 1000 Ba	1000.0	996.36	-3.64	-.364	.05232	.000	1



Ag 338.289 {100}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999696		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.436817				
Predicted MQL:	4.789389				

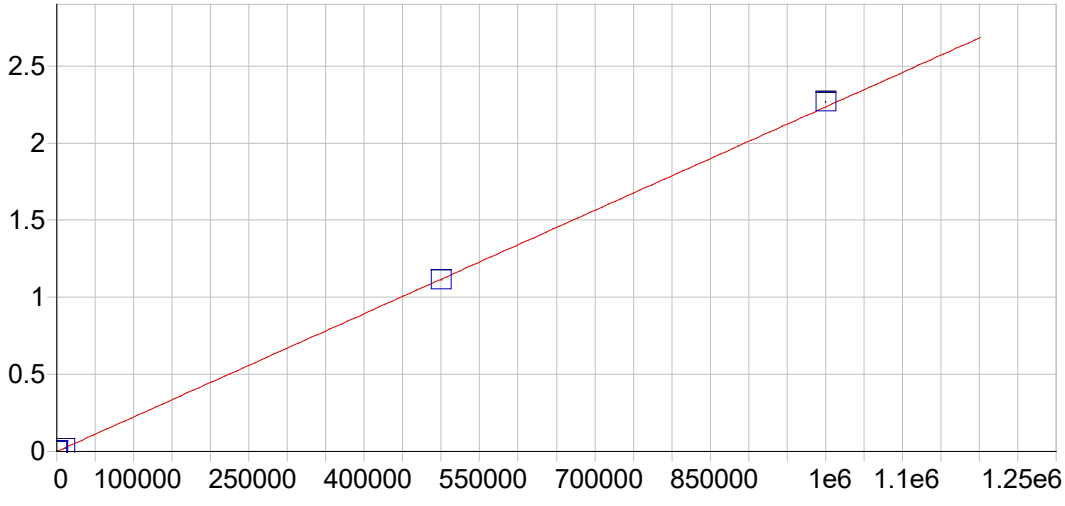
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00238	-.002	.000	.00000	.000	1
Ag 1000 Ba	1000.0	993.08	-6.92	-.692	.00414	.000	1
CalStd5=10	10.000	11.948	1.95	19.5	.00005	.000	1
CalStd8=100	100.00	104.97	4.97	4.97	.00044	.000	1



Al 167.079 {501}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000051		Re-Slope:	1.000000	
A1 (Gain):	0.000011		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999538		Status:	OK.	
Std Error of Est:	0.000045				
Predicted MDL:	0.582993				
Predicted MQL:	1.943310				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5810	-1.58	.000	.00003	.000	1
CalStd9=100	1000.0	989.95	-10.0	-1.00	.01120	.000	1
CalStd5=10	10.000	12.285	2.29	22.9	.00019	.000	1
CalStd8=100	100.00	106.01	6.01	6.01	.00125	.000	1

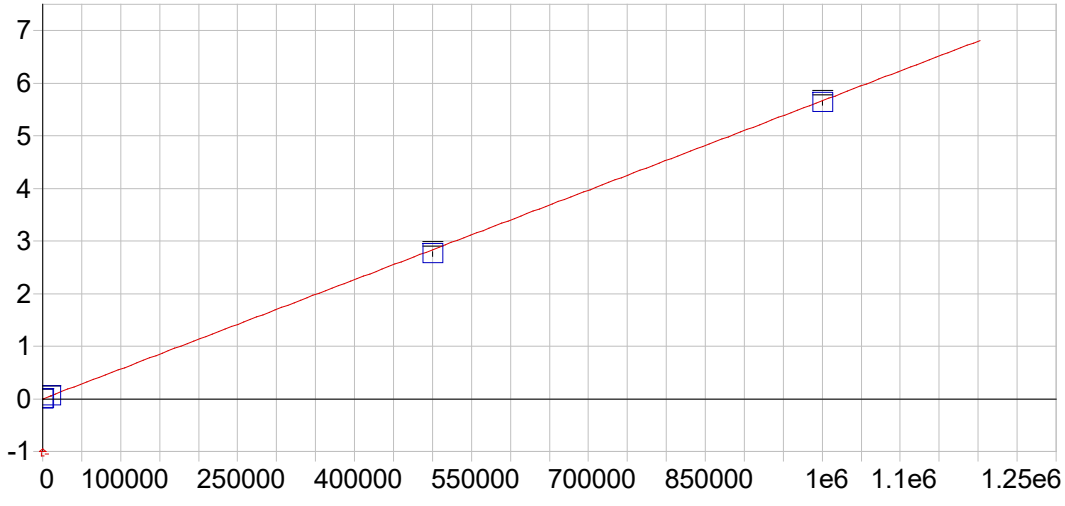


Al 309.271 {109}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000149	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000113		
Predicted MDL:	13.673118		
Predicted MQL:	45.577061		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-14.425	-14.4	.000	.00012	.000	1
CalStd9=100	1000.0	1020.9	20.9	2.09	.00243	.000	1
CalStd5=10	10.000	4.7231	-5.28	-52.8	.00016	.000	1
CalStd8=100	100.00	102.44	2.44	2.44	.00038	.000	1
CalStd10=10	10000.	9757.1	-243.	-2.43	.02195	.000	1
CalStd14=50	500000.	497820.	-2180.	-.437	1.1123	.001	1
CalibStd15=	1000000.	1014700.	14700.	1.47	2.2671	.004	1

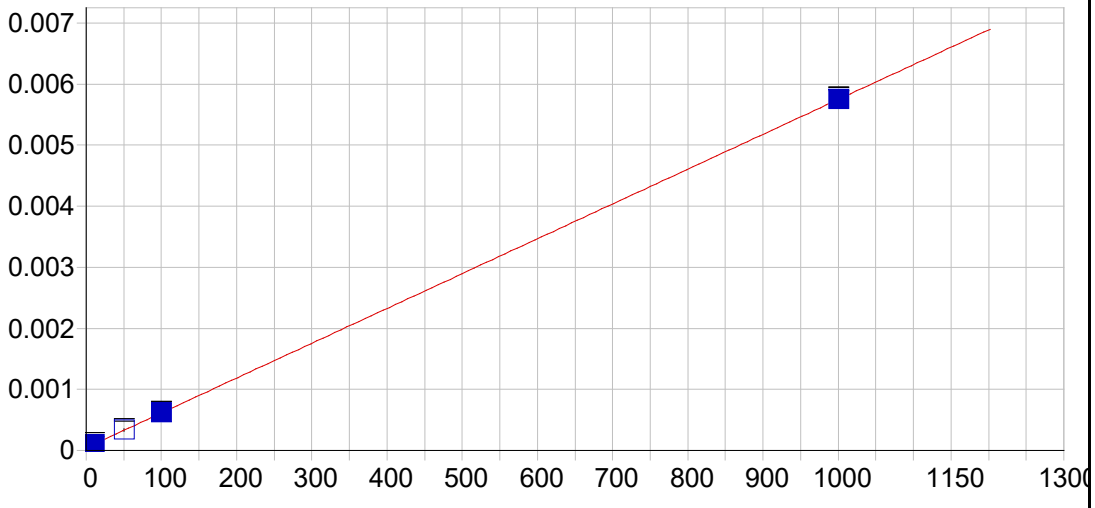


Al 396.152 { 85}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000023	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999634	Status:	OK.
Std Error of Est:	0.000251		
Predicted MDL:	8.582773		
Predicted MQL:	28.609245		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-29.148	-29.1	.000	-.00019	.000	1
CalStd14=50	500000.	486210.	-13800.	-2.76	2.7551	.044	1
CalStd10=10	10000.	9891.6	-108.	-1.08	.05603	.000	1
CalStd9=100	1000.0	1033.9	33.9	3.39	.00583	.000	1
CalibStd15=	1000000.	993480.	-6520.	-.652	5.6296	.045	1

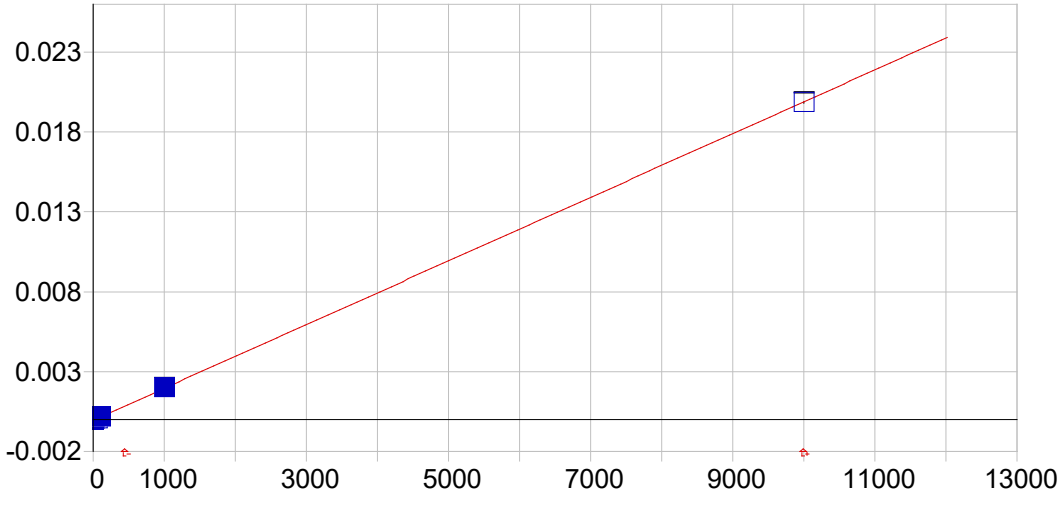


As 193.759 {474}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000045	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999874	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.291474		
Predicted MQL:	10.971579		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00145	.001	.000	.00004	.000	1
CalStd9=100	1000.0	1000.4	.392	.039	.00576	.000	1
CalStd7=50	50.000	50.825	.825	1.65	.00033	.000	1
CalStd5=10	10.000	8.3346	-1.67	-16.7	.00009	.000	1
CalStd8=100	100.00	100.45	.450	.450	.00062	.000	1

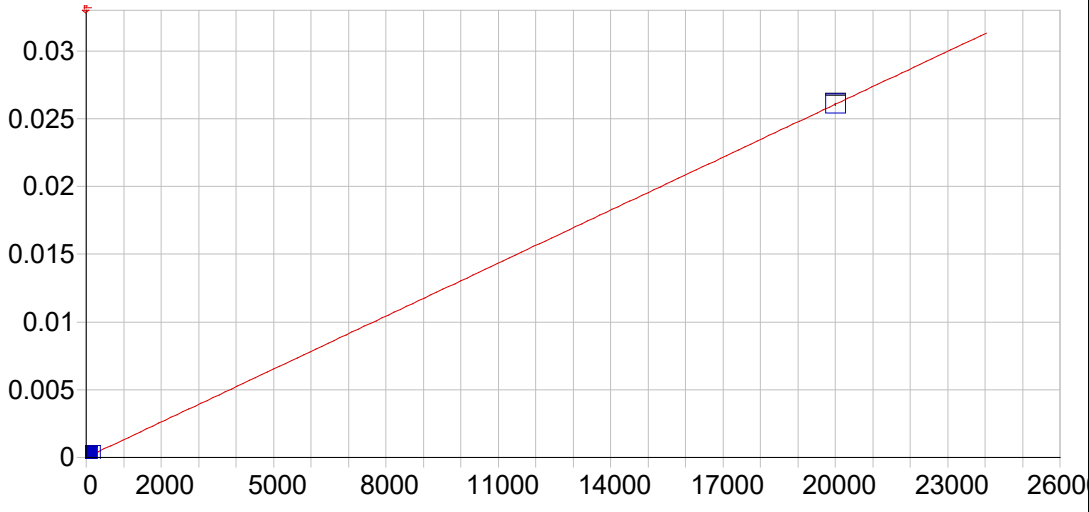


As 197.262 {471}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	7.245951		
Predicted MQL:	24.153170		

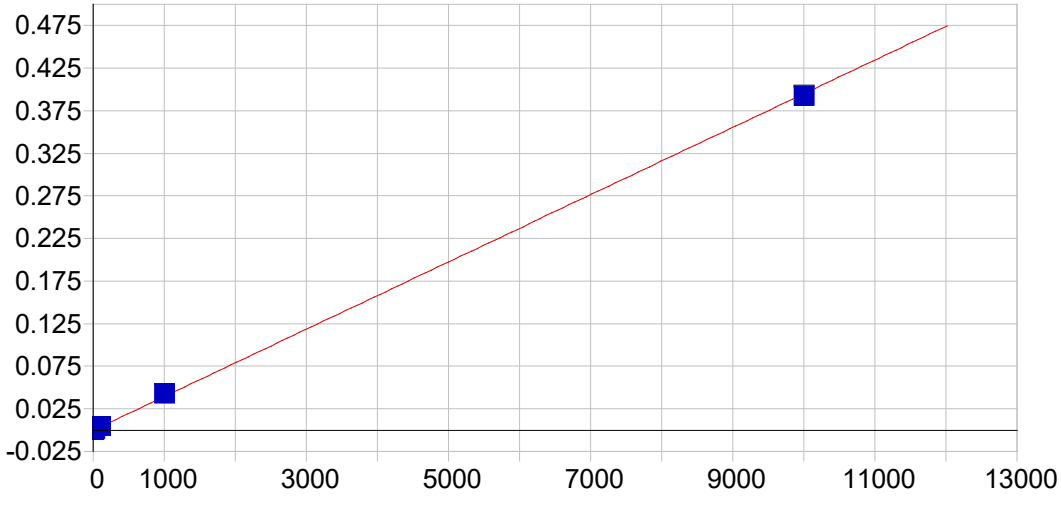
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00128	-.001	.000	-.00004	.000	1
CalStd9=100	1000.0	1021.3	21.3	2.13	.00200	.000	1
CalStd7=50	50.000	47.758	-2.24	-4.48	.00006	.000	1
CalStd5=10	10.000	11.063	1.06	10.6	-.00002	.000	1
CalStd8=100	100.00	104.80	4.80	4.80	.00017	.000	1
CalStd10=10	10000.	9975.1	-24.9	-.249	.01985	.000	1



Ba 233.527 {145}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999993		Status:	OK.	
Std Error of Est:	0.000004				
Predicted MDL:	3.616880				
Predicted MQL:	12.056267				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.9249	-1.92	.000	.00000	.000	1
CalStd5=10	10.000	13.768	3.77	37.7	.00002	.000	1
CalStd6=20	20.000	20.592	.592	2.96	.00003	.000	1
CalStd8=100	100.00	103.18	3.18	3.18	.00014	.000	1
CalStd4=5	5.0000	6.6680	1.67	33.4	.00001	.000	1
Ag 1000 Ba	20000.	19998.	-2.06	-.010	.02606	.000	1

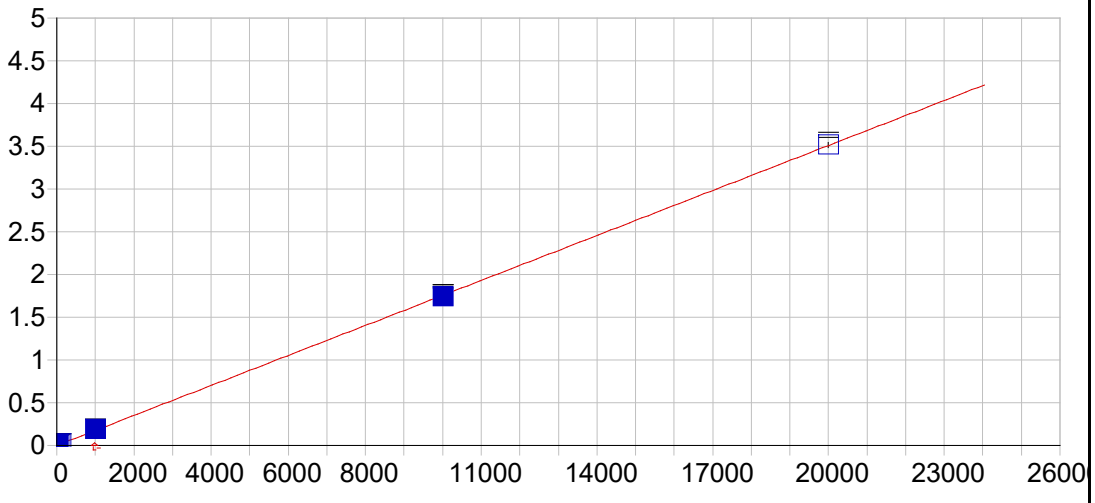


Ba 233.527 {445}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999698	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.408903		
Predicted MQL:	1.363010		

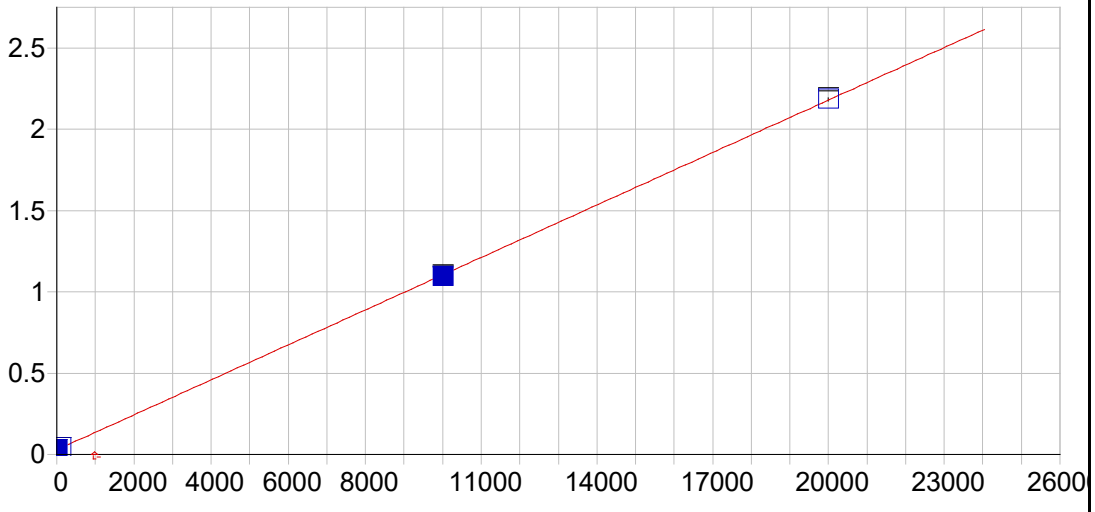
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00097	-.001	.000	.00001	.000	1
CalStd5=10	10.000	10.788	.788	7.88	.00043	.000	1
CalStd6=20	20.000	21.862	1.86	9.31	.00087	.000	1
CalStd8=100	100.00	106.92	6.92	6.92	.00423	.000	1
CalStd4=5	5.0000	5.9058	.906	18.1	.00024	.000	1
CalStd9=100	1000.0	1070.3	70.3	7.03	.04229	.000	1
CalStd3=1	1.0000	1.4885	.489	48.9	.00007	.000	1
CalStd10=10	10000.	9918.7	-81.3	-.813	.39188	.001	1



Ba 455.403 { 74}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000372		Re-Slope:	1.000000	
A1 (Gain):	0.000175		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999949		Status:	OK.	
Std Error of Est:	0.000011				
Predicted MDL:	0.224790				
Predicted MQL:	0.749299				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00064	-.001	.000	.00037	.000	1
CalStd7=50	50.000	52.405	2.41	4.81	.00957	.000	1
CalStd5=10	10.000	10.372	.372	3.72	.00219	.000	1
CalStd6=20	20.000	21.426	1.43	7.13	.00413	.000	1
CalStd8=100	100.00	104.41	4.41	4.41	.01869	.000	1
CalStd4=5	5.0000	5.5112	.511	10.2	.00134	.000	1
CalStd9=100	1000.0	1042.9	42.9	4.29	.18335	.000	1
CalStd3=1	1.0000	1.2991	.299	29.9	.00060	.000	1
CalStd10=10	10000.	9916.8	-83.2	-.832	1.7402	.018	1
Ag 1000 Ba	20000.	20031.	30.8	.154	3.5146	.033	1

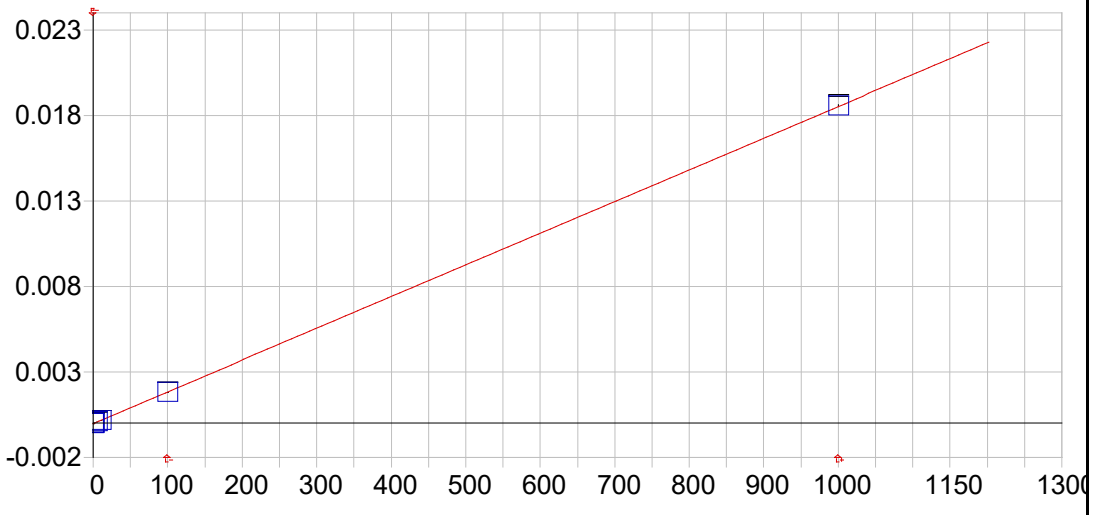


Ba 493.409 { 68}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.028512	Re-Slope:	1.000000
A1 (Gain):	0.000108	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.006807		
Predicted MDL:	1.114077		
Predicted MQL:	3.713590		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	12.655	12.7	.000	.02987	.000	1
CalStd8=100	100.00	125.45	25.5	25.5	.04201	.000	1
CalStd10=10	10000.	9924.0	-76.0	-.760	1.0959	.006	1
Ag 1000 Ba	20000.	20038.	37.9	.189	2.1836	.010	1

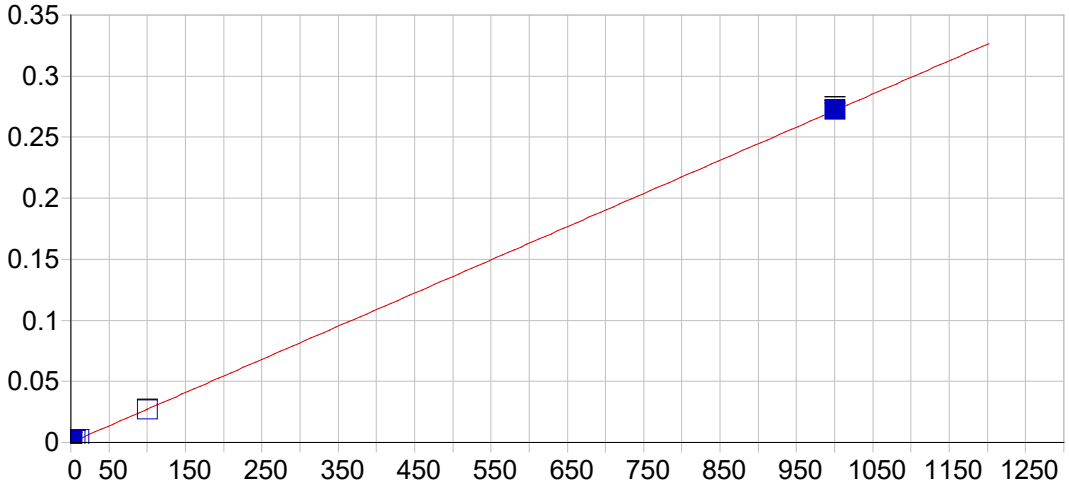


Be 234.861 {144}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000019	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.306863		
Predicted MQL:	1.022876		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00003	.000	.000	-.00001	.000	1
CalStd5=10	10.000	9.9369	-.063	-.631	.00017	.000	1
CalStd8=100	100.00	98.040	-1.96	-1.96	.00180	.000	1
CalStd2=0.5	.50000	.36194	-.138	-27.6	-.00001	.000	1
CalStd4=5	5.0000	4.7484	-.252	-5.03	.00007	.000	1
CalStd9=100	1000.0	1002.1	2.13	.213	.01857	.000	1
CalStd3=1	1.0000	1.2836	.284	28.4	.00001	.000	1

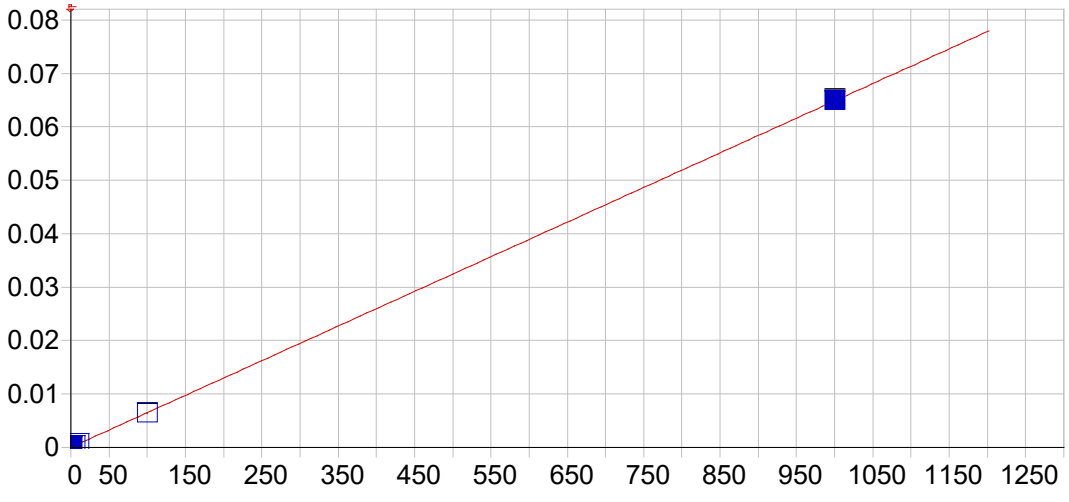


Be 313.042 {108}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000029	Re-Slope:	1.000000
A1 (Gain):	0.000272	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999990	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.015633		
Predicted MQL:	0.052110		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00003	-.000	.000	.00003	.000	1
CalStd5=10	10.000	10.209	.209	2.09	.00280	.000	1
CalStd8=100	100.00	98.797	-1.20	-1.20	.02688	.000	1
CalStd2=0.5	.50000	.50969	.010	1.94	.00017	.000	1
CalStd4=5	5.0000	5.1247	.125	2.49	.00142	.000	1
CalStd9=100	1000.0	1000.8	.850	.085	.27204	.003	1
CalStd3=1	1.0000	1.0100	.010	1.00	.00030	.000	1

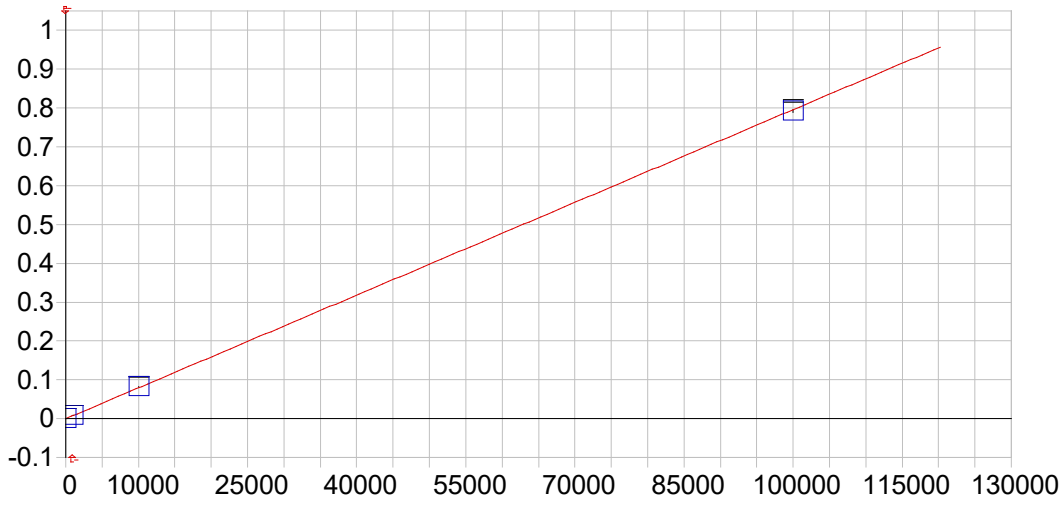


Be 313.107 {108}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000023	Re-Slope:	1.000000
A1 (Gain):	0.000065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.337648		
Predicted MQL:	1.125494		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00012	-.000	.000	.00002	.000	1
CalStd5=10	10.000	10.450	.450	4.50	.00070	.000	1
CalStd2=0.5	.50000	.62257	.123	24.5	.00006	.000	1
CalStd4=5	5.0000	5.0973	.097	1.95	.00035	.000	1
CalStd9=100	1000.0	1000.9	.941	.094	.06492	.000	1
CalStd3=1	1.0000	.94766	-.052	-5.23	.00008	.000	1
CalStd8=100	100.00	98.442	-1.56	-1.56	.00641	.000	1

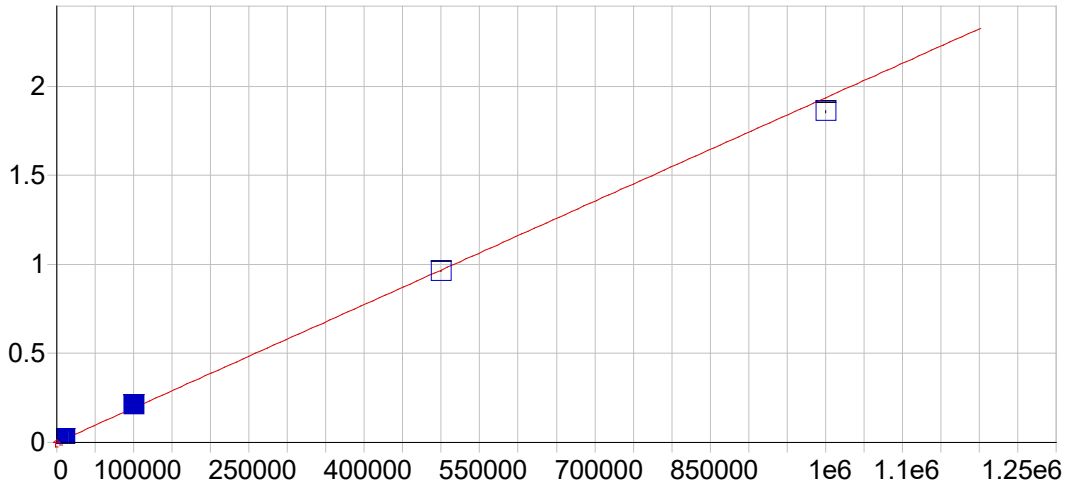


Ca 184.006 {483}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000338	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999881	Status:	OK.
Std Error of Est:	0.000058		
Predicted MDL:	1.755540		
Predicted MQL:	5.851801		

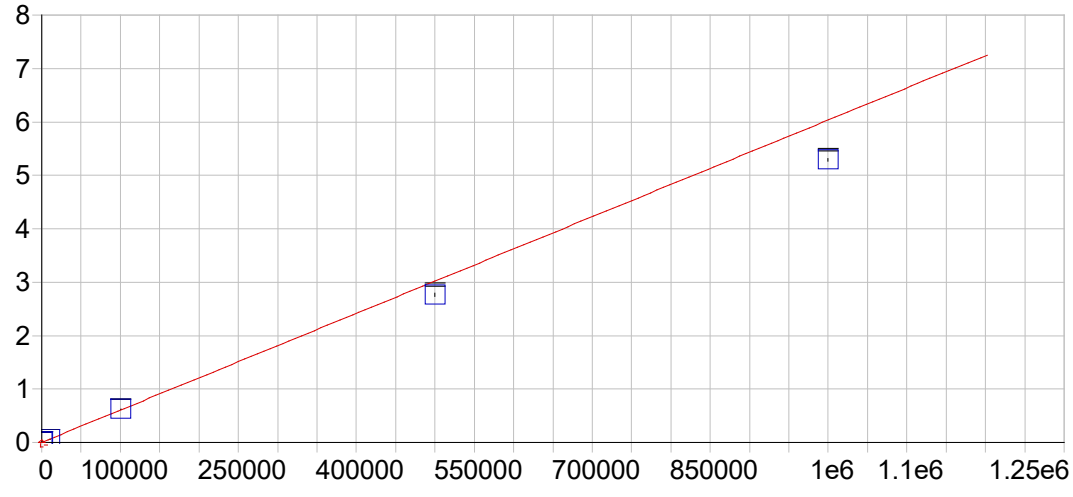
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.14778	-.148	.000	-.00034	.000	1
CalStd10=10	10000.	10316.	316.	3.16	.08179	.000	1
CalStd13=10	100000.	99563.	-437.	-.437	.79229	.004	1
CalStd9=100	1000.0	1120.5	121.	12.1	.00858	.000	1



Ca 315.887 {107}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000161		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998978		Status:	OK.	
Std Error of Est:	0.000367				
Predicted MDL:	5.858640				
Predicted MQL:	19.528798				

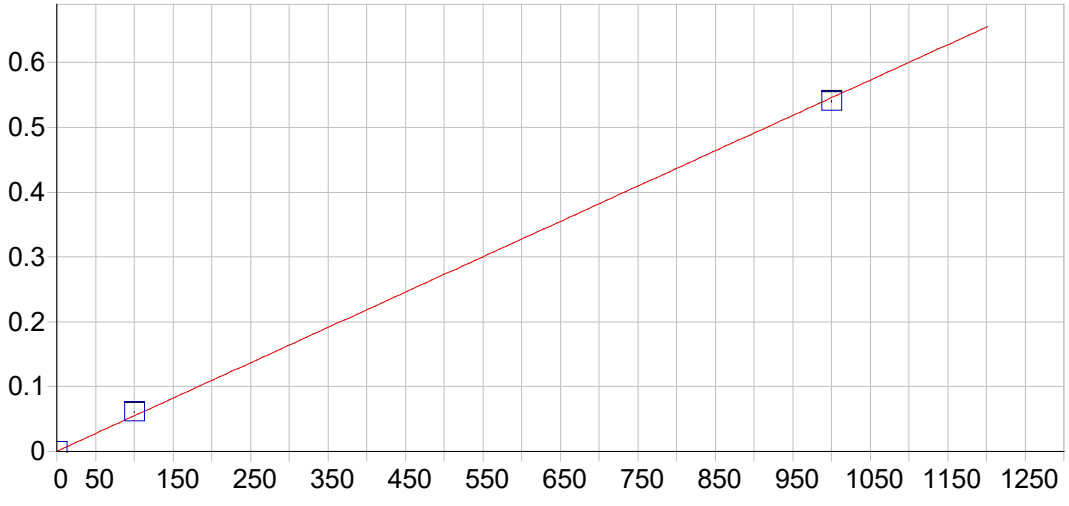
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-67.820	-67.8	.000	.00003	.000	1
CalStd10=10	10000.	10494.	494.	4.94	.02047	.000	1
CalStd13=10	100000.	108880.	8880.	8.88	.21087	.001	1
CalStd14=50	500000.	496280.	-3720.	-.744	.96058	.002	1
CalStd9=100	1000.0	1064.0	64.0	6.40	.00222	.000	1
CalibStd15=	1000000.	959640.	-40400.	-4.04	1.8573	.004	1



Ca 317.933 {106}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.002747		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.997233		Status:	OK.	
Std Error of Est:	0.000484				
Predicted MDL:	2.495714				
Predicted MQL:	8.319046				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-81.329	-81.3	.000	.00226	.000	1
CalStd10=10	10000.	9840.4	-160.	-1.60	.06211	.000	1
CalStd13=10	100000.	101970.	1970.	1.97	.61786	.002	1
CalStd14=50	500000.	457730.	-42300.	-8.45	2.7640	.030	1
CalStd9=100	1000.0	1024.4	24.4	2.44	.00893	.000	1
CalibStd15=	1000000.	875950.	-124000.	-12.4	5.2869	.027	1

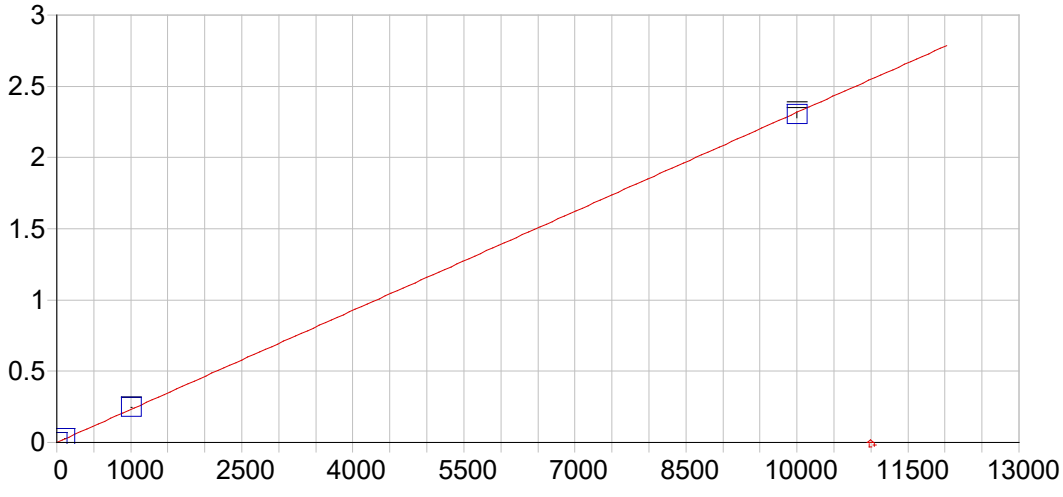


Ca 393.366 { 86}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000421	Re-Slope:	1.000000
A1 (Gain):	0.000545	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999459	Status:	OK.
Std Error of Est:	0.000326		
Predicted MDL:	0.059105		
Predicted MQL:	0.197015		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00936	-.009	.000	.00042	.000	1
CalStd9=100	1000.0	989.60	-10.4	-1.04	.54007	.001	1
CalStd8=100	100.00	110.40	10.4	10.4	.06062	.000	1

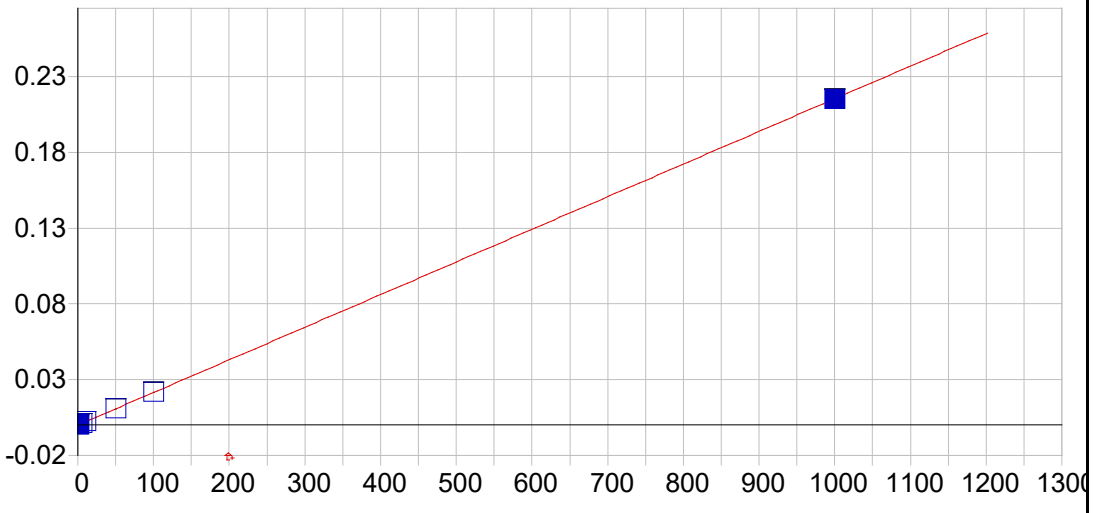


Ca 396.847 { 85}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000144	Re-Slope:	1.000000
A1 (Gain):	0.000232	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999684	Status:	OK.
Std Error of Est:	0.000274		
Predicted MDL:	0.127102		
Predicted MQL:	0.423673		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02309	-.023	.000	.00014	.000	1
CalStd10=10	10000.	9925.8	-74.2	-.742	2.2996	.021	1
CalStd8=100	100.00	118.24	18.2	18.2	.02754	.000	1
CalStd9=100	1000.0	1055.9	55.9	5.59	.24476	.000	1

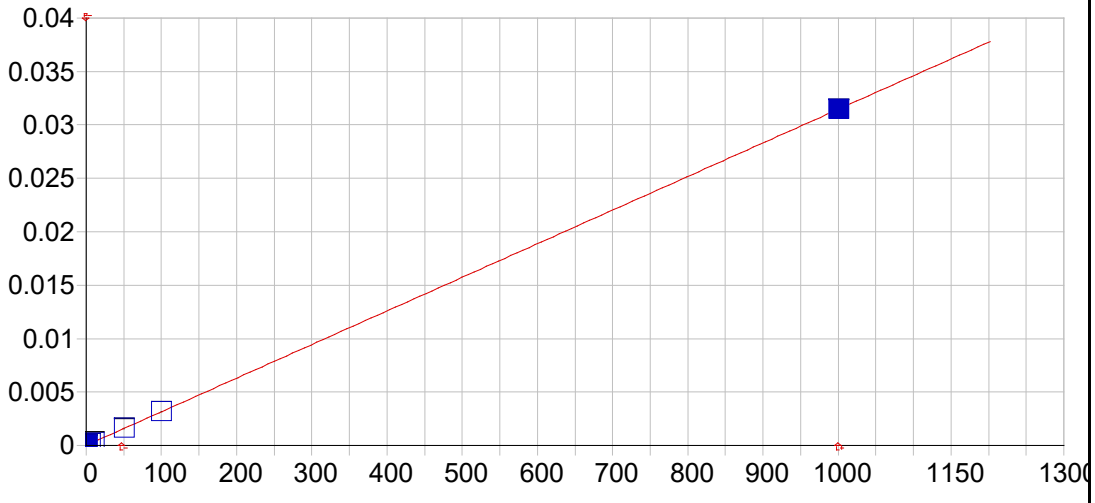


Cd 226.502 {449}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000215	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.121480		
Predicted MQL:	0.404934		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00000	-.000	.000	-.00001	.000	1
CalStd3=1	1.0000	1.0033	.003	.328	.00021	.000	1
CalStd2=0.5	.50000	.44946	-.051	-10.1	.00009	.000	1
CalStd4=5	5.0000	5.2316	.232	4.63	.00112	.000	1
CalStd5=10	10.000	10.457	.457	4.57	.00224	.000	1
CalStd9=100	1000.0	998.27	-1.73	-.173	.21494	.000	1
CalStd8=100	100.00	100.76	.761	.761	.02169	.000	1
CalStd7=50	50.000	50.332	.332	.663	.01083	.000	1

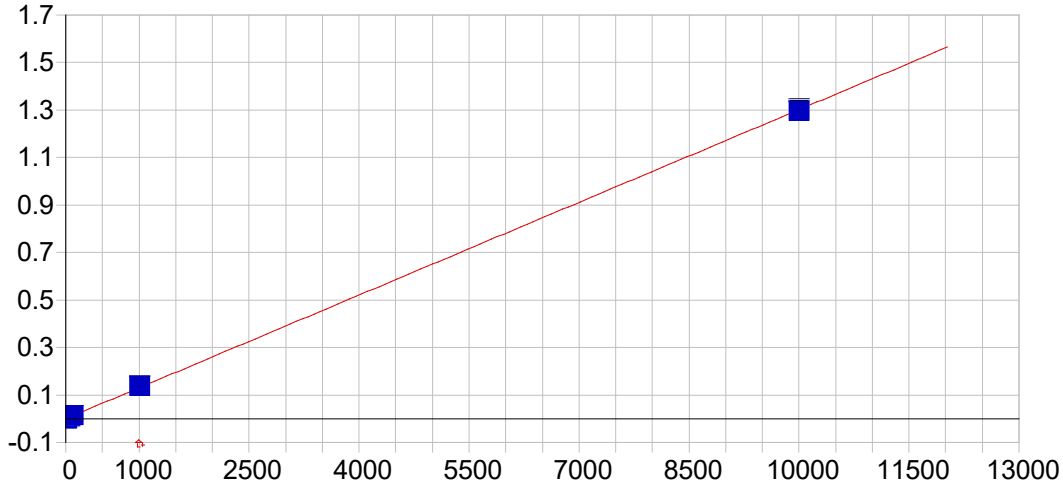


Cd 228.802 {448}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000031	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.465651		
Predicted MQL:	1.552170		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02663	-.027	.000	.00001	.000	1
CalStd3=1	1.0000	1.0252	.025	2.52	.00004	.000	1
CalStd2=0.5	.50000	.38143	-.119	-23.7	.00002	.000	1
CalStd4=5	5.0000	5.3309	.331	6.62	.00018	.000	1
CalStd5=10	10.000	10.019	.019	.187	.00032	.000	1
CalStd9=100	1000.0	999.78	-.216	-.022	.03145	.000	1
CalStd8=100	100.00	100.18	.179	.179	.00316	.000	1
CalStd7=50	50.000	50.415	.415	.830	.00159	.000	1

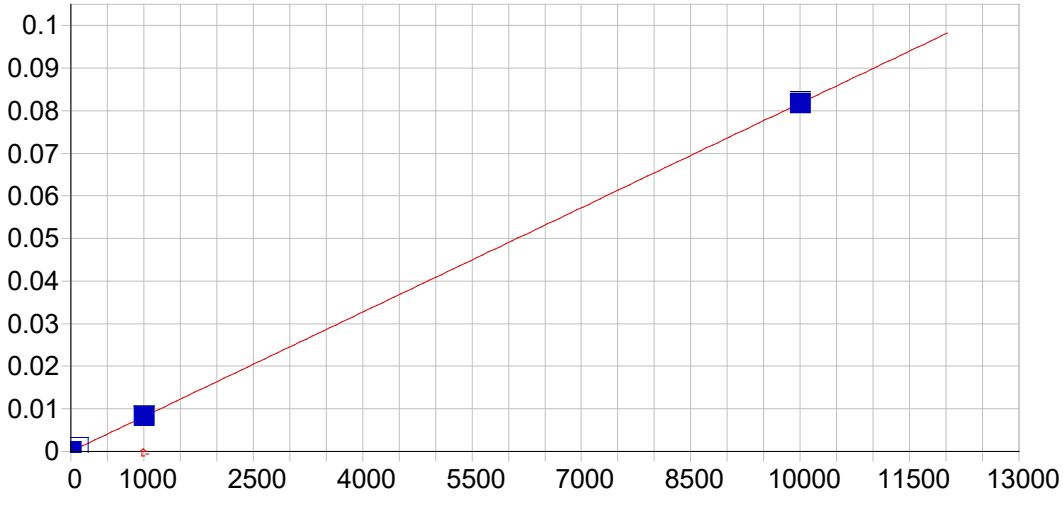


Co 228.616 {447}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000130	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.239652		
Predicted MQL:	0.798841		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00039	-.000	.000	-.00001	.000	1
CalStd7=50	50.000	53.390	3.39	6.78	.00695	.000	1
CalStd5=10	10.000	10.997	.997	9.97	.00142	.000	1
CalStd4=5	5.0000	5.6735	.673	13.5	.00073	.000	1
CalStd8=100	100.00	106.29	6.29	6.29	.01389	.000	1
CalStd9=100	1000.0	1043.9	43.9	4.39	.13654	.000	1
CalStd3=1	1.0000	.98540	-.015	-1.46	.00012	.000	1
CalStd10=10	10000.	9944.8	-55.2	-.552	1.3012	.003	1

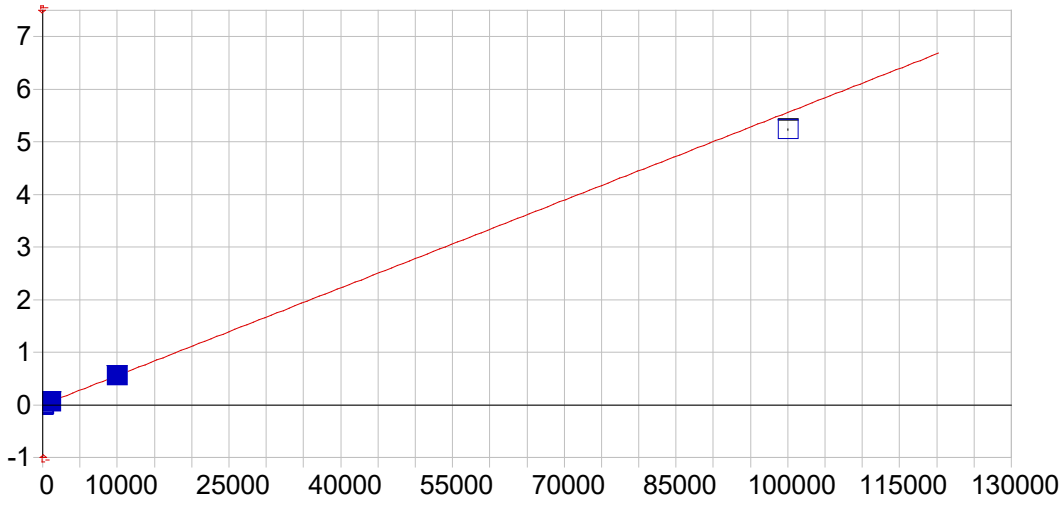


Co 238.892 {141}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.405945		
Predicted MQL:	1.353151		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00255	-.003	.000	.00001	.000	1
CalStd9=100	1000.0	1006.0	6.03	.603	.00823	.000	1
CalStd10=10	10000.	9991.9	-8.06	-.081	.08171	.000	1
CalStd8=100	100.00	102.03	2.03	2.03	.00084	.000	1

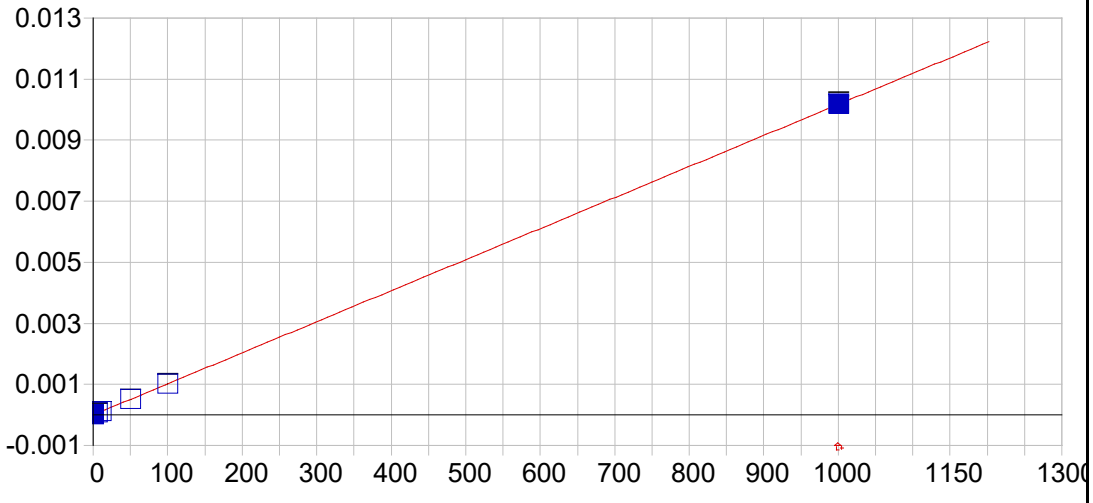


Cr 205.560 {464}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000050	Re-Slope:	1.000000
A1 (Gain):	0.000056	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999491	Status:	OK.
Std Error of Est:	0.000255		
Predicted MDL:	0.358488		
Predicted MQL:	1.194959		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.77429	-.774	.000	.00001	.000	1
CalStd5=10	10.000	9.4287	-.571	-5.71	.00057	.000	1
CalStd7=50	50.000	51.345	1.35	2.69	.00290	.000	1
CalStd9=100	1000.0	1050.5	50.5	5.05	.05845	.000	1
CalStd8=100	100.00	103.17	3.17	3.17	.00579	.000	1
CalStd4=5	5.0000	4.6386	-.361	-7.23	.00031	.000	1
CalStd3=1	1.0000	.46652	-.533	-53.3	.00008	.000	1
CalStd10=10	10000.	9913.1	-86.9	-.869	.55113	.001	1
CalStd12=10	100000.	94137.	-5860.	-5.86	5.2333	.015	1

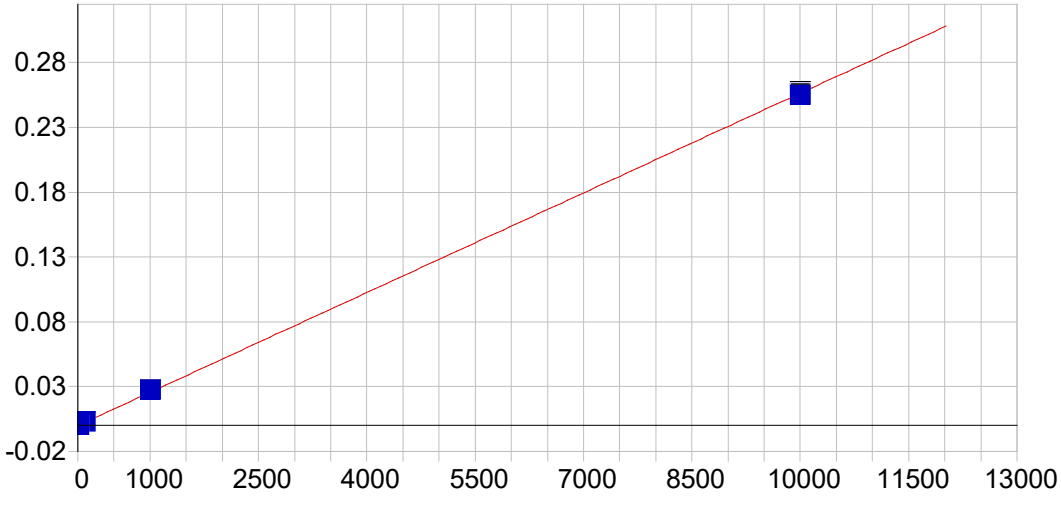


Cr 267.716 {126}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.444836		
Predicted MQL:	1.482788		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00038	-.000	.000	.00000	.000	1
CalStd5=10	10.000	10.150	.150	1.50	.00010	.000	1
CalStd7=50	50.000	49.358	-.642	-1.28	.00050	.000	1
CalStd9=100	1000.0	1000.5	.485	.048	.01018	.000	1
CalStd8=100	100.00	99.616	-.384	-.384	.00101	.000	1
CalStd4=5	5.0000	5.3909	.391	7.82	.00006	.000	1

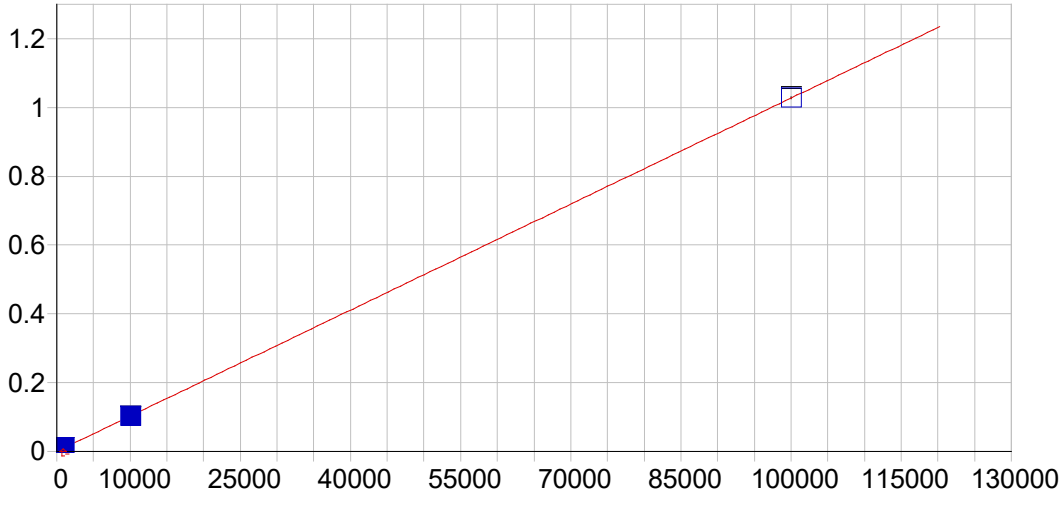


Cu 223.008 {451}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000026	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999725	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	1.174777		
Predicted MQL:	3.915922		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00450	-.005	.000	-.00001	.000	1
CalStd9=100	1000.0	1060.6	60.6	6.06	.02742	.000	1
CalStd8=100	100.00	110.81	10.8	10.8	.00286	.000	1
CalStd5=10	10.000	12.890	2.89	28.9	.00032	.000	1
CalStd10=10	10000.	9925.7	-74.3	-.743	.25681	.001	1

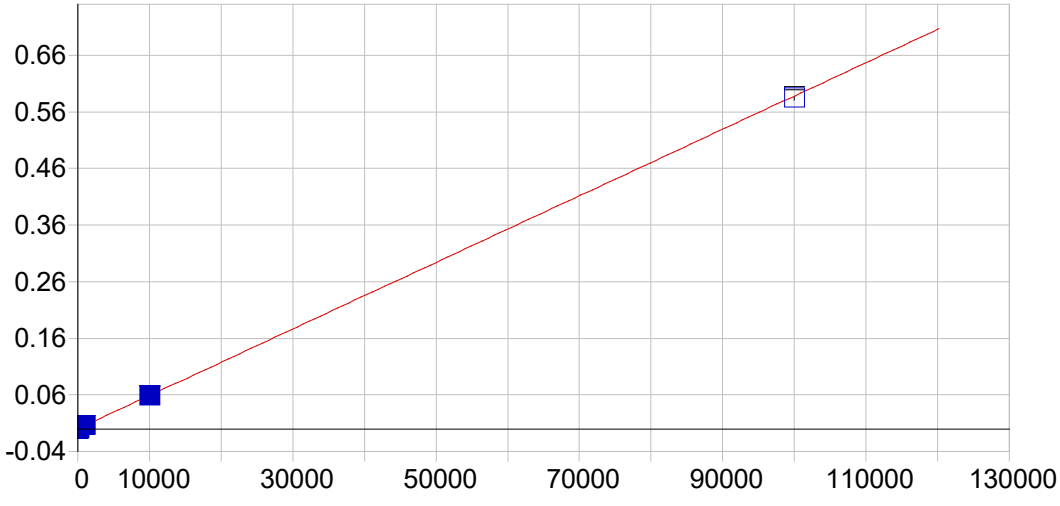


Cu 324.754 {104}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000182	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	2.337594		
Predicted MQL:	7.791981		

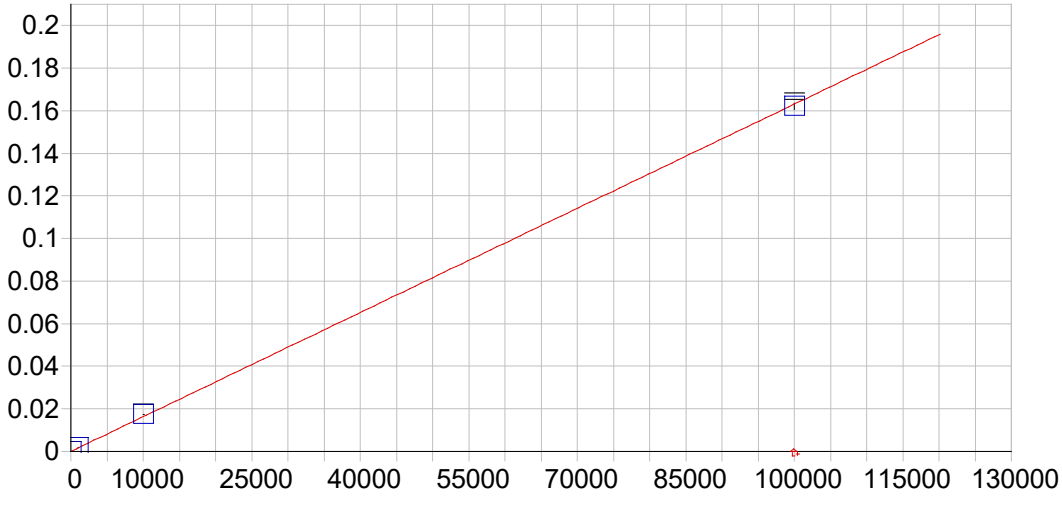
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01067	-.011	.000	.00018	.000	1
CalStd9=100	1000.0	1047.4	47.4	4.74	.01094	.000	1
CalStd8=100	100.00	107.41	7.41	7.41	.00128	.000	1
CalStd10=10	10000.	9842.2	-158.	-1.58	.10124	.000	1
CalStd12=10	100000.	100100.	103.	.103	1.0283	.002	1



Cu 327.396 {103}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000036		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999771		Status:	OK.	
Std Error of Est:	0.000039				
Predicted MDL:	6.453600				
Predicted MQL:	21.511999				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.7176	-3.72	.000	-.00006	.000	1
CalStd6=20	20.000	18.072	-1.93	-9.64	.00007	.000	1
CalStd7=50	50.000	52.618	2.62	5.24	.00027	.000	1
CalStd8=100	100.00	97.619	-2.38	-2.38	.00054	.000	1
CalStd9=100	1000.0	1037.9	37.9	3.79	.00607	.000	1
CalStd10=10	10000.	9783.5	-216.	-2.16	.05750	.000	1
CalStd4=5	5.0000	5.2018	.202	4.04	-.00001	.000	1
CalStd5=10	10.000	10.977	.977	9.77	.00003	.000	1
CalStd12=10	100000.	99274.	-726.	-.726	.58379	.003	1

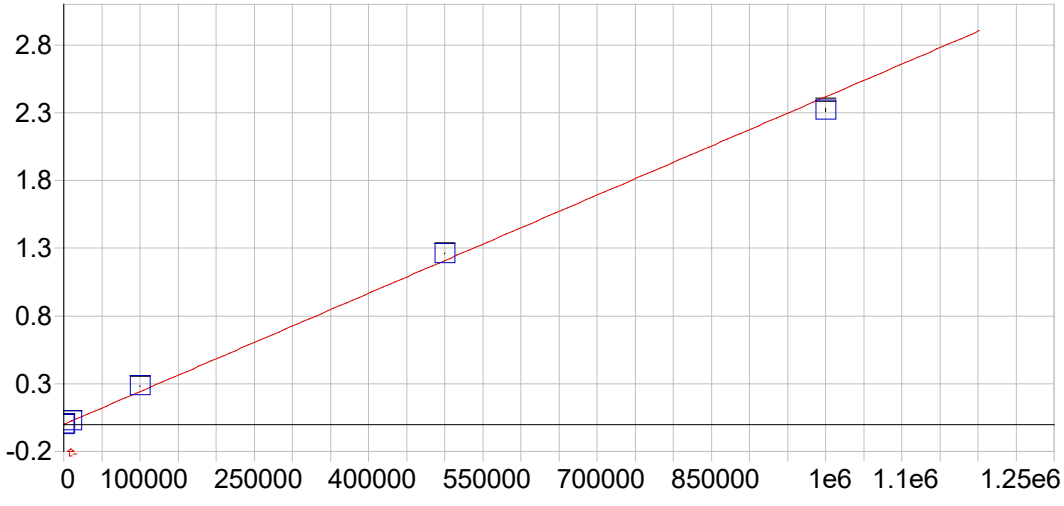


Fe 234.349 {144}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999757	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.789320		
Predicted MQL:	2.631066		

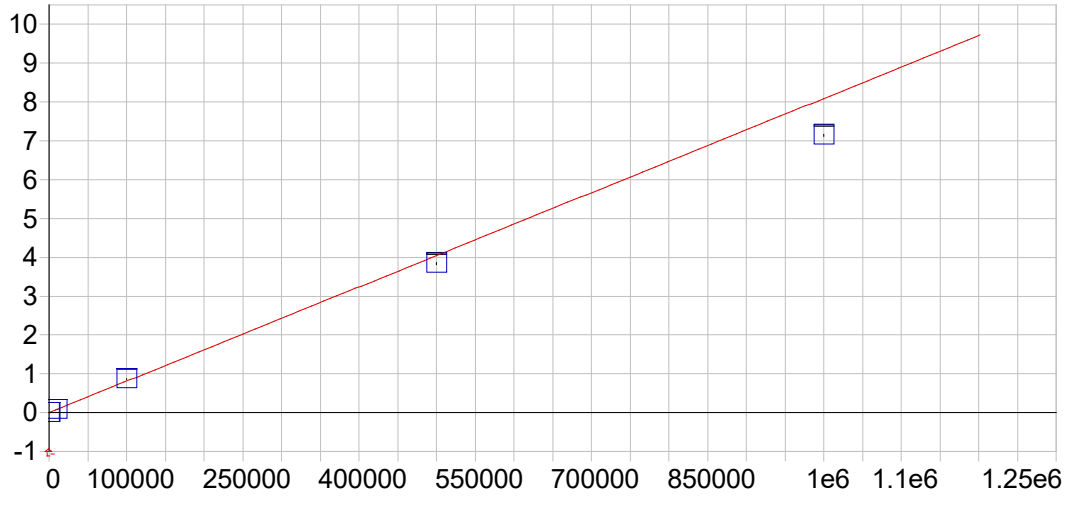
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.13552	-.136	.000	.00001	.000	1
CalStd10=10	10000.	10653.	653.	6.53	.01739	.000	1
CalStd13=10	100000.	99269.	-731.	-.731	.16192	.001	1
CalStd9=100	1000.0	1077.5	77.5	7.75	.00177	.000	1



Fe 239.562 {140}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998239		Status:	OK.	
Std Error of Est:	0.000223				
Predicted MDL:	4.025814				
Predicted MQL:	13.419380				

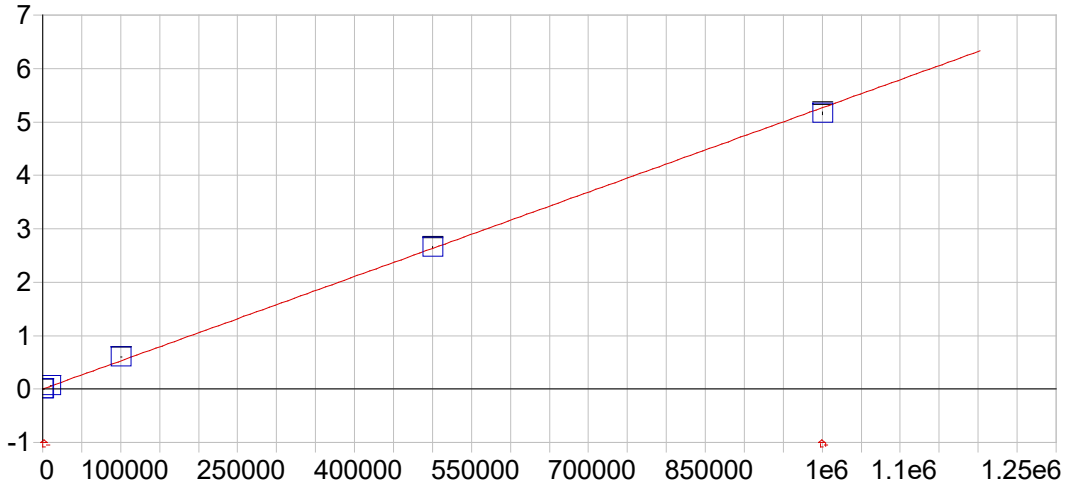
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.51452	-.515	.000	.00000	.000	1
CalStd10=10	10000.	11353.	1350.	13.5	.02744	.000	1
CalStd13=10	100000.	117060.	17100.	17.1	.28291	.001	1
CalStd14=50	500000.	521630.	21600.	4.33	1.2607	.001	1
CalStd9=100	1000.0	1205.7	206.	20.6	.00292	.000	1
CalibStd15=	1000000.	959750.	-40200.	-4.02	2.3196	.011	1



Fe 259.940 {129}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000125		Re-Slope:	1.000000	
A1 (Gain):	0.000008		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.996556		Status:	OK.	
Std Error of Est:	0.000870				
Predicted MDL:	1.832884				
Predicted MQL:	6.109612				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-16.664	-16.7	.000	-.00001	.000	1
CalStd10=10	10000.	10354.	354.	3.54	.08388	.000	1
CalStd13=10	100000.	107040.	7040.	7.04	.86601	.002	1
CalStd14=50	500000.	475170.	-24800.	-4.97	3.8440	.022	1
CalStd9=100	1000.0	1083.6	83.6	8.36	.00889	.000	1
CalibStd15=	1000000.	882760.	-117000.	-11.7	7.1413	.022	1

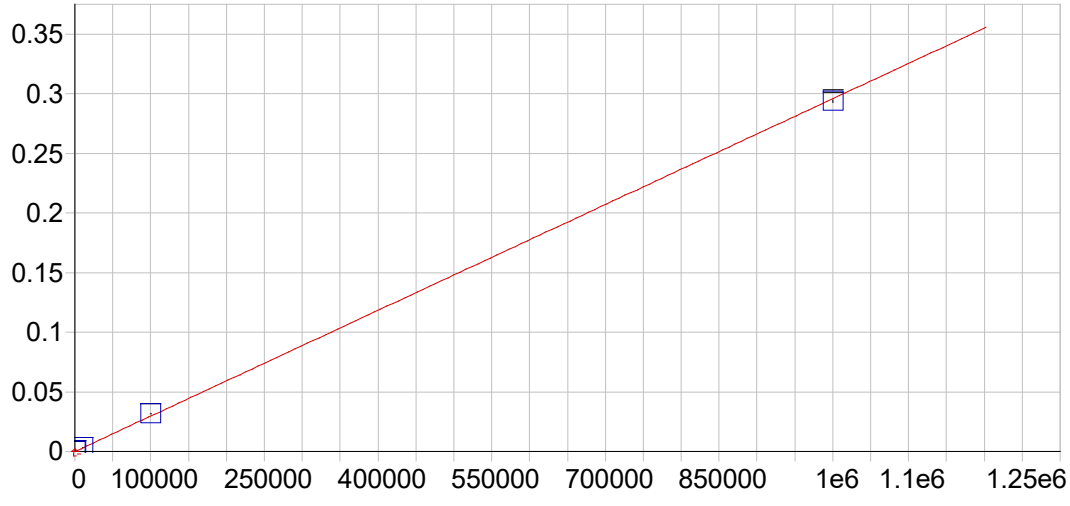


Mg 202.582 {466}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000169	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999168	Status:	OK.
Std Error of Est:	0.000334		
Predicted MDL:	4.047652		
Predicted MQL:	13.492174		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.55045	-.550	.000	-.00017	.000	1
CalStd13=10	100000.	114270.	14300.	14.3	.60146	.003	1
CalStd10=10	10000.	11135.	1130.	11.3	.05846	.000	1
CalStd14=50	500000.	504100.	4100.	.821	2.6539	.011	1
CalStd9=100	1000.0	1305.9	306.	30.6	.00671	.000	1
CalibStd15=	1000000.	980190.	-19800.	-1.98	5.1605	.020	1

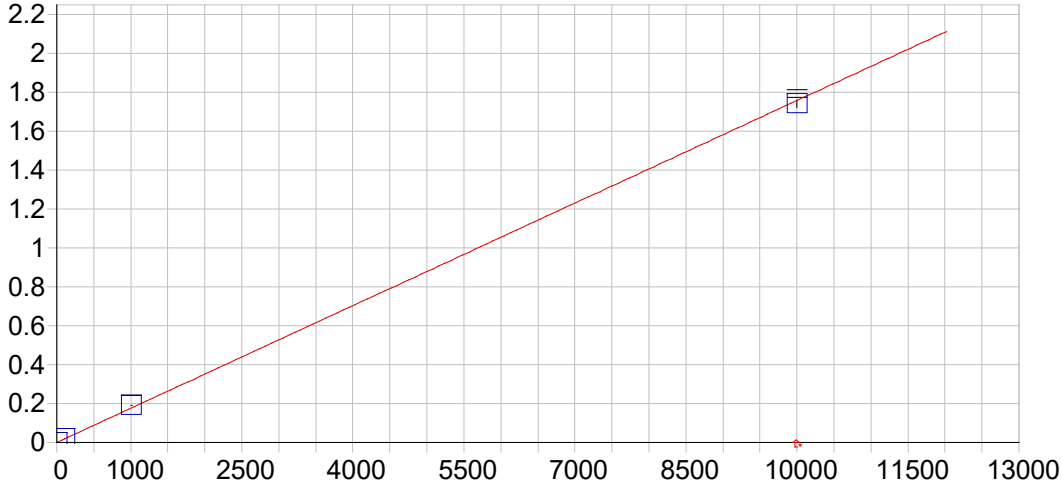


Mg 279.079 {121}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999781	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	22.928834		
Predicted MQL:	76.429447		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.14619	-.146	.000	.00001	.000	1
CalStd13=10	100000.	106560.	6560.	6.56	.03154	.000	1
CalStd10=10	10000.	10202.	202.	2.02	.00303	.000	1
CalStd9=100	1000.0	1067.2	67.2	6.72	.00033	.000	1
CalibStd15=	1000000.	993170.	-6830.	-.683	.29382	.001	1

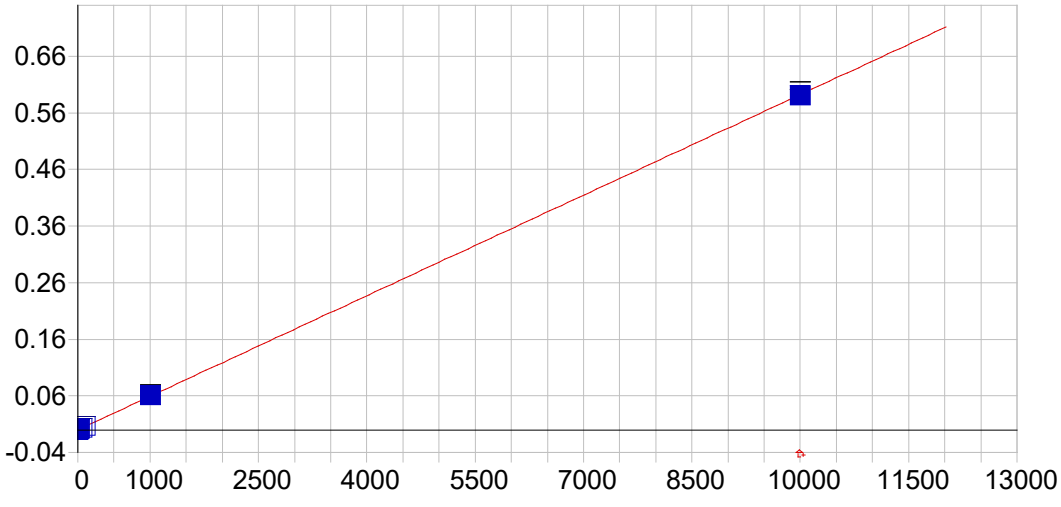


Mg 280.270 {120}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000074	Re-Slope:	1.000000
A1 (Gain):	0.000176	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999570	Status:	OK.
Std Error of Est:	0.000243		
Predicted MDL:	0.013927		
Predicted MQL:	0.046424		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02140	-.021	.000	.00007	.000	1
CalStd9=100	1000.0	1081.4	81.4	8.14	.19019	.001	1
CalStd10=10	10000.	9904.4	-95.6	-.956	1.7414	.019	1
CalStd8=100	100.00	114.22	14.2	14.2	.02015	.000	1

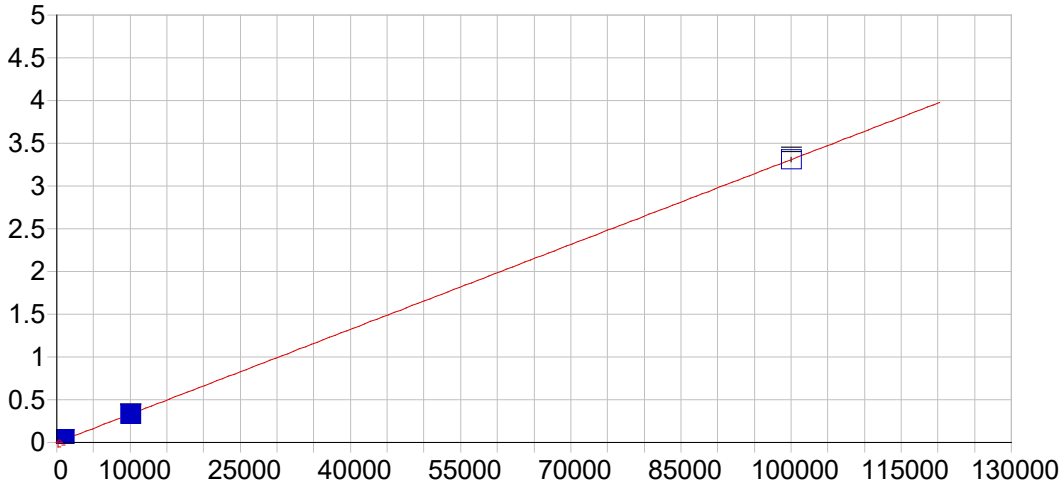


Mn 257.610 {131}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000059	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999951	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.039534		
Predicted MQL:	0.131779		

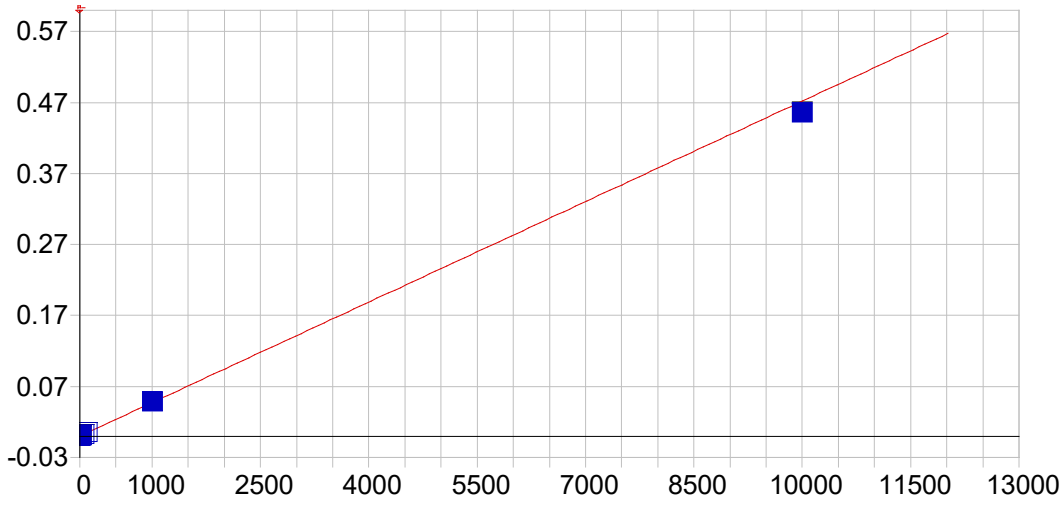
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00201	-.002	.000	-.00001	.000	1
CalStd5=10	10.000	10.850	.850	8.50	.00064	.000	1
CalStd7=50	50.000	51.924	1.92	3.85	.00307	.000	1
CalStd6=20	20.000	21.663	1.66	8.32	.00128	.000	1
CalStd8=100	100.00	103.15	3.15	3.15	.00610	.000	1
CalStd4=5	5.0000	5.7180	.718	14.4	.00033	.000	1
CalStd9=100	1000.0	1022.5	22.5	2.25	.06054	.000	1
CalStd10=10	10000.	9969.2	-30.8	-.308	.59034	.007	1



Mn 259.373 {130}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000022		Re-Slope:	1.000000	
A1 (Gain):	0.000033		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999986		Status:	OK.	
Std Error of Est:	0.000081				
Predicted MDL:	0.421656				
Predicted MQL:	1.405521				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.03878	-.039	.000	.00002	.000	1
CalStd10=10	10000.	9912.7	-87.3	-.873	.32832	.001	1
CalStd9=100	1000.0	1047.1	47.1	4.71	.03470	.000	1
CalStd12=10	100000.	100040.	40.2	.040	3.3097	.026	1

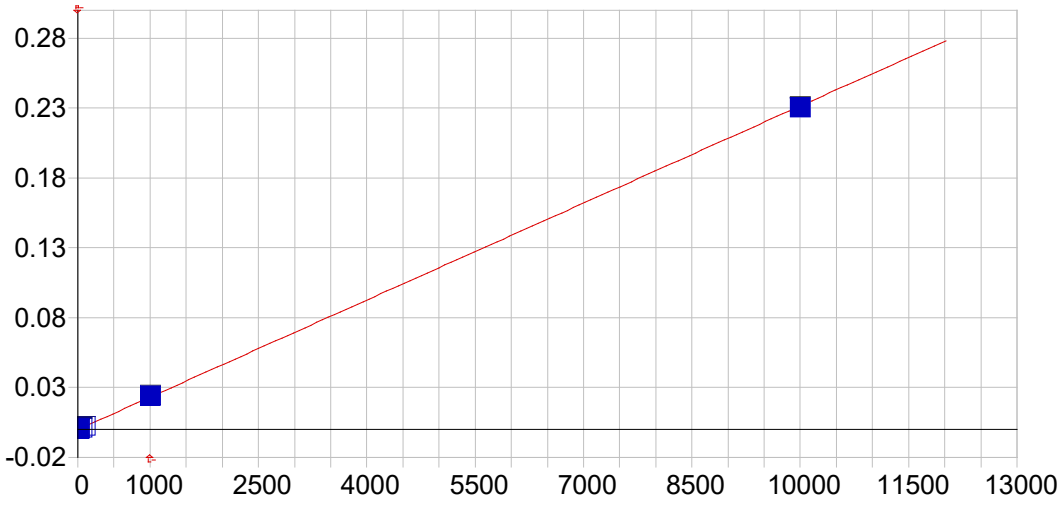


Mo 202.030 {466}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000043	Re-Slope:	1.000000
A1 (Gain):	0.000047	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999760	Status:	OK.
Std Error of Est:	0.000104		
Predicted MDL:	0.389144		
Predicted MQL:	1.297148		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0255	-1.03	.000	-.00001	.000	1
CalStd7=50	50.000	50.065	.065	.131	.00241	.000	1
CalStd6=20	20.000	20.257	.257	1.28	.00100	.000	1
CalStd5=10	10.000	9.6333	-.367	-3.67	.00050	.000	1
CalStd8=100	100.00	100.90	.895	.895	.00481	.000	1
CalStd4=5	5.0000	5.0108	.011	.217	.00028	.000	1
CalStd9=100	1000.0	1012.9	12.9	1.29	.04785	.000	1
CalStd10=10	10000.	9646.6	-353.	-3.53	.45540	.001	1

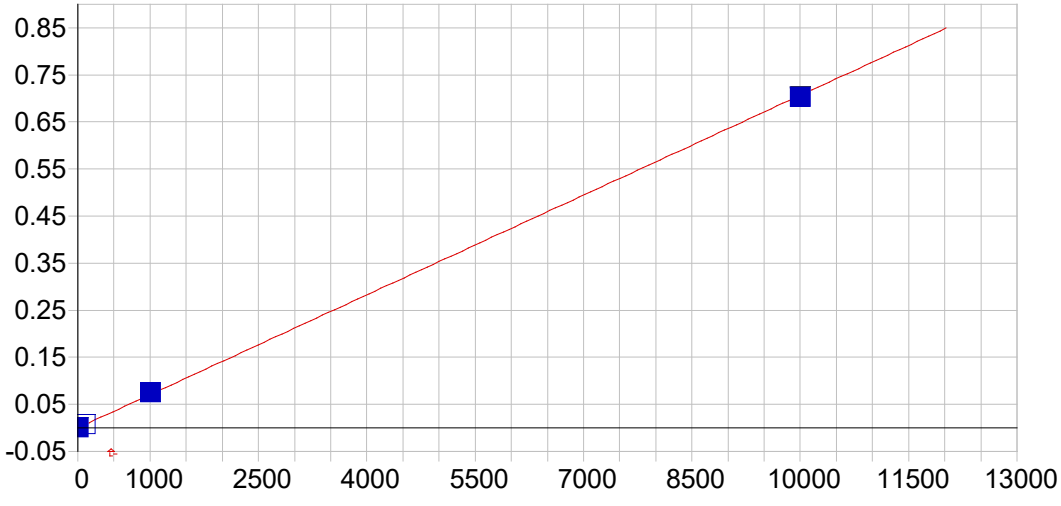


Mo 204.598 {464}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000014	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999872	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.810257		
Predicted MQL:	2.700857		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00318	-.003	.000	-.00001	.000	1
CalStd7=50	50.000	52.561	2.56	5.12	.00120	.000	1
CalStd6=20	20.000	22.000	2.00	10.00	.00050	.000	1
CalStd5=10	10.000	11.753	1.75	17.5	.00026	.000	1
CalStd8=100	100.00	105.14	5.14	5.14	.00242	.000	1
CalStd4=5	5.0000	6.1205	1.12	22.4	.00013	.000	1
CalStd9=100	1000.0	1038.1	38.1	3.81	.02402	.000	1
CalStd10=10	10000.	9949.3	-50.7	-.507	.23032	.000	1

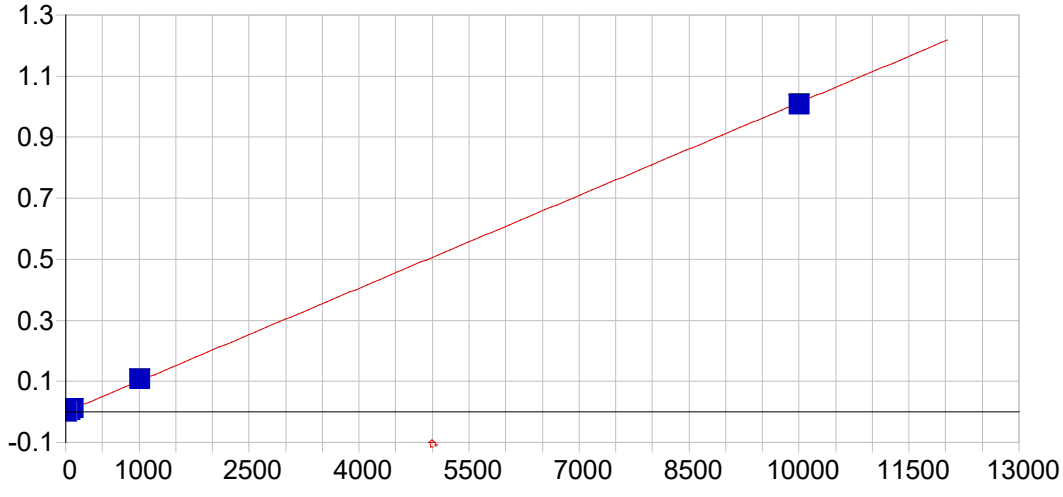


Ni 221.647 {452}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000071	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999832	Status:	OK.
Std Error of Est:	0.000061		
Predicted MDL:	0.467263		
Predicted MQL:	1.557543		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01068	-.011	.000	.00001	.000	1
CalStd10=10	10000.	9939.3	-60.7	-.607	.70227	.001	1
CalStd8=100	100.00	105.79	5.79	5.79	.00748	.000	1
CalStd9=100	1000.0	1054.9	54.9	5.49	.07454	.000	1

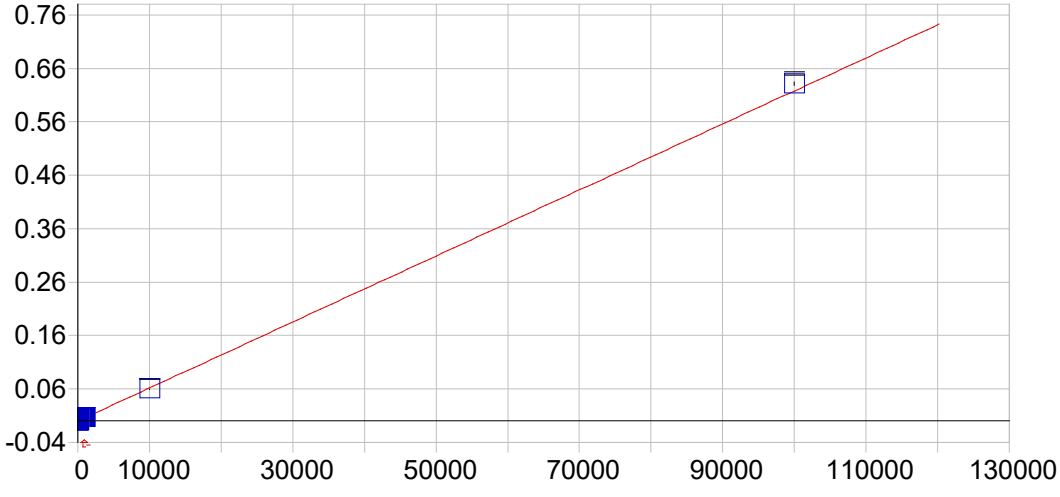


Ni 231.604 {445}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000065	Re-Slope:	1.000000
A1 (Gain):	0.000101	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999789	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.359621		
Predicted MQL:	1.198738		

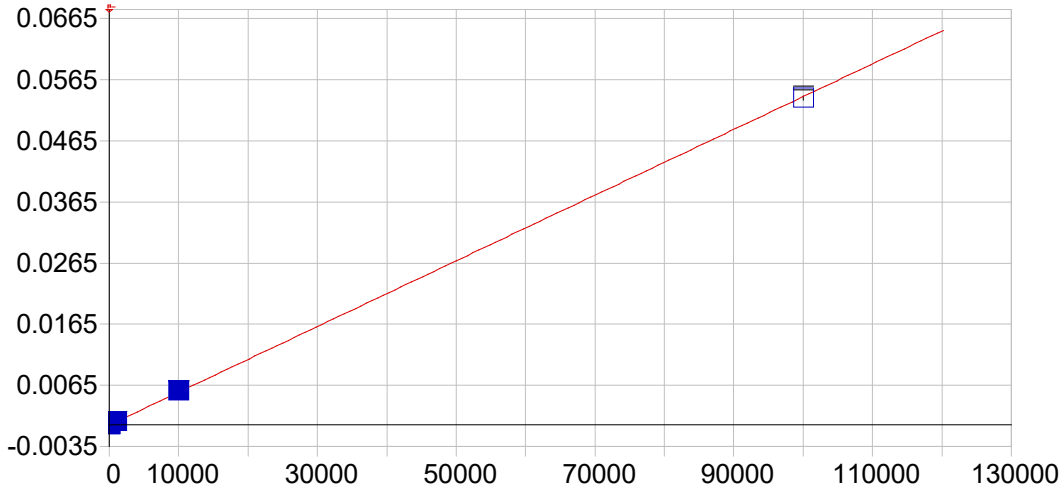
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00102	-.001	.000	-.00006	.000	1
CalStd7=50	50.000	53.848	3.85	7.70	.00539	.000	1
CalStd5=10	10.000	10.714	.714	7.14	.00102	.000	1
CalStd8=100	100.00	106.74	6.74	6.74	.01074	.000	1
CalStd4=5	5.0000	5.7891	.789	15.8	.00052	.000	1
CalStd9=100	1000.0	1054.5	54.5	5.45	.10665	.000	1
CalStd3=1	1.0000	1.5976	.598	59.8	.00010	.000	1
CalStd10=10	10000.	9932.9	-67.1	-.671	1.0070	.002	1



Pb 216.999 {455}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000072		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999341		Status:	OK.	
Std Error of Est:	0.000273				
Predicted MDL:	4.621626				
Predicted MQL:	15.405421				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-17.109	-17.1	.000	-.00003	.000	1
CalStd9=100	1000.0	1047.0	47.0	4.70	.00658	.000	1
CalStd10=10	10000.	9672.0	-328.	-3.28	.05982	.000	1
CalStd8=100	100.00	92.429	-7.57	-7.57	.00065	.000	1
CalStd12=10	100000.	102200.	2200.	2.20	.63136	.002	1

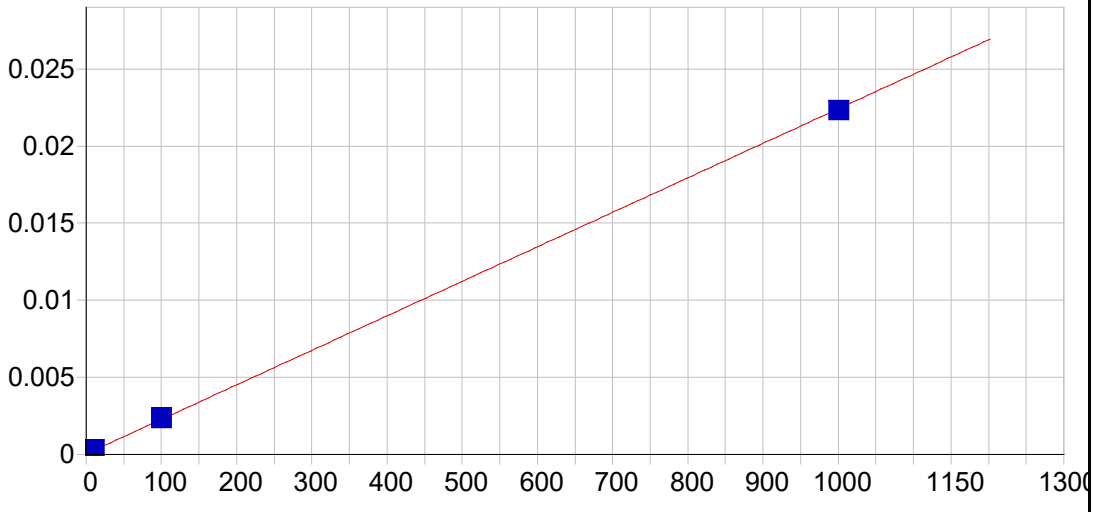


Pb 220.353 {153}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.386308		
Predicted MQL:	11.287692		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01805	-.018	.000	.00000	.000	1
CalStd9=100	1000.0	1067.2	67.2	6.72	.00057	.000	1
CalStd10=10	10000.	10390.	390.	3.90	.00558	.000	1
CalStd8=100	100.00	107.90	7.90	7.90	.00006	.000	1
CalStd12=10	100000.	99535.	-465.	-.465	.05349	.000	1

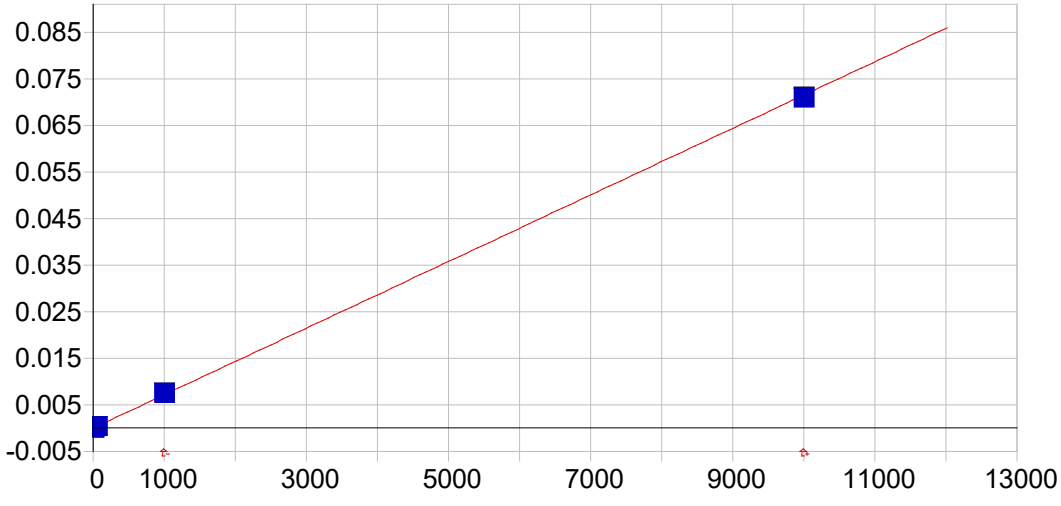


Pb 220.353 {453}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000038	Re-Slope:	1.000000
A1 (Gain):	0.000022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999443	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.577676		
Predicted MQL:	5.258920		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00295	-.003	.000	.00004	.000	1
CalStd5=10	10.000	12.531	2.53	25.3	.00032	.000	1
CalStd8=100	100.00	102.02	2.02	2.02	.00232	.000	1
CalStd4=5	5.0000	6.6173	1.62	32.3	.00019	.000	1
CalStd9=100	1000.0	993.83	-6.17	-.617	.02228	.000	1

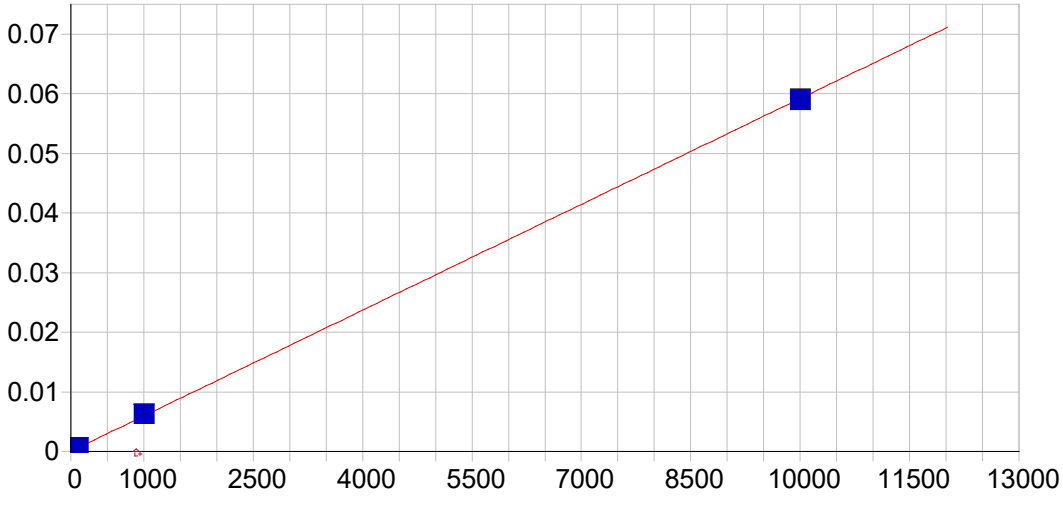


Sb 206.833 {463}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999826	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	2.589975		
Predicted MQL:	8.633249		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.7576	-4.76	.000	-.00001	.000	1
CalStd9=100	1000.0	1032.5	32.5	3.25	.00740	.000	1
CalStd5=10	10.000	9.5810	-.419	-4.19	.00009	.000	1
CalStd7=50	50.000	49.947	-.053	-.105	.00038	.000	1
CalStd10=10	10000.	9905.8	-94.2	-.942	.07084	.000	1

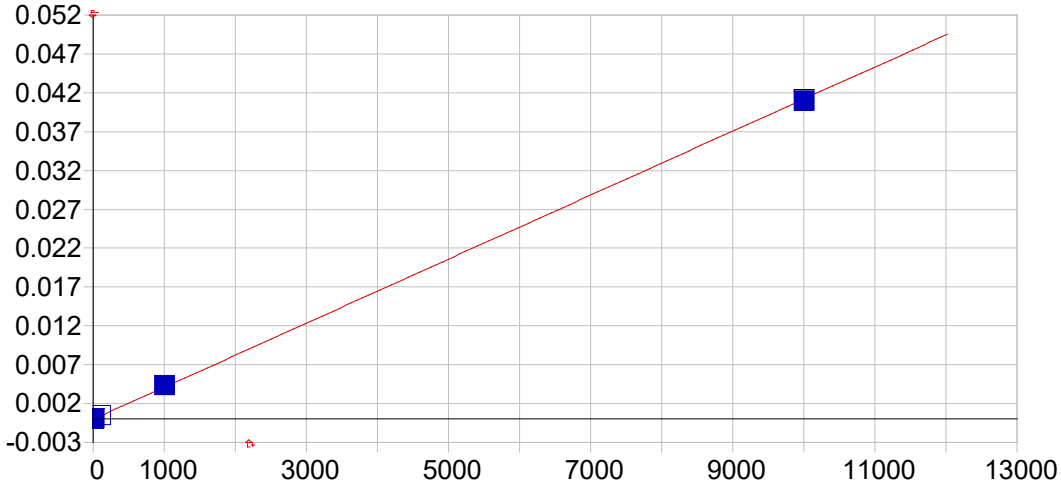


Sb 217.581 {455}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000032	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999667	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.758732		
Predicted MQL:	12.529106		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00656	-.007	.000	.00003	.000	1
CalStd9=100	1000.0	1042.3	42.3	4.23	.00620	.000	1
CalStd6=20	20.000	22.577	2.58	12.9	.00017	.000	1
CalStd5=10	10.000	11.595	1.59	15.9	.00010	.000	1
CalStd8=100	100.00	106.74	6.74	6.74	.00066	.000	1
CalStd4=5	5.0000	9.6016	4.60	92.0	.00009	.000	1
CalStd10=10	10000.	9942.2	-57.8	-.578	.05885	.000	1

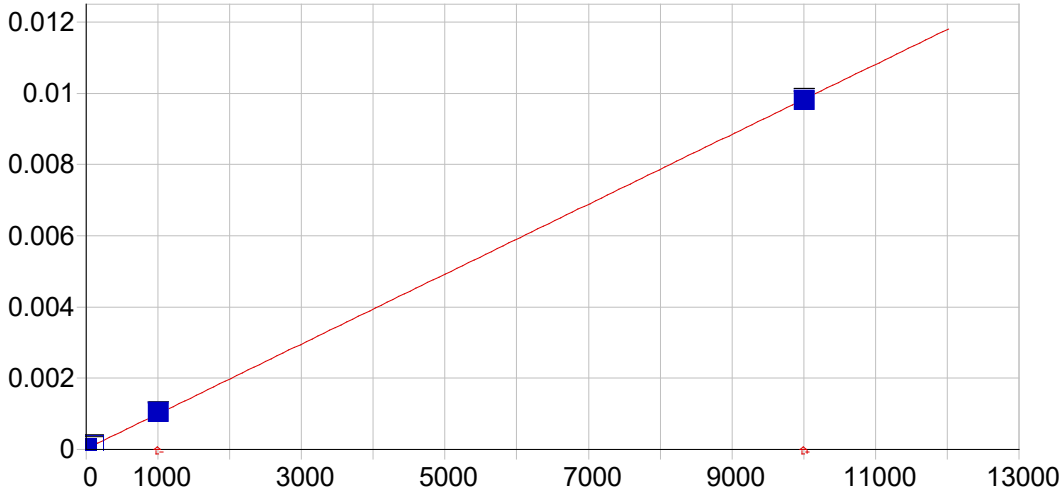


Se 196.090 {472}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999819	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.635172		
Predicted MQL:	15.450573		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00079	-.001	.000	-.00001	.000	1
CalStd9=100	1000.0	1052.0	52.0	5.20	.00432	.000	1
CalStd5=10	10.000	9.3737	-.626	-6.26	.00002	.000	1
CalStd8=100	100.00	109.59	9.59	9.59	.00044	.000	1
CalStd10=10	10000.	9939.1	-60.9	-.609	.04094	.000	1

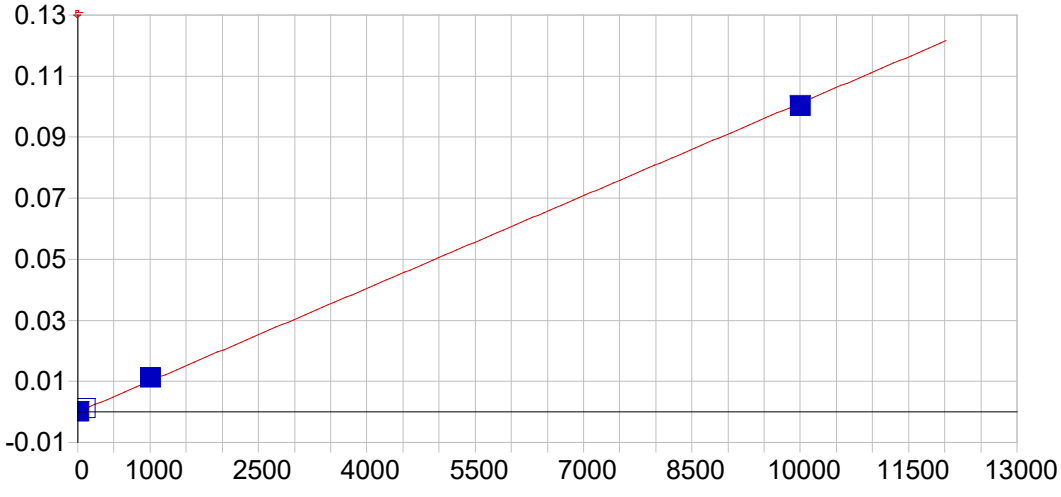


Se 206.279 {463}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999840	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	21.499752		
Predicted MQL:	71.665842		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00946	.009	.000	.00002	.000	1
CalStd9=100	1000.0	1041.4	41.4	4.14	.00104	.000	1
CalStd10=10	10000.	9971.9	-28.1	-.281	.00981	.000	1
CalStd8=100	100.00	86.681	-13.3	-13.3	.00010	.000	1

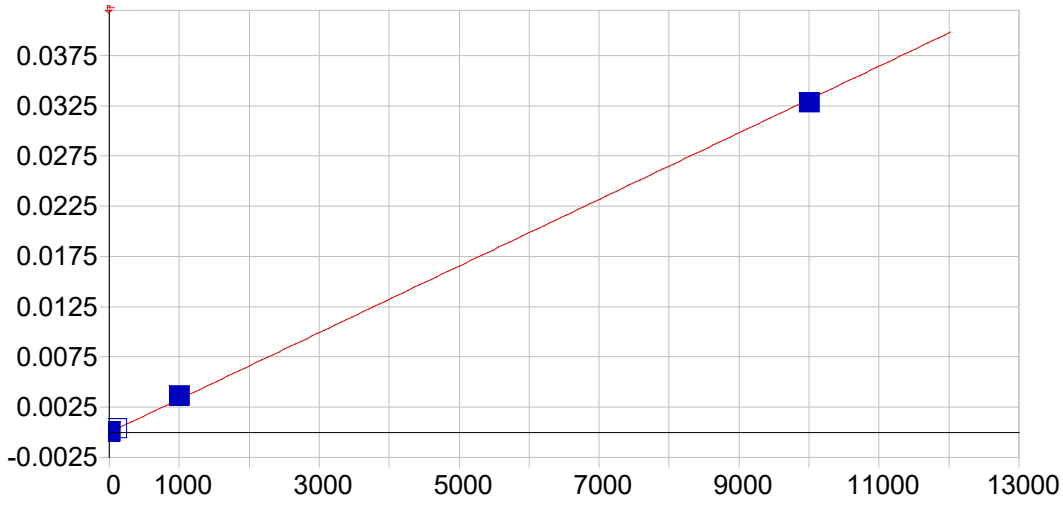


TI 190.856 {476}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999511	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	1.919542		
Predicted MQL:	6.398473		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00255	-.003	.000	-.00001	.000	1
CalStd9=100	1000.0	1092.7	92.7	9.27	.01105	.000	1
CalStd8=100	100.00	110.72	10.7	10.7	.00111	.000	1
CalStd5=10	10.000	10.658	.658	6.58	.00010	.000	1
CalStd10=10	10000.	9895.9	-104.	-1.04	.10012	.000	1

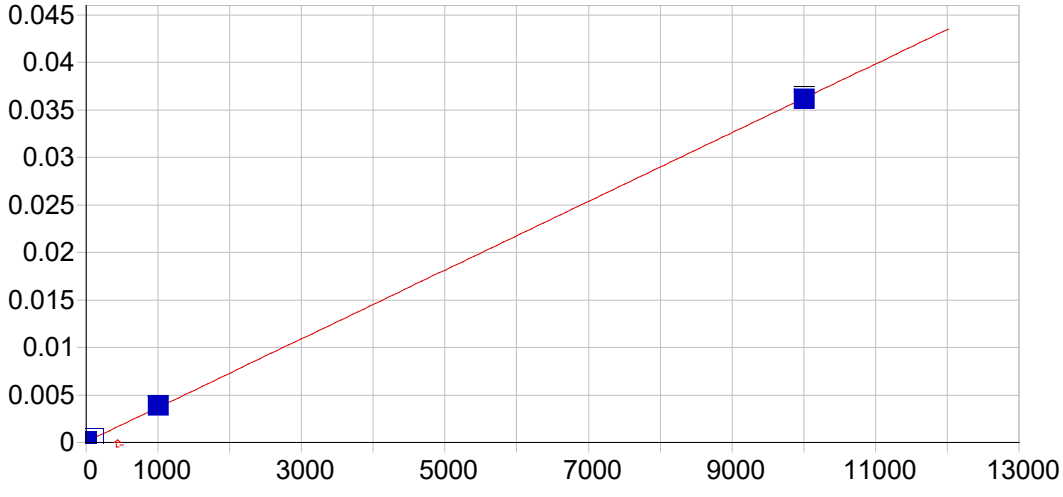


Tl 190.856 {477}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999409	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	4.007124		
Predicted MQL:	13.357079		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00680	-.007	.000	-.00002	.000	1
CalStd9=100	1000.0	1090.6	90.6	9.06	.00360	.000	1
CalStd8=100	100.00	112.20	12.2	12.2	.00035	.000	1
CalStd5=10	10.000	14.787	4.79	47.9	.00003	.000	1
CalStd10=10	10000.	9892.4	-108.	-1.08	.03276	.000	1

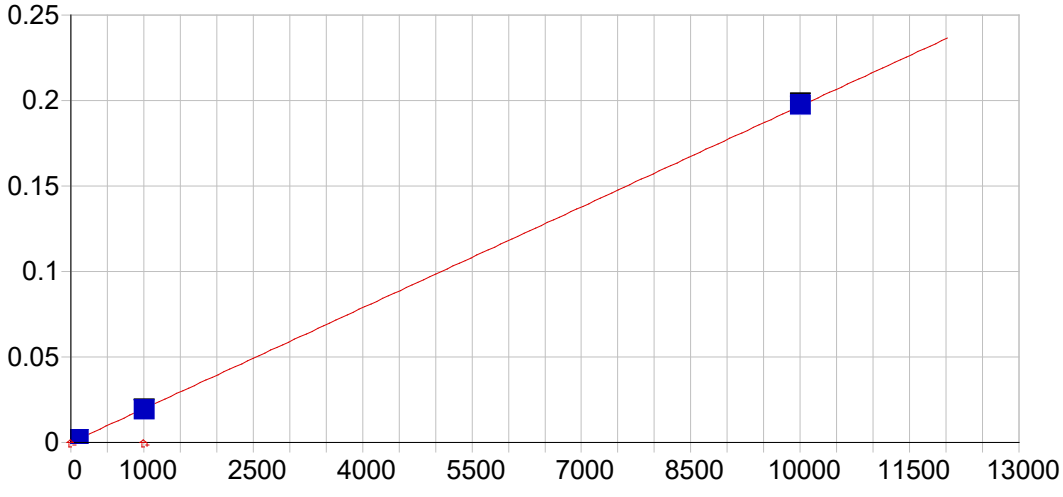


V 290.882 {116}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000057	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	4.855216		
Predicted MQL:	16.184052		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00163	-.002	.000	.00006	.000	1
CalStd9=100	1000.0	1034.6	34.6	3.46	.00380	.000	1
CalStd10=10	10000.	9966.9	-33.1	-.331	.03612	.000	1
CalStd8=100	100.00	98.504	-1.50	-1.50	.00041	.000	1

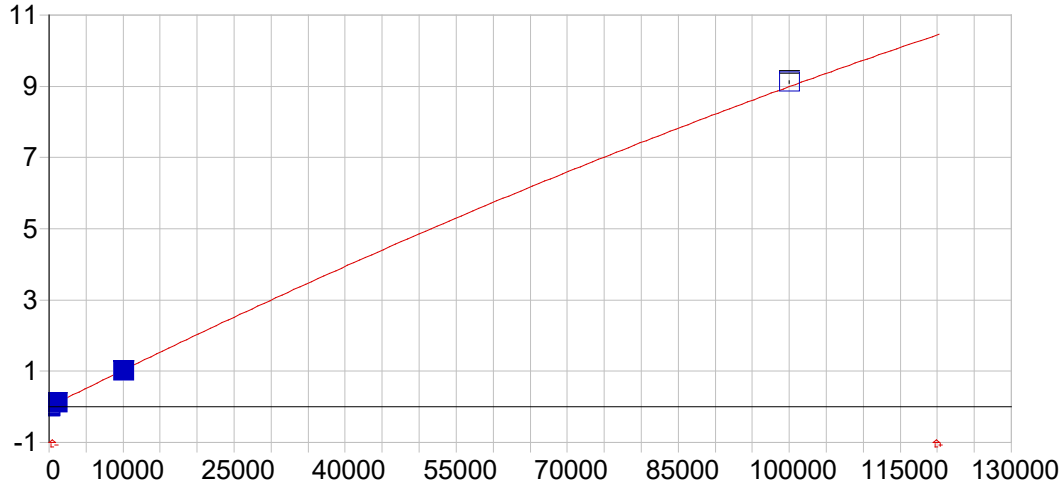


V 292.402 {115}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.404753		
Predicted MQL:	1.349176		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00098	.001	.000	.00002	.000	1
CalStd7=50	50.000	47.953	-2.05	-4.09	.00096	.000	1
CalStd9=100	1000.0	975.04	-25.0	-2.50	.01918	.000	1
CalStd6=20	20.000	20.045	.045	.224	.00042	.000	1
CalStd5=10	10.000	9.9037	-.096	-.963	.00022	.000	1
CalStd8=100	100.00	97.180	-2.82	-2.82	.00193	.000	1
CalStd10=10	10000.	10030.	29.9	.299	.19709	.001	1

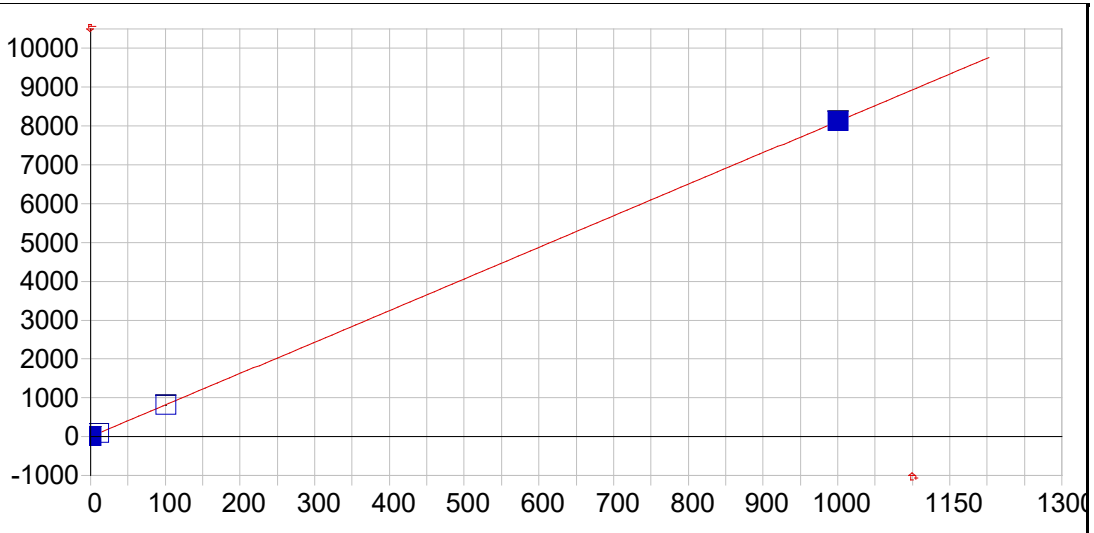


Zn 206.200 {463}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000118	Re-Slope:	1.000000
A1 (Gain):	0.000104	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999818	Status:	OK.
Std Error of Est:	0.000218		
Predicted MDL:	0.202209		
Predicted MQL:	0.674030		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9772.5	-227.	-2.27	1.0053	.001	1
Blank	.00000	-1.0631	-1.06	.000	.00001	.000	1
CalStd9=100	1000.0	1016.7	16.7	1.67	.10597	.000	1
CalStd12=10	100000.	101820.	1820.	1.82	9.1255	.036	1
CalStd5=10	10.000	9.7892	-.211	-2.11	.00114	.000	1
CalStd8=100	100.00	100.90	.904	.904	.01064	.000	1

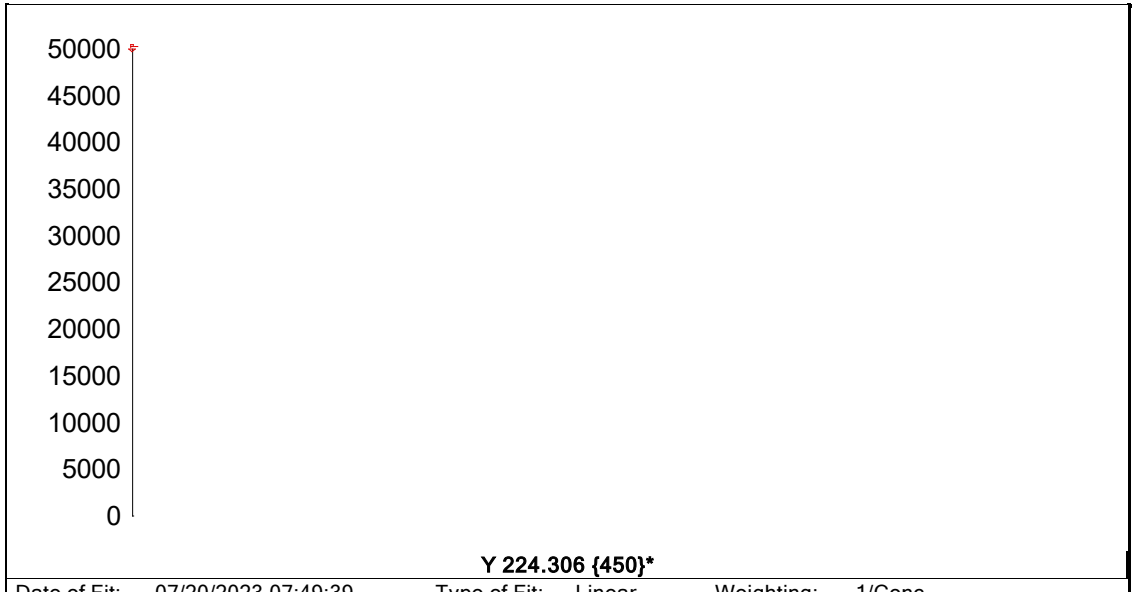


Zn 213.856 {457}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.778830	Re-Slope:	1.000000
A1 (Gain):	8.122845	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.280049		
Predicted MDL:	0.140420		
Predicted MQL:	0.468067		

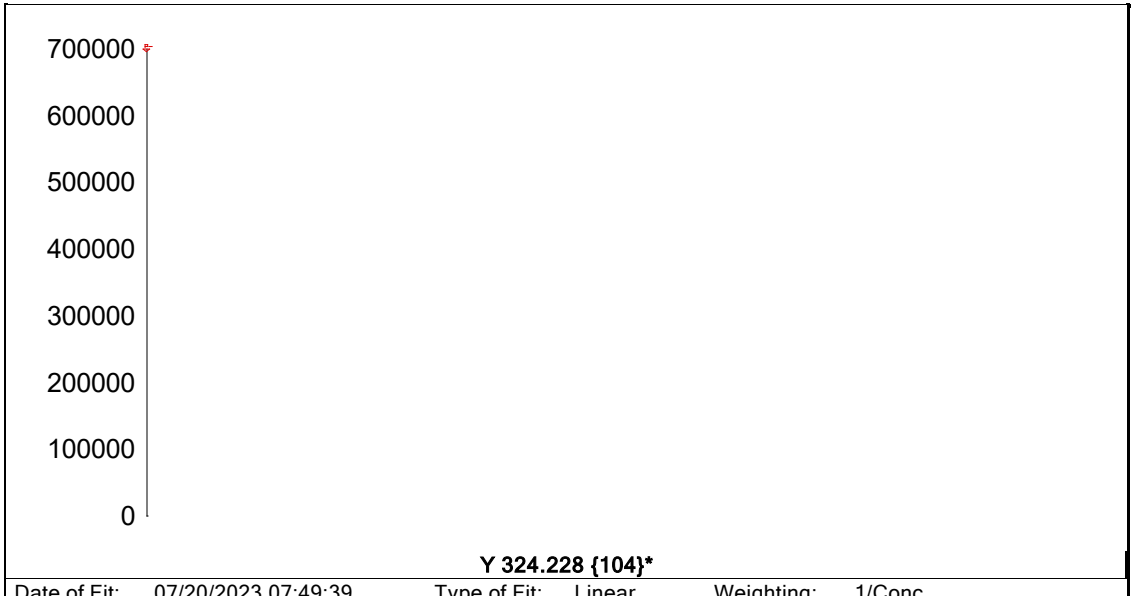
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00069	-.001	.000	-.78442	.632	1
CalStd9=100	1000.0	999.84	-.164	-.016	8121.4	5.31	1
CalStd5=10	10.000	10.748	.748	7.48	86.529	1.18	1
CalStd8=100	100.00	99.416	-.584	-.584	806.76	1.79	1



Y 224.306 {450}*

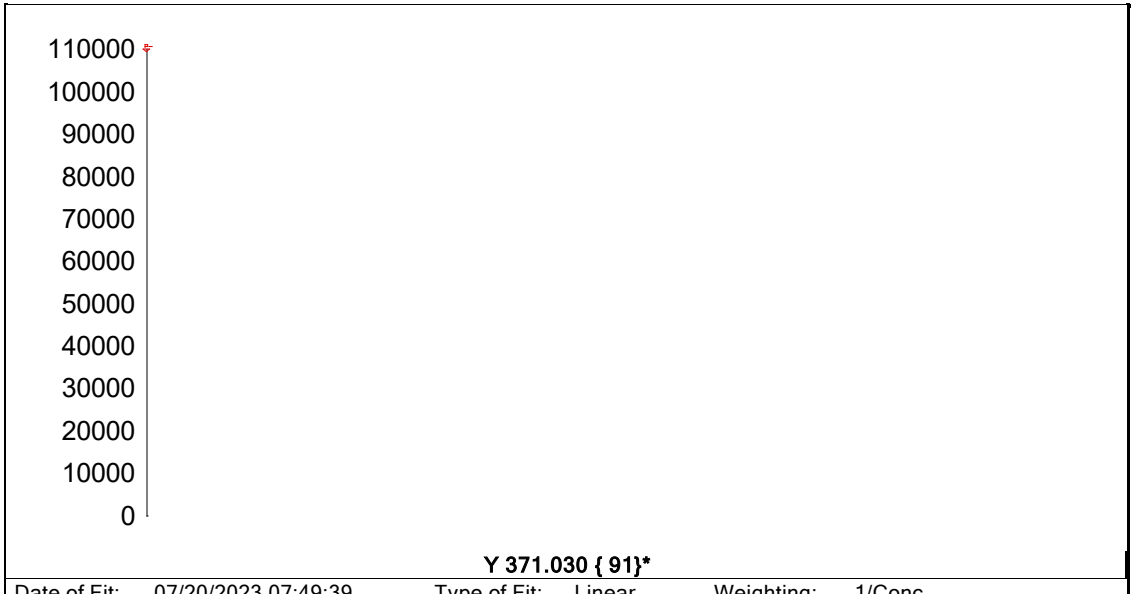
Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	46935.	102.	1



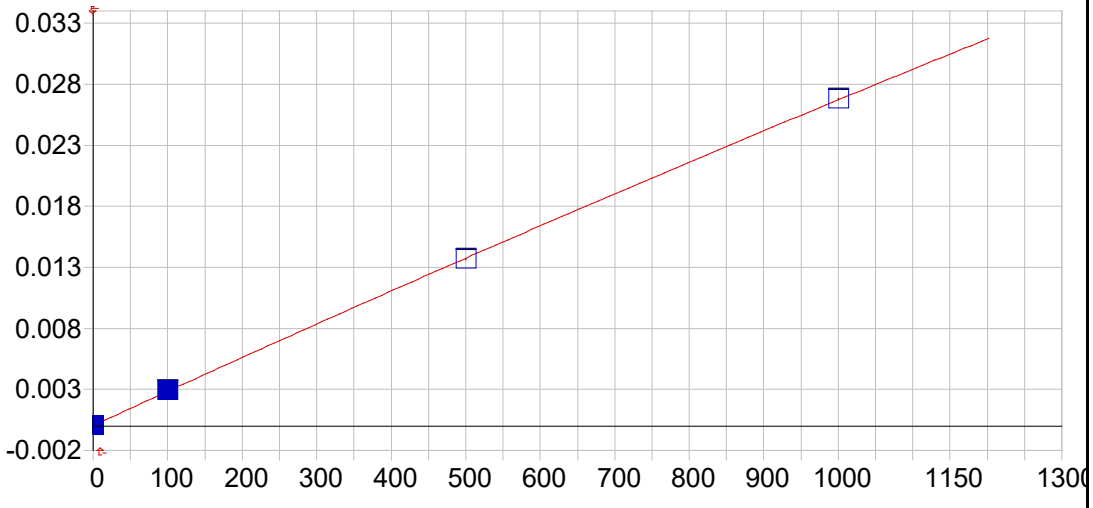
Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	650960.	2650.	1



Date of Fit:	07/20/2023 07:49:39		Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):		0.000000		Re-Slope:	1.000000		
A1 (Gain):		0.000000		Y-int:	0.000000		
A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

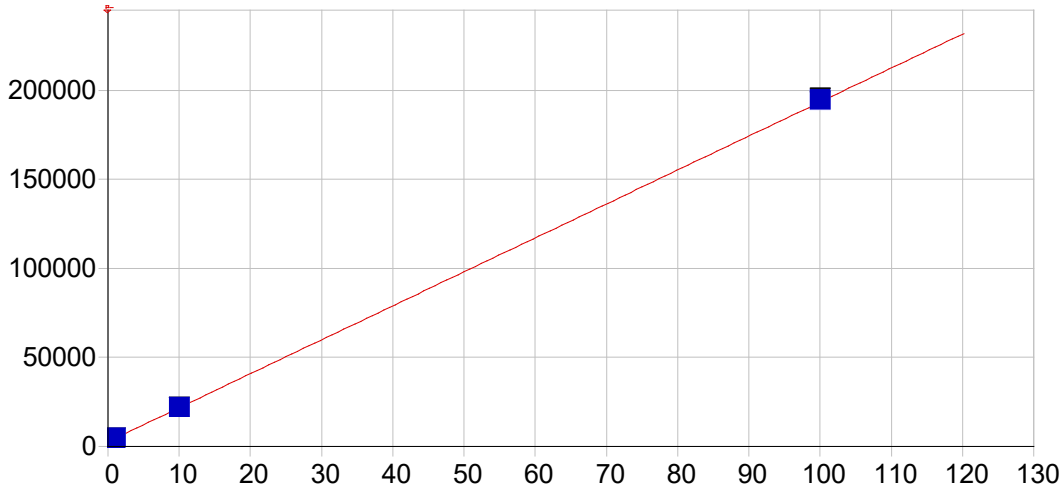
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	101290.	529.	1



Na 330.237 {102}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000041		Re-Slope:	1.000000	
A1 (Gain):	0.000028		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999953		Status:	OK.	
Std Error of Est:	0.000109				
Predicted MDL:	1.017145				
Predicted MQL:	3.390485				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0254	-1.03	.000	.00001	.000	1
CalStd13=10	100.00	102.75	2.75	2.75	.00290	.000	1
CalibStd15=	1000.0	1002.9	2.93	.293	.02679	.000	1
CalStd14=50	500.00	497.19	-2.81	-.562	.01367	.000	1

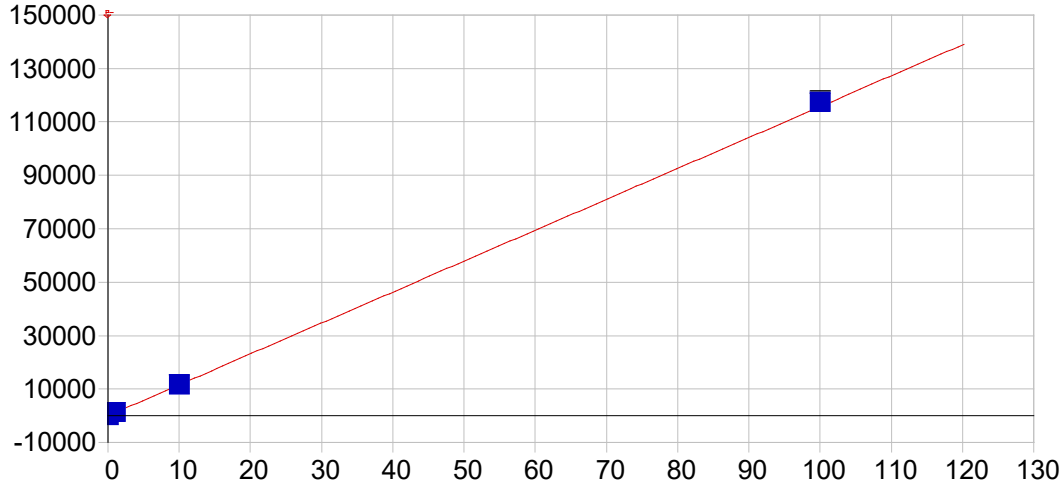


Na 588.995 { 57}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	2682.855229	Re-Slope:	1.000000
A1 (Gain):	1907.012748	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999828	Status:	OK.
Std Error of Est:	155.920143		
Predicted MDL:	0.007347		
Predicted MQL:	0.024488		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.07390	.074	.000	2823.8	24.9	1
CalStd9=100	1.0000	.95080	-.049	-4.92	4495.0	19.7	1
CalStd10=10	10.000	10.017	.017	.174	21776.	48.2	1
CalStd13=10	100.00	100.53	.530	.530	194300.	1010.	1

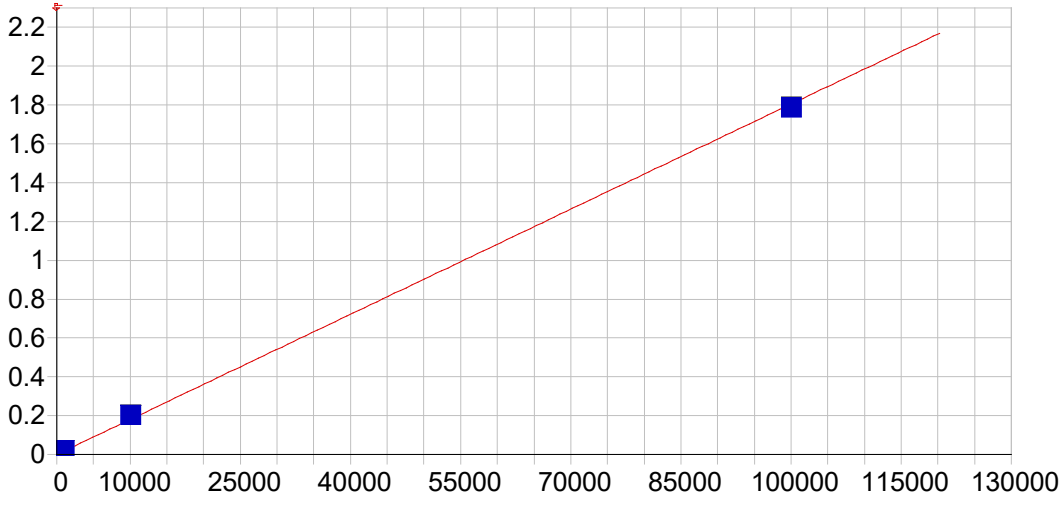


Na 589.592 { 57}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	4.195406	Re-Slope:	1.000000
A1 (Gain):	1157.156044	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	27.010922		
Predicted MDL:	0.007549		
Predicted MQL:	0.025163		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00550	-.005	.000	-2.1680	3.03	1
CalStd9=100	1.0000	1.0364	.036	3.64	1203.8	7.10	1
CalStd10=10	10.000	9.9901	-.010	-.099	11567.	8.78	1
CalStd13=10	100.00	101.37	1.37	1.37	117330.	492.	1

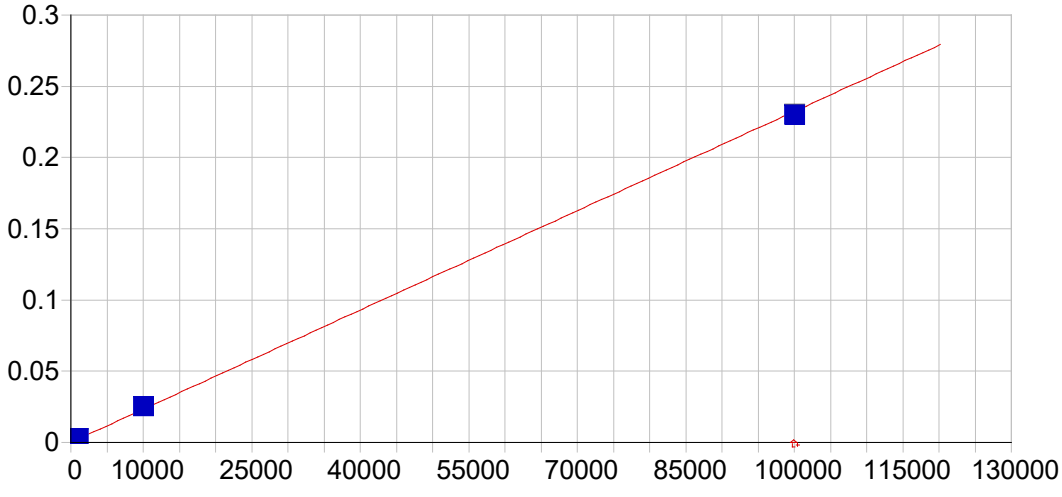


Si 212.412 {458}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000109	Re-Slope:	1.000000
A1 (Gain):	0.000018	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999318	Status:	OK.
Std Error of Est:	0.000314		
Predicted MDL:	1.378404		
Predicted MQL:	4.594681		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.18593	-.186	.000	.00011	.000	1
CalStd9=100	1000.0	1084.3	84.3	8.43	.01968	.000	1
CalStd10=10	10000.	11138.	1140.	11.4	.20113	.000	1
CalStd13=10	100000.	98777.	-1220.	-1.22	1.7828	.006	1

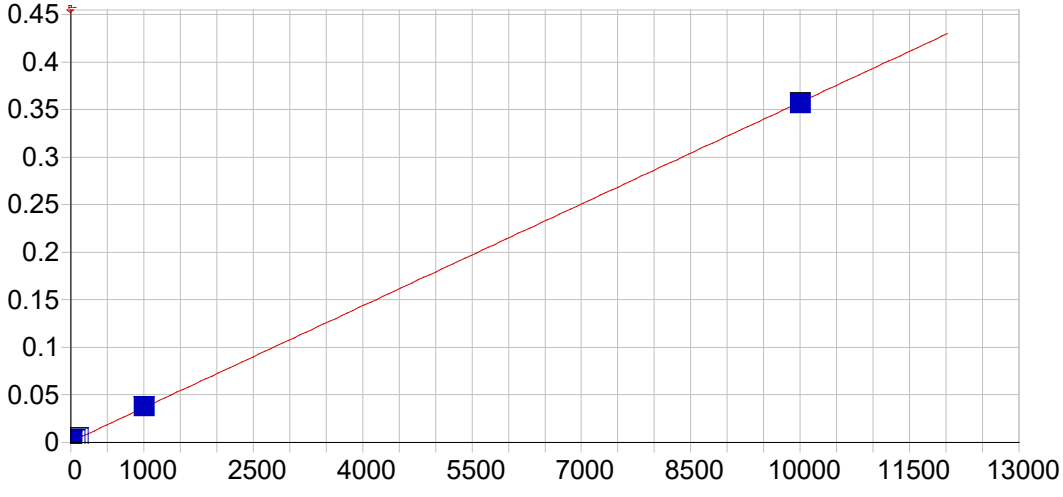


Si 251.611 {134}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999586	Status:	OK.
Std Error of Est:	0.000140		
Predicted MDL:	5.517826		
Predicted MQL:	18.392754		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.1398	-7.14	.000	.00002	.000	1
CalStd9=100	1000.0	1044.6	44.6	4.46	.00247	.000	1
CalStd10=10	10000.	10771.	771.	7.71	.02506	.000	1
CalStd13=10	100000.	98845.	-1160.	-1.16	.22965	.000	1

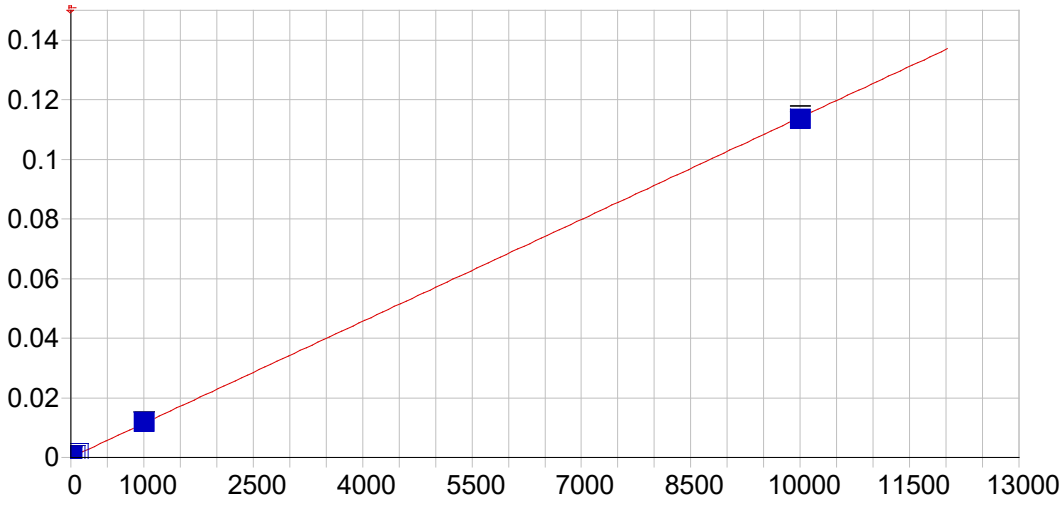


Ti 323.452 {104}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000883	Re-Slope:	1.000000
A1 (Gain):	0.000036	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999808	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.895783		
Predicted MQL:	2.985944		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00497	-.005	.000	.00088	.000	1
CalStd5=10	10.000	12.451	2.45	24.5	.00133	.000	1
CalStd8=100	100.00	105.45	5.45	5.45	.00465	.000	1
CalStd9=100	1000.0	1033.6	33.6	3.36	.03779	.000	1
CalStd10=10	10000.	9951.9	-48.1	-.481	.35623	.001	1
CalStd7=50	50.000	53.722	3.72	7.44	.00280	.000	1
CalStd4=5	5.0000	7.9534	2.95	59.1	.00117	.000	1

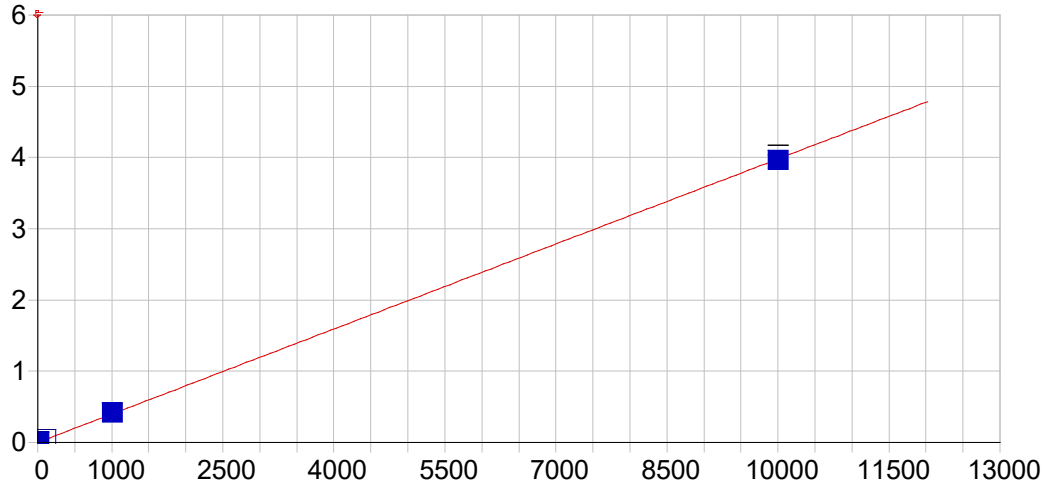


Ti 334.941 {101}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000029	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999835	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.596988		
Predicted MQL:	5.323292		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00413	-.004	.000	.00003	.000	1
CalStd5=10	10.000	12.461	2.46	24.6	.00017	.000	1
CalStd8=100	100.00	105.70	5.70	5.70	.00123	.000	1
CalStd9=100	1000.0	1036.4	36.4	3.64	.01185	.000	1
CalStd10=10	10000.	9949.5	-50.5	-.505	.11348	.001	1
CalStd7=50	50.000	53.949	3.95	7.90	.00064	.000	1
CalStd4=5	5.0000	7.0654	2.07	41.3	.00011	.000	1

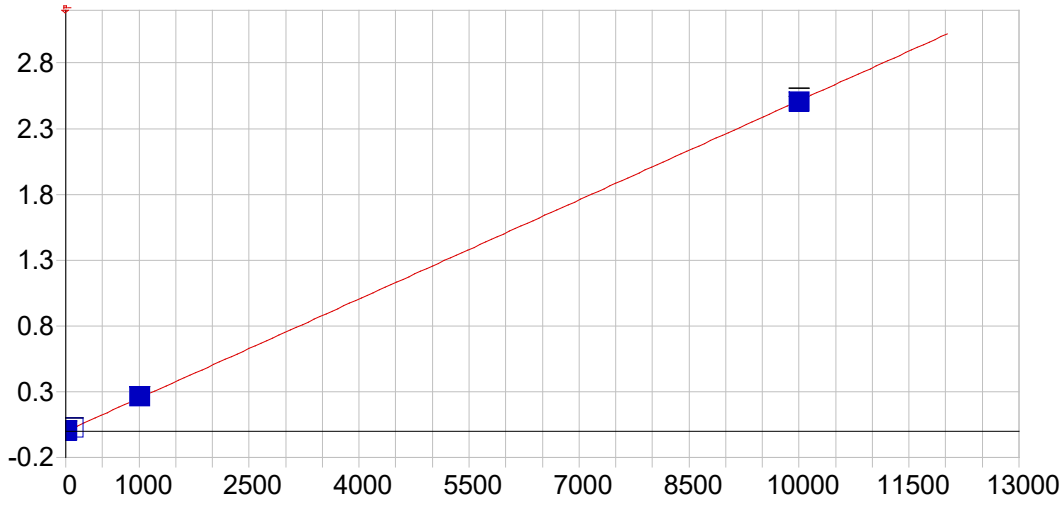


Sr 407.771 { 83}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000213	Re-Slope:	1.000000
A1 (Gain):	0.000398	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999891	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.110080		
Predicted MQL:	0.366934		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00047	-.000	.000	.00021	.000	1
CalStd3=1	1.0000	1.1939	.194	19.4	.00069	.000	1
CalStd4=5	5.0000	5.5525	.553	11.1	.00242	.000	1
CalStd5=10	10.000	10.869	.869	8.69	.00454	.000	1
CalStd8=100	100.00	104.26	4.26	4.26	.04171	.000	1
CalStd9=100	1000.0	1042.7	42.7	4.27	.41523	.001	1
CalStd10=10	10000.	9951.4	-48.6	-.486	3.9611	.070	1

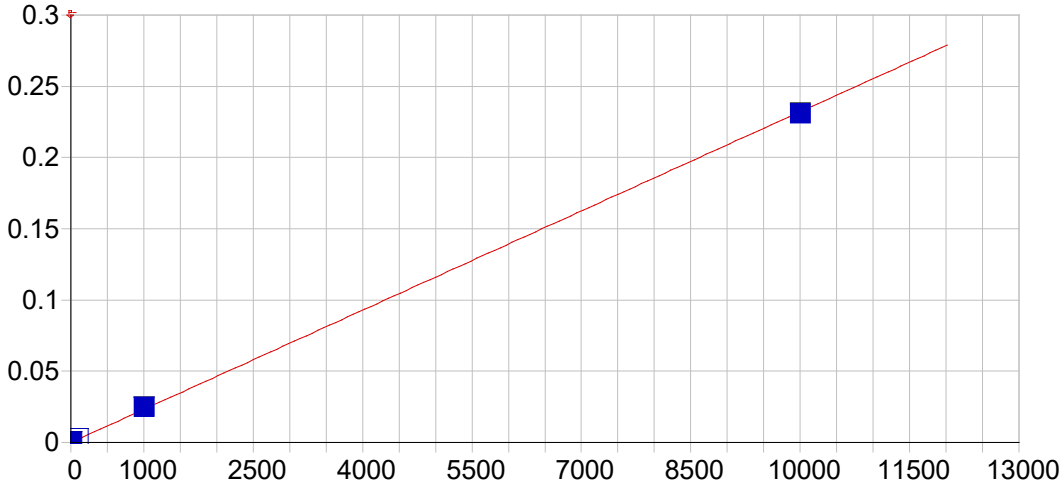


Sr 421.552 { 80}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000503	Re-Slope:	1.000000
A1 (Gain):	0.000251	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.183953		
Predicted MQL:	0.613175		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00046	-.000	.000	-.00050	.000	1
CalStd3=1	1.0000	1.2583	.258	25.8	-.00019	.000	1
CalStd4=5	5.0000	5.2703	.270	5.41	.00082	.000	1
CalStd5=10	10.000	10.779	.779	7.79	.00221	.000	1
CalStd8=100	100.00	103.35	3.35	3.35	.02546	.000	1
CalStd9=100	1000.0	1044.5	44.5	4.45	.26193	.001	1
CalStd10=10	10000.	9950.8	-49.2	-.492	2.4997	.032	1

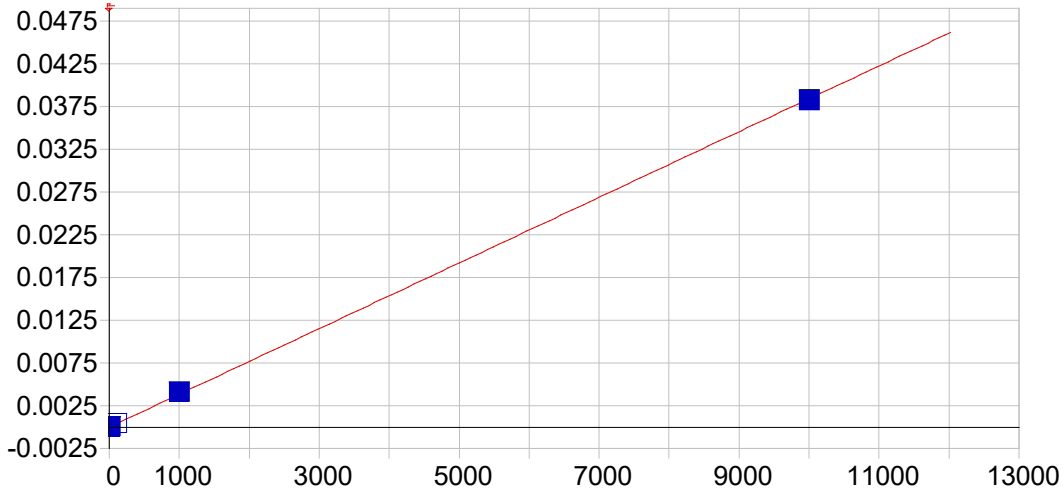


Sn 189.989 {477}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.687465		
Predicted MQL:	2.291551		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00337	-.003	.000	.00001	.000	1
CalStd10=10	10000.	9931.2	-68.8	-.688	.23053	.000	1
CalStd9=100	1000.0	1058.8	58.8	5.88	.02459	.000	1
CalStd8=100	100.00	107.95	7.95	7.95	.00252	.000	1
CalStd5=10	10.000	12.054	2.05	20.5	.00029	.000	1

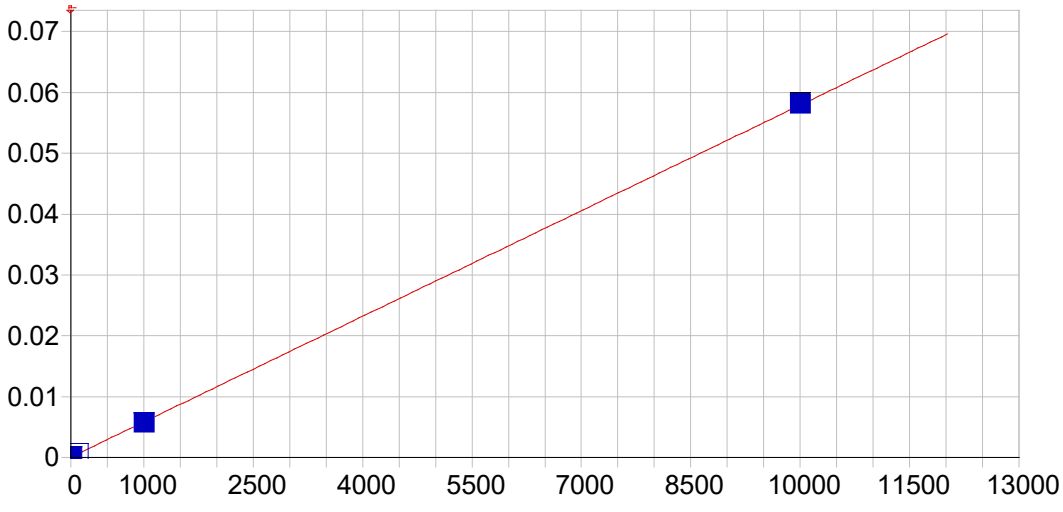


Sn 189.989 {478}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999773	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.556529		
Predicted MQL:	8.521762		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00401	-.004	.000	-.00001	.000	1
CalStd10=10	10000.	9933.9	-66.1	-.661	.03816	.000	1
CalStd9=100	1000.0	1052.4	52.4	5.24	.00404	.000	1
CalStd8=100	100.00	111.28	11.3	11.3	.00042	.000	1
CalStd5=10	10.000	12.423	2.42	24.2	.00004	.000	1

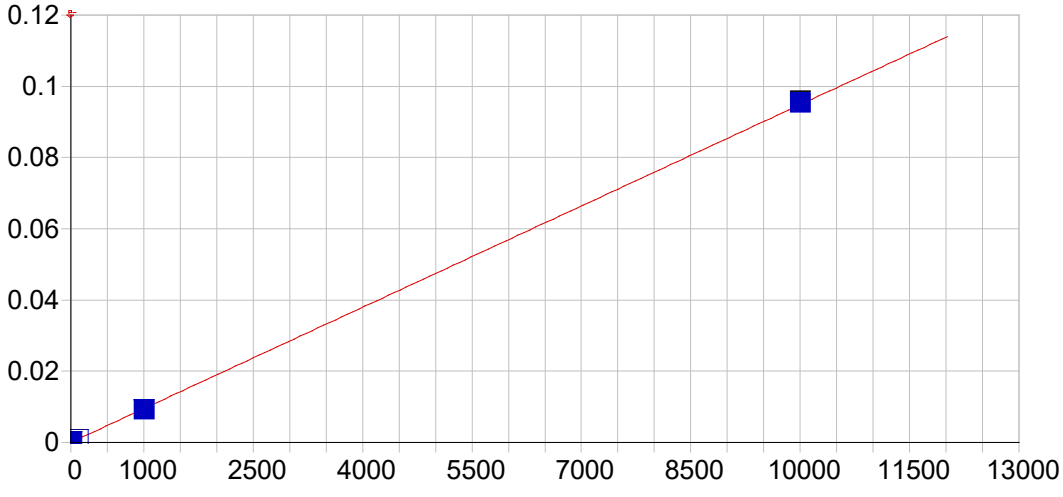


B 249.678 {135}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000047	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.877224		
Predicted MQL:	2.924079		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00035	.000	.000	.00005	.000	1
CalStd8=100	100.00	97.214	-2.79	-2.79	.00061	.000	1
CalStd5=10	10.000	10.152	.152	1.52	.00011	.000	1
CalStd9=100	1000.0	974.71	-25.3	-2.53	.00569	.000	1
CalStd10=10	10000.	10028.	27.9	.279	.05808	.000	1

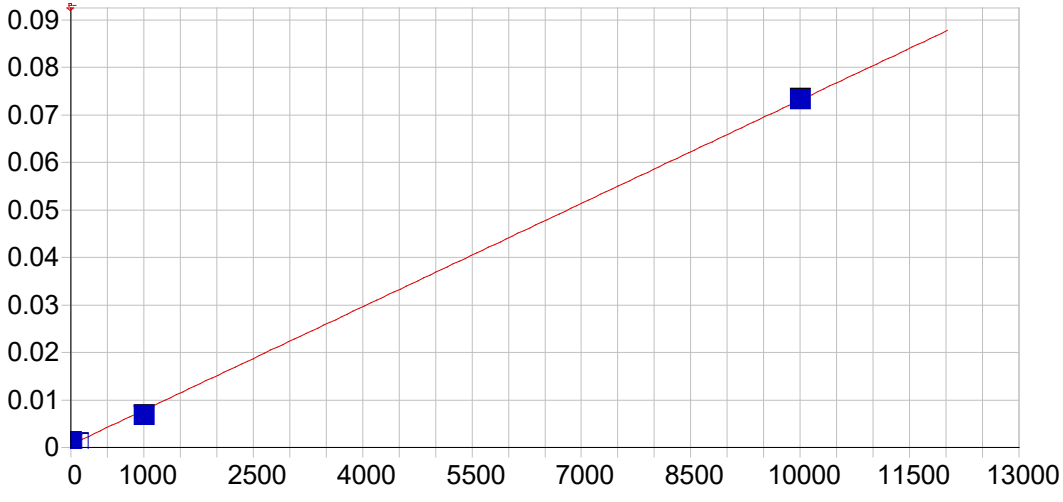


B 249.773 {135}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.378116		
Predicted MQL:	1.260387		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00080	.001	.000	.00002	.000	1
CalStd8=100	100.00	95.244	-4.76	-4.76	.00093	.000	1
CalStd5=10	10.000	10.004	.004	.041	.00012	.000	1
CalStd9=100	1000.0	962.74	-37.3	-3.73	.00916	.000	1
CalStd10=10	10000.	10042.	42.0	.420	.09532	.000	1

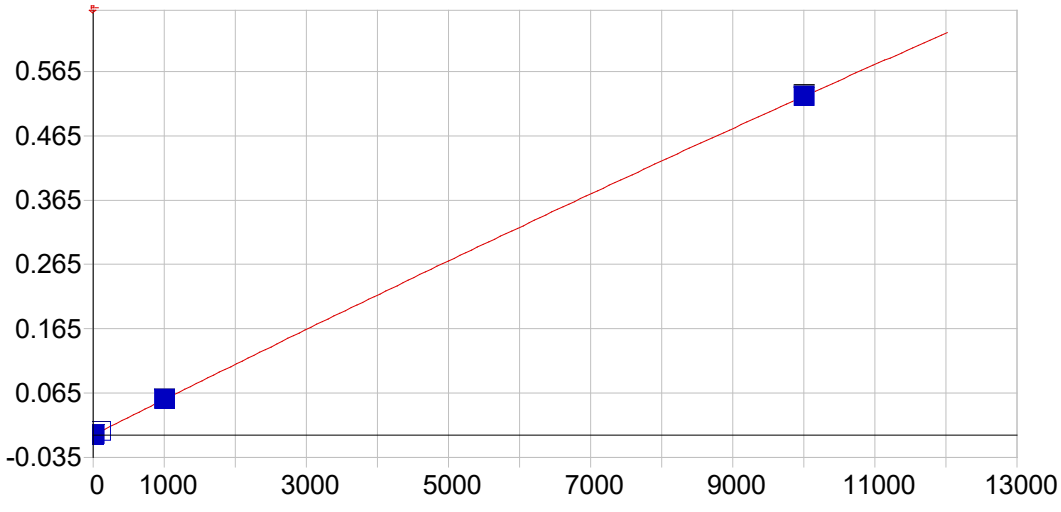


Li 610.353 { 55}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000590	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999740	Status:	OK.
Std Error of Est:	0.000614		
Predicted MDL:	18.724895		
Predicted MQL:	62.416318		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	76.344	76.3	.000	.00114	.000	1
CalStd5=10	10.000	10.745	.745	7.45	.00067	.000	1
CalStd8=100	100.00	50.380	-49.6	-49.6	.00096	.000	1
CalStd9=100	1000.0	835.71	-164.	-16.4	.00665	.000	1
CalStd10=10	10000.	10015.	14.6	.146	.07323	.000	1

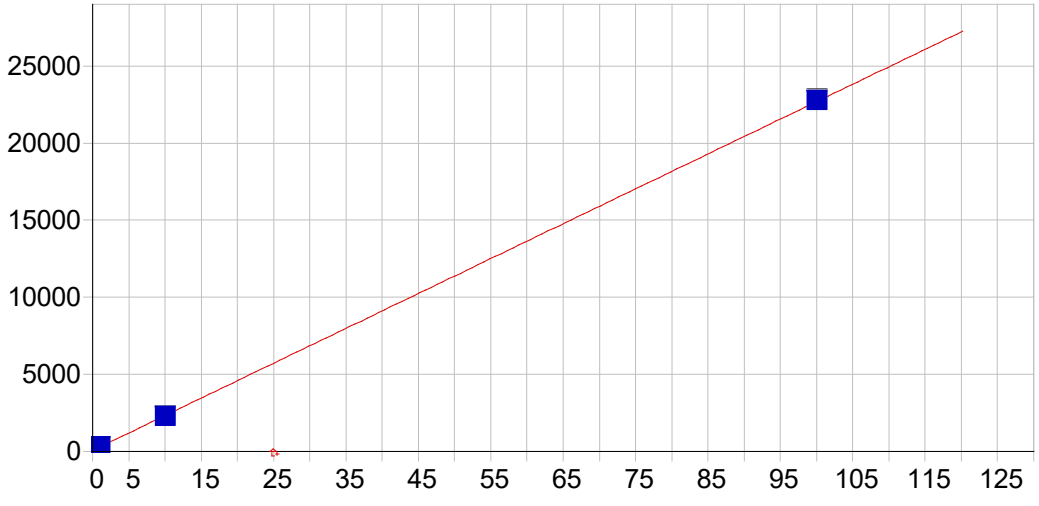


Li 670.776 { 50}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000354	Re-Slope:	1.000000
A1 (Gain):	0.000056	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	1.687579		
Predicted MQL:	5.625263		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00127	-.001	.000	-.00035	.000	1
CalStd5=10	10.000	11.127	1.13	11.3	.00027	.000	1
CalStd8=100	100.00	101.73	1.73	1.73	.00530	.000	1
CalStd9=100	1000.0	996.81	-3.19	-.319	.05482	.000	1
CalStd10=10	10000.	10000.	.333	.003	.52634	.002	1

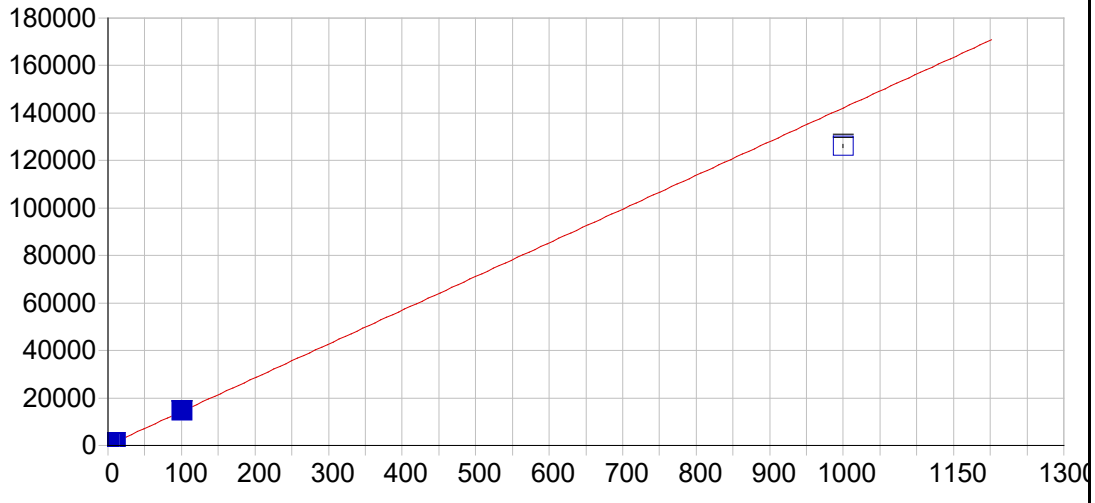


K 766.490 { 44}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	66.703592	Re-Slope:	1.000000
A1 (Gain):	226.181545	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	1.149390		
Predicted MDL:	0.033733		
Predicted MQL:	0.112443		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00009	.000	.000	66.725	1.72	1
CalStd9=100	1.0000	.93053	-.069	-6.95	277.34	6.86	1
CalStd10=10	10.000	9.7358	-.264	-2.64	2270.4	19.9	1
CalStd13=10	100.00	100.33	.334	.334	22777.	68.1	1

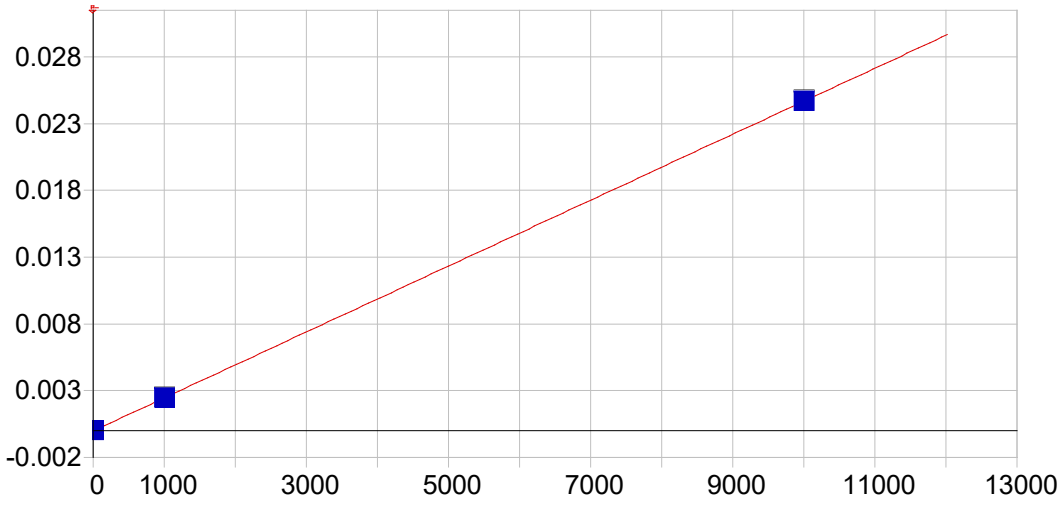


K 769.896 { 44}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear
Weighting:	1/Var		

A0 (Offset):	60.280538	Re-Slope:	1.000000
A1 (Gain):	142.123829	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999228	Status:	OK.
Std Error of Est:	59.605657		
Predicted MDL:	0.050094		
Predicted MQL:	0.166979		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.04464	-.045	.000	53.936	3.84	1
CalStd10=10	10.000	9.8843	-.116	-1.16	1465.4	9.67	1
CalibStd15=	1000.0	886.74	-113.	-11.3	126090.	676.	1
CalStd13=10	100.00	101.43	1.43	1.43	14479.	23.5	1
CalStd9=100	1.0000	1.0087	.009	.866	203.67	2.12	1

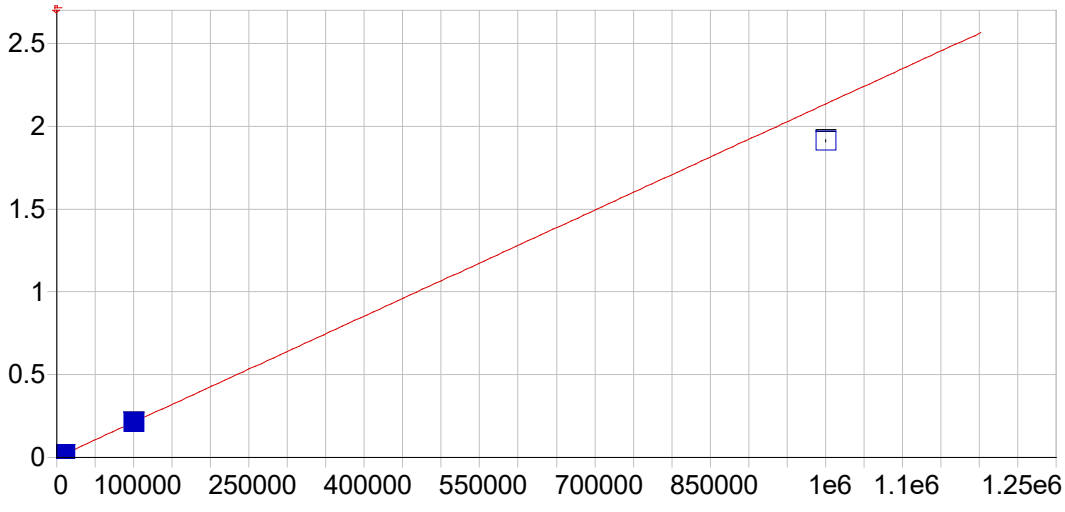


P 177.495 {489}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.713054		
Predicted MQL:	12.376847		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	-.000	.000	-.00001	.000	1
CalStd10=10	10000.	9999.9	-.067	-.001	.02469	.000	1
CalStd9=100	1000.0	1000.1	.067	.007	.00246	.000	1

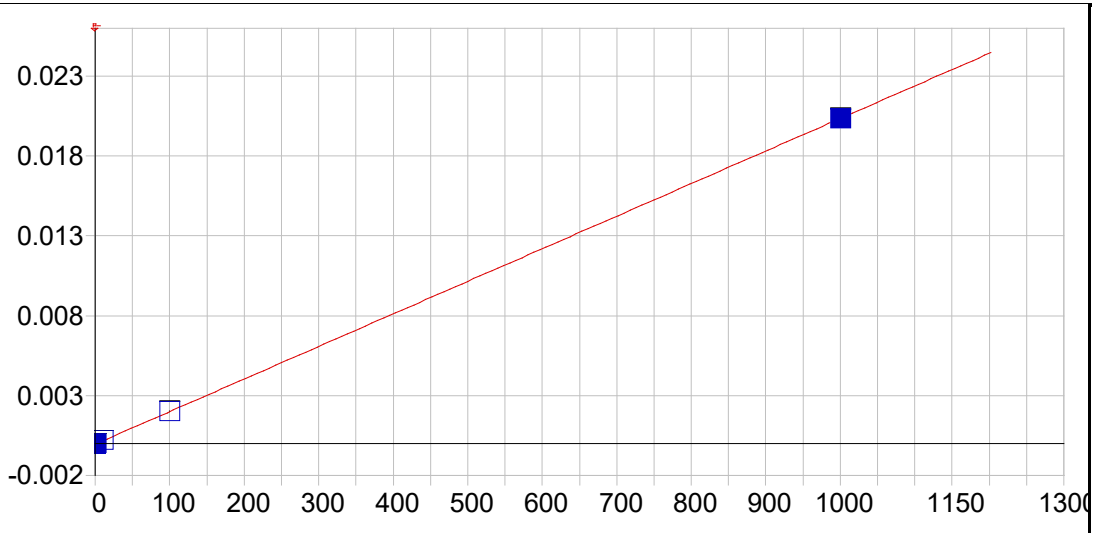


S 182.034 {485}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000027	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	5.399037		
Predicted MQL:	17.996791		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04765	.048	.000	.00003	.000	1
CalStd9=100	1000.0	973.04	-27.0	-2.70	.00211	.000	1
CalStd10=10	10000.	9752.8	-247.	-2.47	.02088	.000	1
CalibStd15=	1000000.	895710.	-104000.	-10.4	1.9113	.005	1
CalStd13=10	100000.	99248.	-752.	-.752	.21181	.001	1

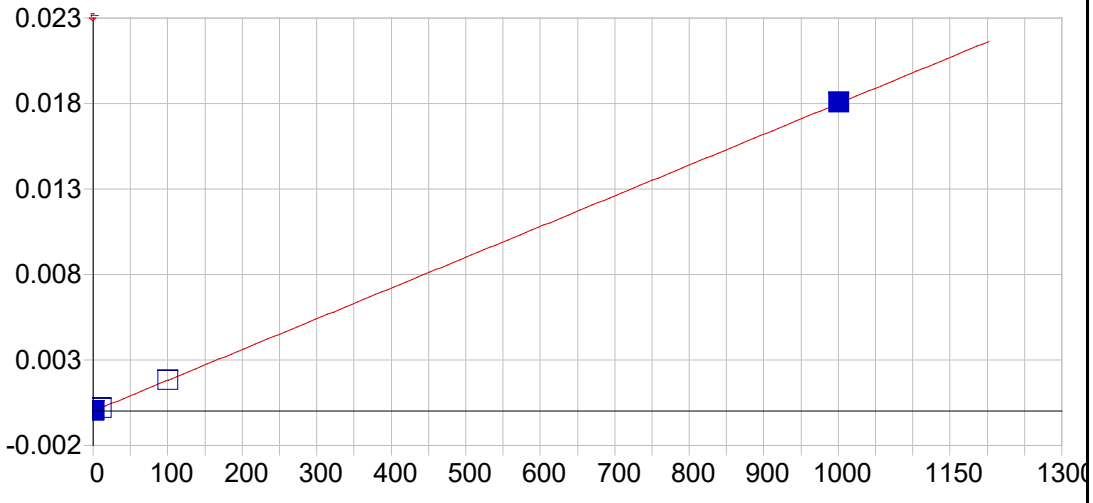


Hg 184.950 {482}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000041	Re-Slope:	1.000000
A1 (Gain):	0.000020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999786	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.650356		
Predicted MQL:	2.167852		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00071	-.001	.000	-.00004	.000	1
CalStd9=100	1000.0	998.44	-1.56	-.156	.02032	.000	1
CalStd3=1	1.0000	1.6248	.625	62.5	-.00001	.000	1
CalStd5=10	10.000	10.902	.902	9.02	.00018	.000	1
CalStd8=100	100.00	100.03	.032	.032	.00200	.000	1

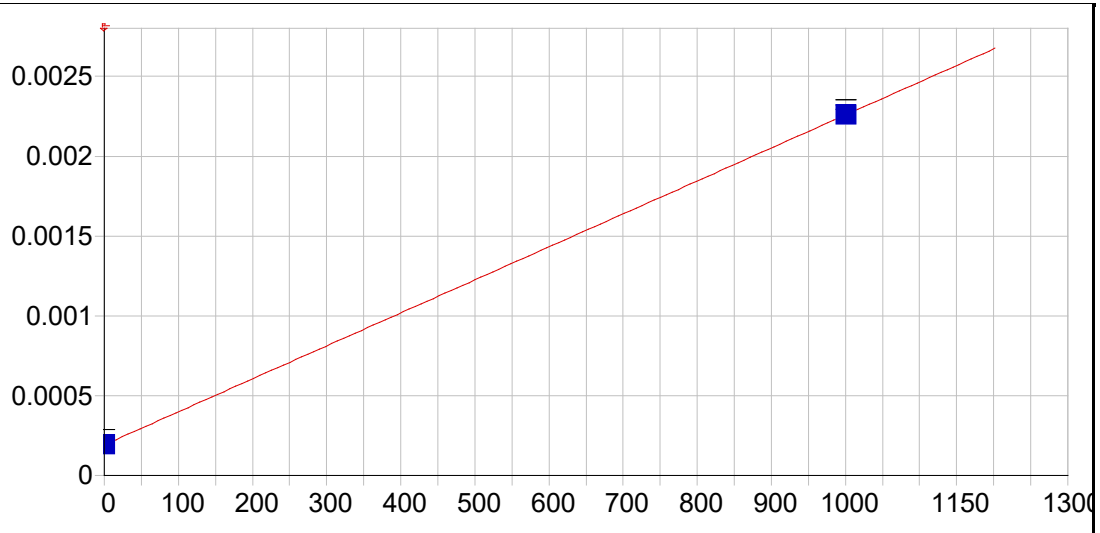


Hg 194.227 {473}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000018	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999569	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.869789		
Predicted MQL:	2.899296		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00102	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1002.1	2.12	.212	.01804	.000	1
CalStd3=1	1.0000	.07452	-.925	-92.5	.00001	.000	1
CalStd5=10	10.000	9.0187	-.981	-9.81	.00017	.000	1
CalStd8=100	100.00	99.783	-.217	-.217	.00181	.000	1



Ce 404.076 { 83}

Date of Fit:	07/20/2023 07:49:39	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000192	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	19.907303		
Predicted MQL:	66.357677		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00019	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00226	.000	1

Sample Name: Blank Acquired: 07/19/2023 07:11:34 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca3158	Ca3968	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.030**	**.000**	**.000**	**.000**	**.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	8.61	12.5	14.9	35.1	38.4	259.	.541	11.0	54.7	36.9	28.7	128.	32.8

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Cu3247	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	135.	15.5	431.	226.	167.	12.0	6.87	419.	139.	42.7	4.79	19.2	46.8

Elem	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**.000**	**-.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	307.	152.	210.	37.0	96.0	67.5	79.5	60.8	102.	69.8	75.1	26.6	40.2

Elem	Zn2062	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.784**	**.000**	**2820.**	**-2.17**	**.000**	**.001**	**.000**	**.000**	**.000**	**-.000**	**53.9**	**.000**
Stddev	.000	.632	.000	25.	3.03	.000	.000	.000	.000	.000	.000	3.8	.000
%RSD	278.	80.5	127.	.882	140.	18.6	3.87	19.3	86.4	9.54	29.7	7.11	24.1

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46935.**	**650960.**	**101290.**
Stddev	102.	2652.	529.
%RSD	.21646	.40735	.52266

Sample Name: CalStd2=0.5 Acquired: 07/19/2023 07:18:55 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be3130	Be3131	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	3.66	26.0	25.2	29.7

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46255.**	**636450.**	**99695.**
Stddev	94.	6406.	522.
%RSD	.20238	1.0065	.52310

Sample Name: CalStd3=1 Acquired: 07/19/2023 07:26:15 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be3130	Be3131	Cd2265	Cd2288	Co2286	Cr2055	Ni2316	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.79	14.9	1.20	13.0	14.5	19.8	11.7	17.8	20.0	4.11

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46586.**	**629730.**	**99385.**
Stddev	210.	1577.	433.
%RSD	.45081	.25043	.43616

Sample Name: CalStd4=5 Acquired: 07/19/2023 07:33:35 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Be3130	Be3131	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.000**	**.001**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.20	.886	2.61	3.50	4.33	4.73	9.39	2.45	1.21	5.43	7.58	3.66	10.8

Elem	Sb2175	Ti3234	Sr4077
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.002**
Stddev	.000	.000	.000
%RSD	21.4	1.76	1.28

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46740.**	**626650.**	**100490.**
Stddev	72.	3719.	399.
%RSD	.15429	.59347	.39722

Sample Name: CalStd5=10 Acquired: 07/19/2023 07:40:56 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**.000**	**.003**	**.001**	**.002**	**.000**	**.001**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.93	4.22	31.5	65.5	3.04	.704	1.01	.563	2.14	.526	1.52	5.14	5.73

Elem	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Ti3234
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**86.5**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.2	.000
%RSD	.912	.913	5.10	1.57	8.25	16.5	12.5	103.	15.4	3.94	.816	1.37	2.42

Elem	Sr4077	Sn1899	B_2496	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.005**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	.524	2.09	5.04	12.8

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46770.**	**622320.**	**100900.**
Stddev	29.	3410.	87.
%RSD	.06258	.54792	.08589

Sample Name: CalStd6=20 Acquired: 07/19/2023 07:48:16 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.001**	**.001**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	2.31	.857	.550	4.57	5.05	1.54

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46845.**	**620500.**	**100430.**
Stddev	150.	4910.	253.
%RSD	.31926	.79135	.25227

Sample Name: CalStd7=50 Acquired: 07/19/2023 07:55:34 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.011**	**.002**	**.007**	**.003**	**.001**	**.003**	**.002**	**.001**	**.005**	**.000**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.03	20.3	.379	1.08	.355	.630	1.67	.704	1.15	1.82	.368	3.38	1.06

Elem	Ti3234
Units	Cts/S
Avg	**.003**
Stddev	.000
%RSD	1.51

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46853.**	**620170.**	**100900.**
Stddev	73.	4888.	124.
%RSD	.15604	.78812	.12273

Sample Name: CalStd8=100 Acquired: 07/19/2023 08:02:42 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.005**	**.001**	**.001**	**.000**	**.004**	**.042**	**.027**	**.006**	**.028**	**.022**	**.003**	**.014**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.935	.787	3.04	6.63	.228	.059	.718	.353	.224	.152	.482	.473	.462

Elem	Cr2055	Cr2677	Cu2230	Cu3247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.006**	**.001**	**.003**	**.001**	**.020**	**.006**	**.005**	**.002**	**.007**	**.011**	**.001**	**.002**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.518	.758	1.42	2.08	.590	.603	.235	.766	.319	.407	2.64	1.39	1.36

Elem	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Ti3234	Sr4077	Sn1899	B_2496	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.001**	**.000**	**.002**	**.011**	**807.**	**.005**	**.042**	**.003**	**.001**	**.005**
Stddev	.000	.000	.000	.000	.000	.000	2.	.000	.000	.000	.000	.000
%RSD	3.71	21.7	.870	3.06	.867	.131	.222	.751	.302	1.09	1.43	1.94

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47045.**	**621200.**	**101330.**
Stddev	121.	2921.	178.
%RSD	.25639	.47024	.17572

Sample Name: CalStd9=1000 Acquired: 07/19/2023 08:09:42 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Be3130	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.011**	**.006**	**.006**	**.002**	**.042**	**.272**	**.065**	**.002**	**.245**	**.215**	**.031**	**.137**	**.008**
Stddev	.000	.000	.000	.000	.000	.003	.000	.000	.000	.000	.000	.000	.000
%RSD	.348	.497	.496	.462	.226	.924	.341	.561	.134	.087	.110	.143	.652

Elem	Cr2055	Cr2677	Cu2230	Cu3247	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.058**	**.010**	**.027**	**.011**	**.002**	**.003**	**.009**	**.000**	**.190**	**.061**	**.035**	**.048**	**.024**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000
%RSD	.185	.653	.131	.431	.678	.170	.364	2.36	.573	.600	.315	.092	.211

Elem	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.075**	**.107**	**.007**	**.022**	**.007**	**.006**	**.004**	**.001**	**.011**	**.004**	**.019**	**.106**	**8120.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	5.
%RSD	.122	.077	.466	.024	.361	.266	.385	1.69	.286	.915	.701	.165	.065

Elem	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4500.**	**1200.**	**.002**	**.038**	**.415**	**.025**	**.006**	**.055**	**204.**	**.002**
Stddev	20.	7.	.000	.000	.001	.000	.000	.000	2.	.000
%RSD	.438	.590	.478	.245	.262	.192	.347	.315	1.04	.927

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47581.**	**621560.**	**102220.**
Stddev	83.	3086.	234.
%RSD	.17397	.49645	.22902

Sample Name: CalStd10=10000 Acquired: 07/19/2023 08:16:23 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cu2230	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.056**	**.020**	**.392**	**1.10**	**.020**	**2.30**	**1.30**	**.082**	**.551**	**.257**	**.101**
Stddev	.000	.000	.001	.01	.000	.02	.00	.000	.001	.001	.000
%RSD	.322	.245	.212	.580	.300	.924	.246	.385	.112	.258	.251

Elem	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.017**	**.027**	**.084**	**.003**	**1.74**	**.590**	**.328**	**.455**	**.230**	**.702**	**1.01**
Stddev	.000	.000	.000	.000	.02	.007	.001	.001	.000	.001	.00
%RSD	.444	.352	.262	.842	1.10	1.17	.280	.153	.168	.138	.165

Elem	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Na5889	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.060**	**.071**	**.059**	**.041**	**.010**	**.100**	**.036**	**.197**	**1.01**	**21800.**	**11600.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.00	48.	9.
%RSD	.329	.203	.368	.259	.419	.164	.854	.472	.142	.221	.076

Elem	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.025**	**.356**	**3.96**	**.231**	**.058**	**.526**	**1470.**	**.021**
Stddev	.000	.001	.07	.000	.000	.002	10.	.000
%RSD	.334	.229	1.77	.217	.452	.342	.660	.159

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**45987.**	**569460.**	**101790.**
Stddev	48.	2863.	371.
%RSD	.10357	.50269	.36435

Sample Name: CalStd12=100K Acquired: 07/19/2023 08:24:05 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cr2055	Cu3247	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.23**	**1.03**	**3.31**	**.631**	**9.13**
Stddev	.01	.00	.03	.002	.04
%RSD	.292	.193	.788	.386	.392

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**45783.**	**611850.**	**101480.**
Stddev	115.	2268.	201.
%RSD	.25064	.37073	.19849

Sample Name: CalStd13=100000 Acquired: 07/19/2023 08:32:12 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790	Na3302	Na5889	Na5895	Si2516	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.211**	**.162**	**.283**	**.866**	**.032**	**.003**	**194000.**	**117000.**	**.230**	**14500.**
Stddev	.001	.001	.001	.002	.000	.000	1010.	492.	.000	24.
%RSD	.384	.925	.202	.287	.508	.750	.519	.419	.124	.162

Elem	S_1820
Units	Cts/S
Avg	**.212**
Stddev	.001
%RSD	.284

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**44388.**	**577610.**	**101040.**
Stddev	94.	3666.	424.
%RSD	.21183	.63477	.41916

Sample Name: CalStd14=500000 Acquired: 07/19/2023 08:39:31 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.76**	**.961**	**1.26**	**3.84**	**.014**
Stddev	.04	.002	.00	.02	.000
%RSD	1.59	.199	.078	.581	.263

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**40424.**	**97531.**
Stddev	108.	265.
%RSD	.26596	.27177

Sample Name: CalibStd15=1000k Acquired: 07/19/2023 08:47:49 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790	Na3302	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.63**	**1.86**	**2.32**	**7.14**	**.294**	**.027**	**126000.**	**1.91**
Stddev	.04	.00	.01	.02	.001	.000	676.	.01
%RSD	.806	.213	.468	.308	.382	.283	.536	.274

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**37406.**	**95304.**
Stddev	129.	164.
%RSD	.34367	.17191

Sample Name: Ag 1000 Ba 20000 Acquired: 07/19/2023 08:56:01 Type: Cal
Method: DOD Calibration Updated 060614(v5754) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba4934
Units	Cts/S	Cts/S
Avg	**.052**	**2.18**
Stddev	.000	.01
%RSD	.265	.465

Int. Std.	Y_3242	Y_3710
Units	Cts/S	Cts/S
Avg	**620670.**	**104100.**
Stddev	4124.	183.
%RSD	.66444	.17599

Sample Name: icv Acquired: 07/19/2023 09:18:00 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca3158	Ca3968	Cd2265	Cd2288
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.5**	**11800.**	**2070.**	**2140.**	**1900.**	**1870.**	**51.2**	**52.4**	**10800.**	**10300.**	**49.9**	**53.9**
Stddev	.7	19.	7.	6.	9.	7.	.4	.2	39.	142.	.2	.7
%RSD	1.36	.162	.338	.271	.485	.358	.776	.463	.358	1.37	.405	1.24
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Co2286	Cr2055	Cr2677	Cu2230	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Ni2216
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**513.**	**214.**	**210.**	**243.**	**5250.**	**5360.**	**10300.**	**9570.**	**512.**	**507.**	**521.**	**524.**
Stddev	2.	1.	2.	2.	40.	20.	72.	79.	4.	1.	2.	1.
%RSD	.310	.652	.720	.653	.769	.380	.700	.822	.746	.189	.391	.232
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Ni2316	Pb2203	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Na3302	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**521.**	**465.**	**512.**	**2070.**	**2070.**	**2020.**	**535.**	**509.**	**533.**	**510.**	**99.6**	**97.4**
Stddev	1.	2.	4.	10.	6.	7.	5.	4.	1.	2.	1.0	.3
%RSD	.250	.396	.785	.492	.284	.327	.977	.706	.136	.389	1.04	.262
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Sample Name: icv Acquired: 07/19/2023 09:18:00 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**98.9**	**505.**	**506.**	**495.**	**494.**	**491.**	**487.**	**99.6**	**99000.**
Stddev	.2	4.	1.	2.	1.	3.	1.	.2	349.
%RSD	.184	.782	.191	.318	.258	.705	.123	.192	.353
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**45888.**	**588950.**	**102500.**
Stddev	112.	4312.	298.
%RSD	.24393	.73208	.29085

Sample Name: ICVLL Acquired: 07/19/2023 09:25:03 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **40.6**	**1240.**	**1220.**	**63.4**	**33.6**	**12.5**	**12.9**	**1640.**	**1630.**	**15.4**	**31.8**	**32.1**	**32.0**
Stddev	.2	4.	11.	1.4	.4	.0	.2	9.	5.	.1	.2	.1	.6
%RSD	.458	.309	.893	2.16	1.06	.243	1.84	.538	.314	.876	.495	.439	1.73
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	30.0												
Range	30.0%												

Elem	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1010.**	**1020.**	**1650.**	**1660.**	**31.8**	**31.6**	**32.6**	**30.2**	**63.2**	**61.8**	**66.1**	**31.3**	**31.4**
Stddev	3.	7.	14.	13.	.1	.3	.1	.8	3.4	2.2	1.0	.3	.0
%RSD	.320	.708	.878	.782	.272	1.08	.282	2.52	5.34	3.51	1.48	.881	.098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	S_1820
Units	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**5.97**	**6.18**	**305.**	**33.4**	**31.2**	**161.**	**58.7**	**61.9**	**3.52**	**951.**
Stddev	.03	.01	8.	.7	.1	1.	.9	1.7	.05	6.
%RSD	.446	.082	2.51	2.20	.334	.459	1.46	2.81	1.52	.667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Sample Name: ICVLL Acquired: 07/19/2023 09:25:03 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47157.**	**612900.**	**102340.**
Stddev	134.	1466.	199.
%RSD	.28472	.23920	.19465

Sample Name: icb Acquired: 07/19/2023 09:39:36 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.360**	**-1.39**	**-1.20**	**-.065**	**-.048**	**.480**	**.543**	**.017**	**-.133**	**.186**	**.991**	**1.92**	**.263**
Stddev	.573	.20	2.12	.497	.013	.226	.149	.056	.171	.058	.466	.19	.024
%RSD	159.	14.1	177.	761.	26.1	47.2	27.4	340.	128.	31.3	47.0	9.90	8.98
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**.020**	**-1.07**	**.027**	**1.08**	**.310**	**-.373**	**-1.09**	**.160**	**.079**	**-.160**	**.031**	**-1.56**	**.676**
Stddev	.041	.34	.108	1.58	3.46	2.61	.92	.611	.110	.012	.005	3.43	.473
%RSD	208.	32.3	395.	146.	1120.	701.	84.6	382.	139.	7.38	16.7	219.	70.0
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**-.180**	**.627**	**-1.32**	**-1.33**	**.261**	**14.8**
Stddev	.064	.357	.12	1.49	.024	3.3
%RSD	35.8	57.0	9.26	112.	9.21	22.3
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: icb Acquired: 07/19/2023 09:39:36 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47816.**	**613980.**	**103420.**
Stddev	75.	2311.	313.
%RSD	.15631	.37634	.30238

Sample Name: MRL/LLOQ Acquired: 07/19/2023 09:46:55 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**12.7**	**407.**	**18.7**	**10.8**	**3.99**	**4.34**	**516.**	**4.99**	**10.3**	**10.2**	**10.1**	**322.**	**312.**
Stddev	.3	1.	4.2	.4	.02	.19	1.	.09	.2	.4	1.3	1.	4.
%RSD	2.58	.201	22.6	3.92	.408	4.48	.157	1.79	1.79	4.32	12.8	.392	1.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**536.**	**10.2**	**9.27**	**10.4**	**10.4**	**21.9**	**19.4**	**21.7**	**10.1**	**10.2**	**1.83**	**2.00**	**93.8**
Stddev	2.	.0	.47	.2	.4	3.1	1.2	2.1	.4	.1	.01	.01	4.4
%RSD	.352	.332	5.08	2.36	3.59	14.2	6.40	9.77	4.40	.627	.503	.604	4.73
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**11.8**	**9.99**	**53.1**	**19.0**	**20.0**	**1.25**	**307.**
Stddev	1.4	.10	.5	.6	1.3	.02	4.
%RSD	11.4	.957	.852	3.37	6.68	1.43	1.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: MRL/LLOQ Acquired: 07/19/2023 09:46:55 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47072.**	**613760.**	**101500.**
Stddev	74.	1658.	320.
%RSD	.15677	.27015	.31513

Sample Name: ICSA Acquired: 07/19/2023 09:54:11 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.646**	**503000.**	**-.352**	**-.000**	**.057**	**.000**	**523000.**	**-.019**	**-.440**	**-.446**	**.016**
Stddev	.499	4090.	6.07	.345	.024	.072	786.	.257	.673	.407	1.52
%RSD	77.2	.813	1730.	189000.	42.0	113000.	.150	1360.	153.	91.4	9790.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**499000.**	**451000.**	**525000.**	**.138**	**-1.73**	**-.459**	**.000**	**-.001**	**.406**	**3.34**	**10700.**
Stddev	1070.	3950.	1220.	.062	.64	.144	4.31	3.90	4.03	3.49	17.
%RSD	.215	.875	.233	44.5	37.0	31.3	1970000.	297000.	991.	105.	.158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**-.001**	**.000**	**.034**	**2.53**	**2.00**	**-.500**	**1.20**	**1.60**	**7.63**	**.054**	**85.6**
Stddev	.226	.010	.007	3.72	.54	.117	.69	1.07	1.18	.046	9.0
%RSD	16600.	12300.	20.3	147.	26.7	23.3	57.2	66.9	15.5	85.2	10.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Sample Name: ICSA Acquired: 07/19/2023 09:54:11 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**41940.**	**547440.**	**98457.**
Stddev	113.	2407.	432.
%RSD	.26847	.43964	.43900

Sample Name: ICSAB Acquired: 07/19/2023 10:02:04 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3130	Be3131	Ca3158	Cd2288	Co2286	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**563.**	**448000.**	**514.**	**541.**	**529.**	**504.**	**495.**	**466000.**	**503.**	**474.**	**510.**
Stddev	3.	1390.	3.	6.	3.	2.	3.	1150.	1.	1.	3.
%RSD	.532	.311	.542	1.11	.621	.491	.590	.246	.174	.153	.533
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Cr2677	Cu2230	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**496.**	**507.**	**500000.**	**455000.**	**466000.**	**492.**	**557.**	**491.**	**486.**	**474.**	**431.**
Stddev	4.	2.	875.	2510.	1370.	2.	3.	2.	1.	1.	1.
%RSD	.712	.462	.175	.551	.294	.450	.453	.335	.153	.130	.310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**491.**	**498.**	**456.**	**559.**	**441.**	**103.**	**96.1**	**97.9**	**10100.**	**519.**	**511.**
Stddev	2.	5.	4.	3.	1.	1.	.3	.3	35.	2.	1.
%RSD	.324	1.01	.925	.523	.131	.713	.284	.290	.346	.441	.122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Sample Name: ICSAB Acquired: 07/19/2023 10:02:04 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**471.**	**476.**	**530.**	**101.**	**98100.**
Stddev	2.	3.	3.	.	159.
%RSD	.431	.657	.635	.406	.162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**41952.**	**543530.**	**98499.**
Stddev	81.	2367.	347.
%RSD	.19222	.43542	.35181

Sample Name: ICVLL AG Acquired: 07/19/2023 10:16:45 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**11.2**	**2.84**	**-1.71**	**-.048**	**-.038**	**.020**	**20.7**	**-.017**	**.053**	**.296**	**.485**	**40.7**	**3.46**
Stddev	.4	.38	2.44	.188	.015	.251	.4	.051	.119	.218	1.47	7.5	.10
%RSD	3.46	13.4	143.	392.	41.0	1240.	1.70	294.	227.	73.8	303.	18.4	2.75

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**.180**	**-.709**	**-.067**	**1.22**	**.601**	**-2.05**	**-1.44**	**.276**	**.383**	**-.138**	**.026**	**-10.6**	**1.07**
Stddev	.026	.158	.167	.60	1.64	3.91	1.08	.388	.100	.006	.005	6.2	.52
%RSD	14.7	22.2	249.	49.4	273.	190.	75.0	140.	26.2	4.48	19.7	59.0	48.2

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**-.128**	**1.29**	**-.854**	**-.430**	**.217**	**20.6**
Stddev	.083	.46	.537	1.23	.049	2.5
%RSD	64.5	35.5	62.9	286.	22.4	12.1

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46947.**	**613730.**	**101870.**
Stddev	17.	3041.	505.
%RSD	.03702	.49549	.49530

Sample Name: ccv1 Acquired: 07/19/2023 13:03:50 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca3158	Ca3968	Cd2288	Co2388	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **292.**	**4830.**	**4980.**	**5000.**	**4860.**	**492.**	**506.**	**5130.**	**4980.**	**488.**	**4840.**	**5060.**
Stddev	1.	19.	9.	17.	17.	3.	1.	16.	32.	1.	24.	8.
%RSD	.487	.400	.188	.346	.340	.566	.179	.316	.649	.150	.492	.155
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	500.											
Range	-10.4%											

Elem	Cu2230	Cu3247	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4750.**	**4890.**	**5170.**	**5080.**	**4990.**	**5050.**	**4900.**	**4770.**	**4780.**	**4860.**	**4920.**	**4900.**
Stddev	13.	14.	27.	16.	18.	28.	25.	8.	5.	7.	4.	5.
%RSD	.263	.279	.512	.316	.355	.544	.514	.159	.096	.149	.074	.103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Pb2169	Sb2068	Se2062	Tl1908	V_2908	Zn2062	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**4690.**	**4860.**	**5000.**	**4920.**	**5100.**	**4900.**	**45.9**	**48.7**	**48.9**	**5230.**	**4920.**	**4840.**
Stddev	10.	15.	40.	3.	30.	2.	.6	.1	.2	19.	11.	17.
%RSD	.219	.313	.808	.058	.584	.048	1.27	.289	.344	.353	.231	.352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Sample Name: ccv1 Acquired: 07/19/2023 13:03:50 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**4820.**	**4820.**	**4910.**	**48.9**	**49200.**
Stddev	10.	28.	25.	.1	80.
%RSD	.212	.571	.499	.271	.162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46212.**	**577670.**	**102010.**
Stddev	31.	2748.	261.
%RSD	.06738	.47570	.25562

Sample Name: ccv2 Acquired: 07/19/2023 13:10:33 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**51.0**	**519.**	**484.**	**503.**	**534.**	**47.5**	**51.1**	**529.**	**48.6**	**49.5**	**502.**	**526.**	**512.**
Stddev	.4	1.	3.	4.	1.	.4	.4	1.	.2	.7	1.	1.	4.
%RSD	.825	.286	.696	.737	.119	.945	.718	.169	.349	1.37	.157	.192	.815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Cu2230	Fe2343	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**503.**	**531.**	**523.**	**530.**	**501.**	**499.**	**493.**	**516.**	**516.**	**478.**	**495.**	**502.**	**542.**
Stddev	2.	5.	2.	5.	5.	1.	1.	.	1.	2.	4.	6.	2.
%RSD	.458	.873	.306	.945	.997	.201	.282	.073	.166	.455	.734	1.19	.399
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	V_2908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**521.**	**487.**	**502.**	**498.**	**4.88**	**5.02**	**510.**	**510.**	**497.**	**504.**	**478.**	**500.**	**5.03**
Stddev	5.	5.	1.	2.	.01	.01	4.	1.	1.	2.	5.	1.	.03
%RSD	.916	1.05	.293	.318	.209	.307	.872	.244	.214	.406	1.13	.168	.614
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Sample Name: ccv2 Acquired: 07/19/2023 13:10:33 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	S_1820
Units	ug/L
Avg	**4840.**
Stddev	18.
%RSD	.365

Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47514.**	**616790.**	**102590.**
Stddev	109.	5610.	182.
%RSD	.23040	.90961	.17710

Sample Name: ccb Acquired: 07/19/2023 13:17:14 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.463**	**-1.04**	**-2.45**	**.083**	**-.040**	**.010**	**1.11**	**.017**	**-.002**	**-.287**	**.058**	**1.18**	**.628**
Stddev	.230	.11	.96	.283	.016	.216	.11	.056	.097	.090	.432	.36	.176
%RSD	49.7	10.9	39.1	342.	39.9	2060.	9.95	318.	6220.	31.5	751.	30.6	28.0
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**.082**	**-.352**	**.335**	**.648**	**3.15**	**.607**	**1.19**	**-.116**	**.332**	**-.217**	**.017**	**-6.53**	**1.13**
Stddev	.032	.202	.065	.666	.66	4.29	.60	.137	.093	.001	.003	2.12	.50
%RSD	39.8	57.2	19.3	103.	21.0	707.	50.6	117.	27.9	.523	20.1	32.5	43.7
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**.046**	**.120**	**.716**	**1.42**	**-.089**	**2.56**
Stddev	.101	.132	.267	1.24	.034	7.08
%RSD	221.	110.	37.3	87.1	38.6	277.
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: ccb Acquired: 07/19/2023 13:17:14 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**48031.**	**616450.**	**103930.**
Stddev	49.	3678.	478.
%RSD	.10120	.59665	.45995

Sample Name: lcsw130560 Acquired: 07/19/2023 13:24:33 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.7**	**774.**	**797.**	**818.**	**815.**	**19.9**	**20.1**	**196000.**	**18.4**	**189.**	**82.7**
Stddev	.3	5.	3.	12.	1.	.1	.1	232.	.1	.	.8
%RSD	1.76	.632	.438	1.44	.146	.630	.320	.119	.713	.219	.950

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**91.9**	**405.**	**399.**	**94600.**	**195.**	**2130.**	**2170.**	**194.**	**177.**	**199.**	**780.**
Stddev	.9	4.	2.	206.	2.	9.	8.	1.	3.	5.	6.
%RSD	1.02	1.07	.508	.218	.830	.441	.380	.671	1.69	2.43	.786

Elem	Tl1908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**757.**	**194.**	**188.**	**89.9**	**88.0**	**89.3**	**32.4**	**2.60**	**1910.**	**1.42**	**1830.**
Stddev	2.	1.	1.	.6	.5	.4	2.5	1.16	8.	.32	8.
%RSD	.268	.748	.291	.661	.580	.447	7.65	44.8	.395	22.4	.459

Elem	Li6707	K_7698	S_1820
Units	ug/L	mg/L	ug/L
Avg	**6.67**	**93.4**	**.892**
Stddev	2.28	.2	6.40
%RSD	34.3	.260	718.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**44049.**	**564250.**	**100280.**
Stddev	110.	3333.	334.
%RSD	.25049	.59066	.33304

Sample Name: mbw130560 Acquired: 07/19/2023 13:31:38 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.13**	**.726**	**-2.83**	**-.263**	**-.050**	**.126**	**13.4**	**-.011**	**-.041**	**-.206**	**1.35**	**3.67**	**3.23**
Stddev	.35	.182	2.64	.185	.009	.441	2.4	.052	.318	.026	1.07	.68	.16
%RSD	31.1	25.1	93.2	70.6	18.3	350.	17.8	477.	784.	12.5	79.6	18.5	4.81

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**.114**	**-.082**	**-.100**	**.826**	**2.42**	**-2.44**	**3.05**	**.470**	**.469**	**-.160**	**.055**	**9.28**	**1.64**
Stddev	.026	.004	.288	.777	2.24	4.30	1.52	.310	.160	.009	.003	3.52	.09
%RSD	22.9	5.11	287.	94.0	92.6	177.	49.7	65.9	34.1	5.44	5.55	38.0	5.18

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**.025**	**1.12**	**1.78**	**1.92**	**.149**	**6.21**
Stddev	.202	1.00	.82	.62	.039	4.53
%RSD	795.	89.3	46.0	32.4	26.3	72.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47629.**	**612480.**	**102200.**
Stddev	89.	5336.	167.
%RSD	.18641	.87128	.16367

Sample Name: 1348149 Acquired: 07/19/2023 13:38:59 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.241**	**3340.**	**2.10**	**141.**	**.074**	**.104**	**95200.**	**-.166**	**3.88**	**9.25**	**11.4**	**6570.**
Stddev	.368	6.	2.57	1.	.016	.356	158.	.075	.05	.37	.9	23.
%RSD	153.	.187	122.	.383	22.2	343.	.166	45.4	1.31	4.02	8.29	.354

Elem	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**6690.**	**46600.**	**573.**	**523.**	**.694**	**7.21**	**5.69**	**2.57**	**-.696**	**.347**	**7.11**	**31.5**
Stddev	14.	58.	2.	2.	.464	.43	1.74	2.14	3.24	1.96	.35	.2
%RSD	.202	.125	.309	.344	66.9	5.93	30.6	83.3	466.	565.	4.97	.559

Elem	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**24.6**	**26.3**	**26.2**	**12100.**	**29.5**	**240.**	**.983**	**13.3**	**43.2**	**2.98**	**22100.**
Stddev	.6	.0	.0	39.	1.2	.	.619	.6	.3	.03	24.
%RSD	2.33	.112	.163	.320	4.15	.191	63.0	4.79	.797	.844	.108

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46185.**	**594730.**	**103590.**
Stddev	110.	1906.	193.
%RSD	.23847	.32046	.18588

Sample Name: I1348149 Acquired: 07/19/2023 13:46:12 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.285**	**776.**	**-1.15**	**31.0**	**-.010**	**.056**	**21200.**	**-.047**	**.750**	**2.43**	**3.67**	**1480.**
Stddev	.494	3.	1.61	.7	.013	.229	77.	.062	.086	.19	.49	6.
%RSD	173.	.386	140.	2.12	123.	411.	.362	131.	11.5	7.75	13.3	.379

Elem	Fe2599	Mg2790	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1480.**	**10400.**	**9630.**	**128.**	**-.413**	**1.43**	**1.85**	**.546**	**-1.18**	**-1.76**	**1.76**	**10.2**
Stddev	3.	56.	58.	.	.381	.25	.66	1.88	3.42	1.00	.22	.0
%RSD	.217	.538	.602	.373	92.4	17.4	35.9	345.	289.	57.1	12.3	.466

Elem	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**5.60**	**5.74**	**2630.**	**7.74**	**52.9**	**.832**	**2.35**	**11.0**	**.657**	**4820.**
Stddev	.02	.01	10.	.72	.1	.906	.84	1.0	.024	21.
%RSD	.429	.178	.384	9.35	.262	109.	35.6	8.69	3.60	.439

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47401.**	**611110.**	**103100.**
Stddev	143.	2282.	276.
%RSD	.30252	.37338	.26764

Sample Name: dup1348149 Acquired: 07/19/2023 13:53:49 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.199**	**3390.**	**-.506**	**137.**	**.068**	**.369**	**93600.**	**-.121**	**3.96**	**9.16**	**11.7**	**6650.**
Stddev	.197	8.	3.01	1.	.011	.208	179.	.057	.04	.19	1.0	42.
%RSD	99.1	.234	596.	.439	15.9	56.3	.191	47.3	1.03	2.12	8.63	.637

Elem	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**6780.**	**45900.**	**561.**	**514.**	**.458**	**7.21**	**6.56**	**1.45**	**1.16**	**-1.52**	**6.63**	**29.1**
Stddev	16.	165.	3.	1.	.041	.22	.69	2.87	2.01	1.03	.26	.1
%RSD	.236	.360	.551	.187	8.95	3.02	10.5	198.	173.	68.0	3.94	.435

Elem	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**24.7**	**25.9**	**25.9**	**12100.**	**30.7**	**237.**	**.759**	**12.3**	**45.1**	**2.98**	**21700.**
Stddev	.4	.1	.1	31.	.3	.	.337	.7	1.9	.02	52.
%RSD	1.78	.390	.403	.255	1.08	.180	44.4	5.78	4.31	.739	.241

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46115.**	**596040.**	**103580.**
Stddev	48.	2277.	482.
%RSD	.10348	.38197	.46510

Sample Name: msw1348149 Acquired: 07/19/2023 14:01:02 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.0**	**5890.**	**800.**	**815.**	**931.**	**19.9**	**20.3**	**286000.**	**18.3**	**192.**	**89.2**
Stddev	.8	7.	3.	3.	2.	.1	.1	524.	.1	1.	.8
%RSD	4.32	.122	.433	.402	.241	.622	.363	.183	.666	.433	.903

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**104.**	**7030.**	**7240.**	**140000.**	**710.**	**571.**	**2140.**	**2190.**	**197.**	**180.**	**202.**
Stddev	2.	34.	11.	420.	4.	1.	4.	5.	.	2.	6.
%RSD	2.00	.477	.149	.301	.495	.218	.189	.236	.180	.888	2.72

Elem	Se1960	Tl1908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	**769.**	**608.**	**199.**	**209.**	**116.**	**112.**	**116.**	**14900.**	**36.7**	**2080.**	**.303**
Stddev	7.	1.	1.	.	1.	1.	.	22.	.7	4.	.626
%RSD	.960	.140	.676	.129	.864	.991	.226	.150	1.98	.189	206.

Elem	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	mg/L	ug/L
Avg	**1830.**	**52.8**	**97.8**	**21500.**
Stddev	9.	.7	.3	16.
%RSD	.513	1.32	.283	.076

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**43316.**	**566490.**	**101440.**
Stddev	84.	3038.	276.
%RSD	.19280	.53621	.27159

Sample Name: msdw1348149 Acquired: 07/19/2023 14:08:20 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3130	Be3131	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**12.3**	**3650.**	**488.**	**505.**	**581.**	**12.5**	**12.5**	**177000.**	**11.4**	**119.**	**56.5**
Stddev	.5	12.	3.	4.	2.	.1	.2	318.	.1	.	.8
%RSD	3.74	.331	.677	.858	.351	.968	1.99	.180	.741	.415	1.35

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**63.0**	**4430.**	**4520.**	**85900.**	**442.**	**1310.**	**1330.**	**124.**	**112.**	**124.**	**477.**
Stddev	1.1	42.	2.	242.	4.	4.	3.	.	1.	3.	4.
%RSD	1.78	.947	.035	.282	.969	.317	.199	.328	1.01	2.75	.782

Elem	Tl1908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**356.**	**124.**	**136.**	**71.2**	**71.0**	**71.9**	**9270.**	**23.8**	**1360.**	**.497**	**1160.**
Stddev	3.	1.	.	.7	.5	.5	42.	.7	5.	.506	12.
%RSD	.826	1.05	.298	1.03	.646	.636	.453	2.97	.350	102.	1.00

Elem	Li6707	K_7698	S_1820
Units	ug/L	mg/L	ug/L
Avg	**31.3**	**62.6**	**13200.**
Stddev	1.2	.2	50.
%RSD	3.79	.321	.375

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**44664.**	**579050.**	**101580.**
Stddev	38.	5278.	439.
%RSD	.08421	.91155	.43201

Sample Name: pdsw1348149 Acquired: 07/19/2023 14:15:14 Type: Unk
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca3158	Cd2265	Cd2288	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**78.2**	**7510.**	**2590.**	**2610.**	**4490.**	**83.3**	**108.**	**515000.**	**57.0**	**64.7**	**591.**
Stddev	6.5	341.	324.	306.	357.	6.9	9.	33900.	7.0	7.6	73.
%RSD	8.29	4.54	12.5	11.7	7.95	8.33	8.39	6.59	12.3	11.7	12.3

Elem	Cr2055	Cr2677	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**261.**	**339.**	**297.**	**7740.**	**8360.**	**253000.**	**1320.**	**1320.**	**1310.**	**1340.**	**606.**
Stddev	32.	27.	37.	106.	136.	16800.	65.	65.	127.	128.	75.
%RSD	12.3	8.07	12.3	1.37	1.63	6.64	4.91	4.91	9.69	9.55	12.3

Elem	Ni2316	Pb2203	Sb2175	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Na3302	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**600.**	**548.**	**626.**	**2470.**	**2290.**	**1100.**	**816.**	**623.**	**589.**	**229.**	**206.**
Stddev	74.	66.	80.	309.	266.	86.	70.	75.	69.	17.	14.
%RSD	12.3	12.1	12.8	12.5	11.6	7.78	8.59	12.1	11.7	7.47	6.78

Elem	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**220.**	**11600.**	**30.2**	**226.**	**.903**	**1670.**	**54.1**	**217.**	**21700.**
Stddev	16.	40.	.6	.	1.14	102.	1.6	17.	169.
%RSD	7.48	.343	1.83	.176	126.	6.14	2.96	7.95	.780

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**42929.**	**551640.**	**99245.**
Stddev	240.	3769.	564.
%RSD	.55852	.68321	.56844

Sample Name: ccv1 Acquired: 07/19/2023 14:29:38 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca3158	Ca3968	Cd2288	Co2388	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **292.**	**4840.**	**4980.**	**4960.**	**4840.**	**491.**	**502.**	**5120.**	**4970.**	**487.**	**4820.**	**5020.**
Stddev	1.	14.	18.	14.	5.	3.	2.	12.	26.	2.	27.	15.
%RSD	.465	.290	.362	.282	.106	.590	.303	.231	.523	.373	.557	.291
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	500.											
Range	-10.4%											

Elem	Cu2230	Cu3247	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4800.**	**4870.**	**5150.**	**5060.**	**4960.**	**4990.**	**4880.**	**4760.**	**4780.**	**4880.**	**4920.**	**4900.**
Stddev	24.	9.	33.	14.	13.	39.	28.	15.	5.	15.	5.	8.
%RSD	.498	.189	.634	.277	.265	.773	.576	.324	.110	.308	.109	.156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Pb2169	Sb2068	Se2062	Tl1908	V_2908	Zn2062	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**4700.**	**4880.**	**5000.**	**4910.**	**5050.**	**4890.**	**45.4**	**48.8**	**48.9**	**5190.**	**4900.**	**4840.**
Stddev	22.	21.	35.	9.	17.	7.	.5	.1	.1	24.	10.	16.
%RSD	.462	.429	.700	.190	.343	.141	1.13	.211	.175	.467	.200	.326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Sample Name: ccv1 Acquired: 07/19/2023 14:29:38 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**4840.**	**4820.**	**4900.**	**48.8**	**49000.**
Stddev	16.	35.	8.	.1	153.
%RSD	.326	.734	.162	.256	.311
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**46035.**	**580590.**	**101940.**
Stddev	115.	3046.	264.
%RSD	.24947	.52471	.25865

Sample Name: ccv2 Acquired: 07/19/2023 14:36:18 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**50.7**	**526.**	**489.**	**501.**	**528.**	**47.7**	**50.9**	**527.**	**48.7**	**49.4**	**507.**	**520.**	**507.**
Stddev	.5	.	3.	8.	3.	.2	.7	2.	.2	.4	2.	1.	1.
%RSD	1.08	.032	.534	1.66	.480	.432	1.30	.351	.341	.870	.304	.195	.143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Cu2230	Fe2343	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**511.**	**533.**	**519.**	**532.**	**502.**	**500.**	**495.**	**516.**	**516.**	**479.**	**502.**	**512.**	**541.**
Stddev	2.	3.	3.	2.	2.	1.	2.	.	1.	1.	6.	4.	2.
%RSD	.309	.509	.500	.359	.441	.245	.309	.076	.116	.311	1.21	.823	.338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	V_2908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**512.**	**487.**	**500.**	**496.**	**4.91**	**5.04**	**512.**	**508.**	**501.**	**509.**	**479.**	**497.**	**5.04**
Stddev	3.	2.	1.	2.	.01	.01	5.	1.	1.	2.	4.	3.	.03
%RSD	.585	.386	.121	.318	.143	.226	.908	.113	.192	.298	.733	.535	.583
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Sample Name: ccv2 Acquired: 07/19/2023 14:36:18 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	S_1820
Units	ug/L
Avg	**4820.**
Stddev	15.
%RSD	.318

Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47476.**	**615140.**	**102240.**
Stddev	113.	3332.	97.
%RSD	.23850	.54160	.09509

Sample Name: ccb Acquired: 07/19/2023 14:43:00 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.531**	**-1.30**	**-.347**	**-.041**	**-.029**	**.494**	**1.62**	**-.046**	**.230**	**.028**	**-.022**	**.695**	**.800**
Stddev	.270	.67	3.06	.466	.011	.279	.15	.066	.205	.337	.755	.587	.101
%RSD	50.8	51.4	881.	1140.	39.6	56.6	9.21	144.	89.3	1210.	3500.	84.4	12.7
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**.090**	**-.185**	**-.085**	**.256**	**2.81**	**.339**	**.016**	**.166**	**.330**	**-.156**	**.012**	**-4.15**	**1.84**
Stddev	.046	.157	.147	.579	1.29	3.32	1.04	.211	.143	.006	.002	6.40	.55
%RSD	50.3	84.6	173.	226.	46.1	978.	6410.	127.	43.3	3.81	19.1	154.	29.8
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Avg	**.022**	**-.282**	**.526**	**.437**	**-.013**	**3.41**
Stddev	.071	.372	.534	2.29	.034	3.43
%RSD	318.	132.	101.	525.	268.	101.
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: ccb Acquired: 07/19/2023 14:43:00 Type: QC
Method: DOD Calibration Updated 060614(v5754) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**47923.**	**619080.**	**103010.**
Stddev	243.	3767.	335.
%RSD	.50617	.60851	.32508

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	07/27/2023 11:02:01	07/26/2023 11:03:23	Linear	1/Conc	-0.000137	0.000027	0.000000	1.000000	0.999815	0.000001	0.578414	1.928048
Ag 338.289 {100}	07/27/2023 11:02:01	07/26/2023 11:03:23	Linear	1/Conc	0.000000	0.000005	0.000000	1.000000	0.999993	0.000000	0.990297	3.300990
Al 167.079 {501}	07/27/2023 11:02:01	07/26/2023 10:15:19	Linear	1/Conc	0.000029	0.000007	0.000000	1.000000	0.998314	0.000002	0.783034	2.610114
Al 309.271 {109}	07/27/2023 11:02:01	07/26/2023 10:55:44	Linear	1/Var	0.000118	0.000002	0.000000	1.000000	0.999982	0.000069	10.465218	34.884059
Al 396.152 { 85}	07/27/2023 11:02:01	07/26/2023 10:55:44	Linear	1/Var	-0.000057	0.000005	0.000000	1.000000	0.999832	0.000122	6.502434	21.674781
As 193.759 {474}	07/27/2023 11:02:01	07/26/2023 10:15:19	Linear	1/Conc	0.000033	0.000004	0.000000	1.000000	0.999409	0.000001	3.196336	10.654453
As 197.262 {471}	07/27/2023 11:02:01	07/26/2023 10:23:02	Linear	1/Var	0.125242	0.090367	0.000000	1.000000	0.999430	2.286491	6.600398	22.001328
Ba 233.527 {145}	07/27/2023 11:02:01	07/26/2023 11:03:23	Linear	1/Var	0.000006	0.000002	0.000000	1.000000	0.999991	0.000003	2.085226	6.950752
Ba 233.527 {445}	07/27/2023 11:02:01	07/26/2023 10:23:02	Linear	1/Conc	0.000004	0.000046	0.000000	1.000000	0.999529	0.000005	0.257489	0.858298
Ba 455.403 { 74}	07/27/2023 11:02:01	07/26/2023 11:03:23	Linear	1/Conc	0.000148	0.000155	0.000000	1.000000	0.999535	0.000030	0.164704	0.549013
Ba 493.409 { 68}	07/27/2023 11:02:01	07/26/2023 11:03:23	Linear	None	0.025541	0.000094	0.000000	1.000000	0.999873	0.017544	0.813647	2.712158
Be 234.861 {144}	07/27/2023 11:02:01	07/26/2023 10:15:19	Linear	1/Conc	-0.000009	0.000024	0.000000	1.000000	0.999941	0.000000	0.184481	0.614936
Be 313.042 {108}	07/27/2023 11:02:01	07/26/2023 10:15:19	Linear	1/Conc	0.000016	0.000221	0.000000	1.000000	0.999930	0.000002	0.016018	0.053392
Be 313.107 {108}	07/27/2023 11:02:01	07/26/2023 10:15:19	Linear	1/Conc	0.000016	0.000097	0.000000	1.000000	0.999923	0.000001	0.154017	0.513389
Ca 184.006 {483}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Conc	-0.000218	0.000006	0.000000	1.000000	0.999937	0.000033	1.755192	5.850640
Ca 315.887 {107}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Var	0.000086	0.000002	0.000000	1.000000	0.998984	0.000314	4.207918	14.026392
Ca 317.933 {106}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Var	0.002631	0.000005	0.000000	1.000000	0.999505	0.000373	1.901564	6.338546
Ca 393.366 { 86}	07/27/2023 11:02:01	07/26/2023 10:15:20	Linear	1/Conc	0.000447	0.000571	0.000000	1.000000	0.999551	0.000311	0.037265	0.124217
Ca 396.847 { 85}	07/27/2023 11:02:01	07/26/2023 10:23:02	Linear	1/Conc	0.000195	0.000238	0.000000	1.000000	0.999566	0.000330	0.082424	0.274747
Cd 226.502 {449}	07/27/2023 11:02:01	07/26/2023 10:15:20	Linear	1/Conc	-0.000006	0.000154	0.000000	1.000000	0.999956	0.000001	0.124984	0.416615
Cd 228.802 {448}	07/27/2023 11:02:01	07/26/2023 10:15:20	Linear	1/Var	0.000001	0.000025	0.000000	1.000000	0.999980	0.000023	0.441163	1.470543
Co 228.616 {447}	07/27/2023 11:02:01	07/26/2023 10:23:02	Linear	1/Conc	-0.000015	0.000100	0.000000	1.000000	0.999766	0.000008	0.229233	0.764109
Co 238.892 {141}	07/27/2023 11:02:01	07/26/2023 10:23:02	Linear	1/Conc	0.000008	0.000005	0.000000	1.000000	0.999971	0.000002	0.486362	1.621205
Cr 205.560 {464}	07/27/2023 11:02:01	07/26/2023 10:31:01	Linear	1/Var	0.000062	0.000067	0.000000	1.000000	0.998795	0.000360	0.221181	0.737269
Cr 267.716 {126}	07/27/2023 11:02:01	07/26/2023 10:15:20	Linear	1/Conc	0.000003	0.000007	0.000000	1.000000	0.999925	0.000000	0.441890	1.472965
Cu 223.008 {451}	07/27/2023 11:02:01	07/26/2023 10:23:02	Linear	1/Conc	-0.000004	0.000021	0.000000	1.000000	0.999571	0.000008	1.075622	3.585406
Cu 324.754 {104}	07/27/2023 11:02:01	07/26/2023 10:31:01	Linear	1/Conc	0.000070	0.000009	0.000000	1.000000	0.999930	0.000015	1.802977	6.009922
Cu 327.396 {103}	07/27/2023 11:02:01	07/26/2023 10:31:01	Linear	1/Var	-0.000008	0.000006	0.000000	1.000000	0.999401	0.000145	4.548082	15.160272
Fe 234.349 {144}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Conc	0.000018	0.000001	0.000000	1.000000	0.999846	0.000010	0.861600	2.872000
Fe 239.562 {140}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Conc	0.000006	0.000003	0.000000	1.000000	0.997849	0.000303	2.522070	8.406899
Fe 259.940 {129}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Var	0.000092	0.000009	0.000000	1.000000	0.999486	0.000342	1.183957	3.946525
Mg 202.582 {466}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Conc	-0.000120	0.000005	0.000000	1.000000	0.996856	0.000579	3.398966	11.329886
Mg 279.079 {121}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999504	0.000011	18.038212	60.127372
Mg 280.270 {120}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000102	0.000104	0.000000	1.000000	0.999570	0.000143	0.017315	0.057716
Mn 257.610 {131}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000005	0.000048	0.000000	1.000000	0.999899	0.000006	0.038900	0.129668
Mn 259.373 {130}	07/27/2023 11:02:01	07/26/2023 10:31:01	Linear	1/Conc	0.000001	0.000027	0.000000	1.000000	0.999976	0.000089	0.342930	1.143098
Mo 202.030 {466}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000006	0.000035	0.000000	1.000000	0.999747	0.000007	0.389002	1.296674
Mo 204.598 {464}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000002	0.000018	0.000000	1.000000	0.999767	0.000003	0.768588	2.561959
Ni 221.647 {452}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000025	0.000050	0.000000	1.000000	0.999697	0.000058	0.482038	1.606794
Ni 231.604 {445}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000033	0.000059	0.000000	1.000000	0.999679	0.000006	0.409497	1.364991
Pb 216.999 {455}	07/27/2023 11:02:01	07/26/2023 10:31:01	Linear	1/Conc	-0.000038	0.000005	0.000000	1.000000	0.999833	0.000013	3.893699	12.978997
Pb 220.353 {153}	07/27/2023 11:02:01	07/26/2023 10:31:01	Linear	1/Conc	-0.000000	0.000001	0.000000	1.000000	0.999977	0.000001	1.946299	6.487664
Pb 220.353 {453}	07/27/2023 11:02:01	07/26/2023 10:15:21	Linear	1/Conc	0.000023	0.000017	0.000000	1.000000	0.999141	0.000002	1.539441	5.131469
Sb 206.833 {463}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Var	0.000023	0.000006	0.000000	1.000000	0.999333	0.000090	2.330123	7.767078

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {145}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0

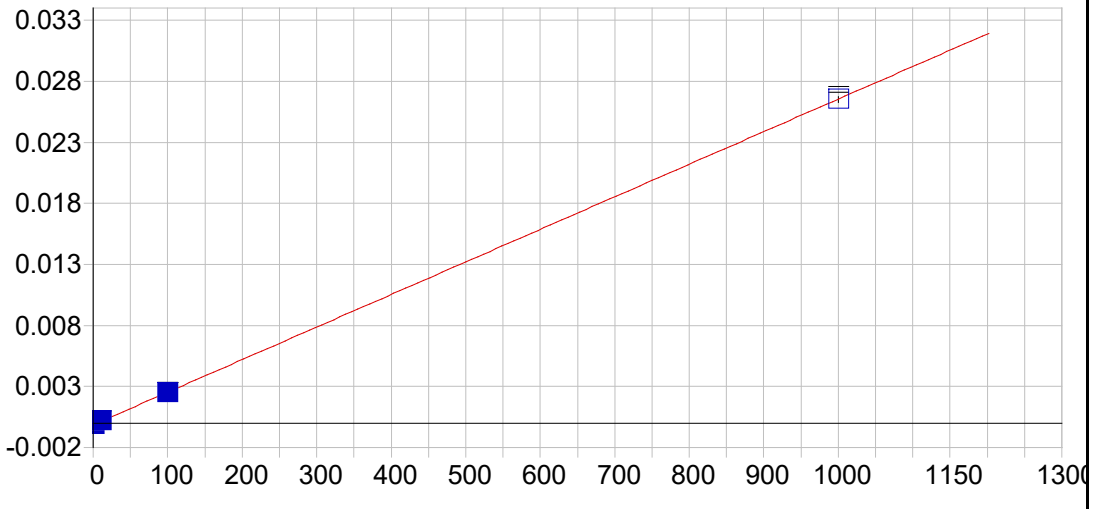
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Sb 217.581 {455}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000018	0.000006	0.000000	1.000000	0.999608	0.000002	2.637687	8.792291
	Se 196.090 {472}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000017	0.000002	0.000000	1.000000	0.999583	0.000001	6.027582	20.091940
	Se 206.279 {463}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000002	0.000001	0.000000	1.000000	0.999480	0.000001	22.528925	75.096418
	Tl 190.856 {476}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000004	0.000008	0.000000	1.000000	0.999296	0.000004	1.820962	6.069872
	Tl 190.856 {477}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	-0.000006	0.000003	0.000000	1.000000	0.999206	0.000001	3.877710	12.925700
	V 290.882 {116}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000039	0.000004	0.000000	1.000000	0.999849	0.000003	2.871588	9.571961
	V 292.402 {115}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000004	0.000016	0.000000	1.000000	0.999986	0.000001	0.408273	1.360909
	Zn 206.200 {463}	07/27/2023 11:02:01	07/26/2023 10:31:01	Curvili	1/Var	0.000056	0.000066	-0.000000	1.000000	0.999703	0.000180	0.224830	0.749433
	Zn 213.856 {457}	07/27/2023 11:02:01	07/26/2023 10:15:21	Linear	1/Conc	0.932735	6.679361	0.000000	1.000000	0.999894	0.457282	0.137271	0.457569
	Y 224.306 {450}*	07/27/2023 11:02:01	07/26/2023 09:17:56	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	07/27/2023 11:02:01	07/26/2023 09:17:56	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	07/27/2023 11:02:01	07/26/2023 09:17:56	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Var	0.000086	0.000024	0.000000	1.000000	0.998794	0.000147	0.806782	2.689272
	Na 588.995 { 57}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Conc	3226.9732	2339.7985	0.000000	1.000000	0.999988	2.046486	0.005266	0.017554
	Na 589.592 { 57}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Var	9.154174	1238.0244	0.000000	1.000000	0.999963	9.979209	0.006626	0.022086
	Si 212.412 {458}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Conc	0.000074	0.000015	0.000000	1.000000	0.999674	0.000178	1.239417	4.131391
	Si 251.611 {134}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Var	0.000074	0.000002	0.000000	1.000000	0.999911	0.000194	3.795664	12.652214
	Ti 323.452 {104}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000627	0.000023	0.000000	1.000000	0.999895	0.000003	0.856505	2.855017
	Ti 334.941 {101}	07/27/2023 11:02:01	07/26/2023 10:23:03	Linear	1/Conc	0.000021	0.000011	0.000000	1.000000	0.999816	0.000002	1.098237	3.660790
	Sr 407.771 { 83}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	0.000171	0.000290	0.000000	1.000000	0.999746	0.000026	0.092092	0.306973
	Sr 421.552 { 80}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	-0.000333	0.000248	0.000000	1.000000	0.999727	0.000023	0.121512	0.405039
	Sn 189.989 {477}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	0.000005	0.000017	0.000000	1.000000	0.999662	0.000006	0.694776	2.315920
	Sn 189.989 {478}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	-0.000003	0.000003	0.000000	1.000000	0.999713	0.000001	2.572223	8.574076
	B 249.678 {135}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	0.000035	0.000005	0.000000	1.000000	0.999987	0.000000	0.800058	2.666861
	B 249.773 {135}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	0.000028	0.000008	0.000000	1.000000	0.999967	0.000001	0.358493	1.194978
	Li 610.353 { 55}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Var	0.000182	0.000006	0.000000	1.000000	0.999901	0.000159	13.230182	44.100608
	Li 670.776 { 50}	07/27/2023 11:02:01	07/26/2023 10:23:04	Curvili	1/Conc	-0.000258	0.000034	-0.000000	1.000000	0.999998	0.000001	1.544547	5.148490
	K 766.490 { 44}	07/27/2023 11:02:01	07/26/2023 10:38:28	Linear	1/Conc	-8.498595	379.69083	0.000000	1.000000	0.999946	0.717372	0.019021	0.063403
	K 769.896 { 44}	07/27/2023 11:02:01	07/26/2023 10:55:45	Linear	1/Var	81.455631	83.181148	0.000000	1.000000	0.997068	92.645265	0.069238	0.230794
	P 177.495 {489}	07/27/2023 11:02:01	07/26/2023 10:23:04	Linear	1/Conc	-0.000000	0.000002	0.000000	1.000000	0.999991	0.000001	3.730149	12.433830
	S 182.034 {485}	07/27/2023 11:02:01	07/26/2023 10:55:45	Curvili	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999982	0.000013	5.712828	19.042760
	Hg 184.950 {482}	07/27/2023 11:02:01	07/26/2023 10:15:22	Linear	1/Conc	-0.000028	0.000015	0.000000	1.000000	0.999957	0.000000	0.698781	2.329270
	Hg 194.227 {473}	07/27/2023 11:02:01	07/26/2023 10:15:22	Linear	1/Conc	-0.000009	0.000014	0.000000	1.000000	0.999780	0.000000	0.858086	2.860286
	Ce 404.076 { 83}	07/27/2023 11:02:01	07/26/2023 10:15:22	Linear	1/Conc	0.000126	0.000002	0.000000	1.000000	1.000000	0.000000	14.994304	49.981015

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Hg 194.227 {473}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Ce	-0.003008	0.000000	No
			Ti	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000095	0.000000	No
Al 167.079 {501}	☒	1	Fe	0.000000	0.000000	No
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.000949	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000116	0.000000	No
Ba 233.527 {145}	☒	1	Fe	-0.000003	0.000000	No
Ba 233.527 {445}	☒	2	Fe	-0.000022	0.000000	No
			Cu	0.000181	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	S	-0.003000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000002	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000010	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000085	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	4	Fe	0.000003	0.000000	No
			Ba	0.000092	0.000000	No
			Ti	0.002165	0.000000	No
			Ni	0.003013	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000000	0.000000	No
Cu 223.008 {451}	☒	3	Fe	-0.000019	0.000000	No
			Tl	0.000000	0.000000	No
			Mo	0.009000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000227	0.000000	No
Cu 327.396 {103}	☒	1	Fe	-0.000007	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Mg	0.000003	0.000000	No
Mn 259.373 {130}	☒	1	Mg	0.001068	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000002	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mo 204.598 {464}	☒	1	Fe	0.000028	0.000000	No
Ni 221.647 {452}	☒	1	Ca	-0.000003	0.000000	No
Ni 231.604 {445}	☒	4	Fe	-0.000027	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.007139	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {153}	☒	1	Fe	-0.000017	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000018	0.000000	No
Sb 206.833 {463}	☒	2	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000089	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	0.000009	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000051	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000239	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	5	Fe	-0.000005	0.000000	No
			Cr	-0.000051	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.001538	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000015	0.000000	No
Zn 213.856 {457}	☒	1	Fe	0.000120	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	2	Sr	0.000000	0.000000	No
			Fe	-0.000006	0.000000	No
Na 588.995 { 57}	☒	1	Fe	-0.000000	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000000	0.000000	No
Si 212.412 {458}	☒	1	Fe	0.000004	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000053	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000003	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000040	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000018	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
Sn 189.989 {478}	☒	1	Fe	-0.000008	0.000000	No
B 249.678 {135}	☒	1	Fe	-0.000015	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000809	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Li 610.353 { 55}	☒	1	Fe	0.000227	0.000000	No
Li 670.776 { 50}	☒	1	Fe	0.000020	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000000	0.000000	No
K 769.896 { 44}	☒	1	Fe	-0.000001	0.000000	No
P 177.495 {489}	☒	1	Fe	0.000209	0.000000	No
S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
			Fe	0.000031	0.000000	No
Hg 184.950 {482}	☒	1	Fe	-0.000010	0.000000	No
Hg 194.227 {473}	☒	1	Fe	0.000007	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

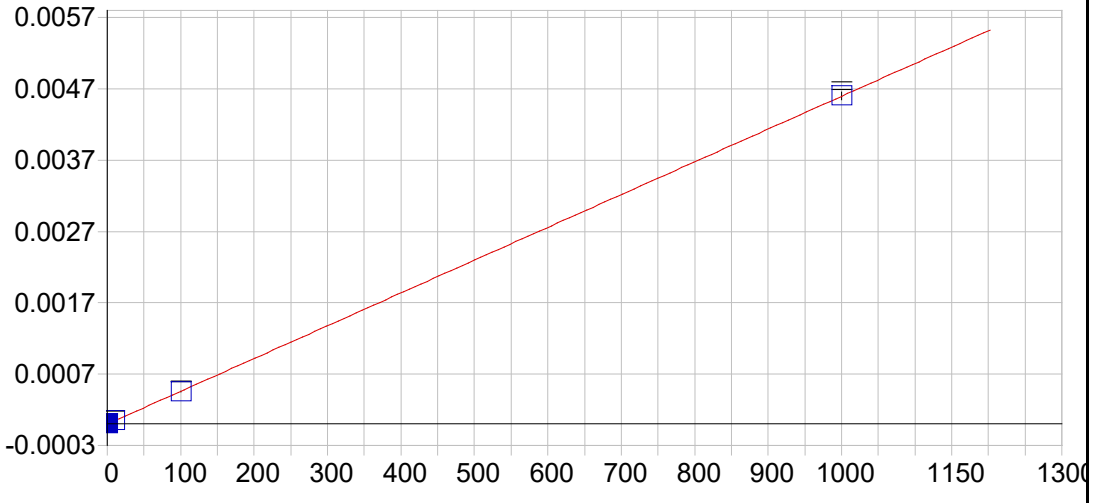


Ag 328.068 {103}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000137	Re-Slope:	1.000000
A1 (Gain):	0.000027	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999815	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.578414		
Predicted MQL:	1.928048		

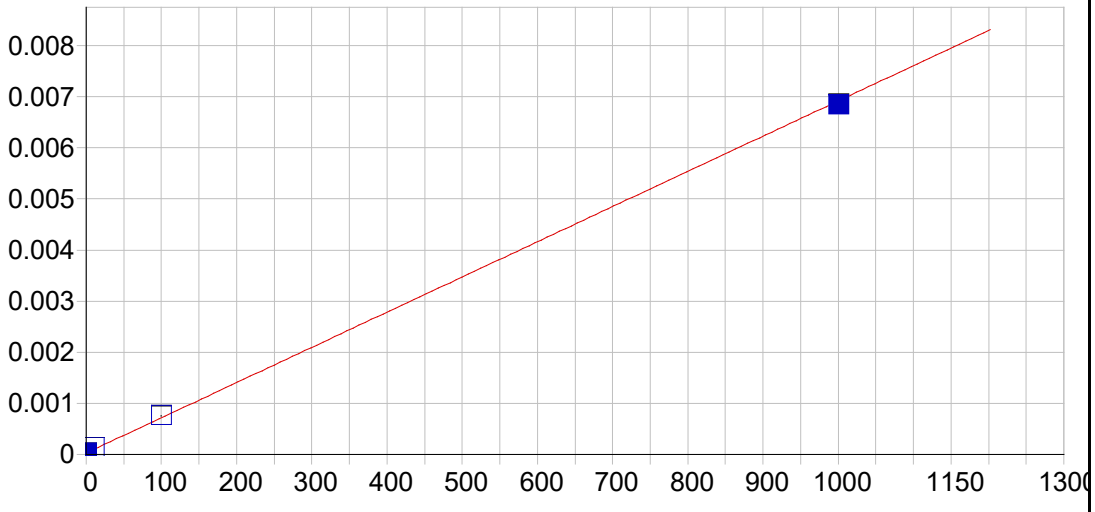
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	-.000	.000	-.00014	.000	1
CalStd8=100	100.00	99.079	-.921	-.921	.00251	.000	1
CalStd3=1	1.0000	.92377	-.076	-7.62	-.00011	.000	1
CalStd5=10	10.000	11.988	1.99	19.9	.00018	.000	1
Ag 1000 Ba	1000.0	999.01	-.990	-.099	.02652	.000	1



Ag 338.289 {100}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000005		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999993		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.990297				
Predicted MQL:	3.300990				

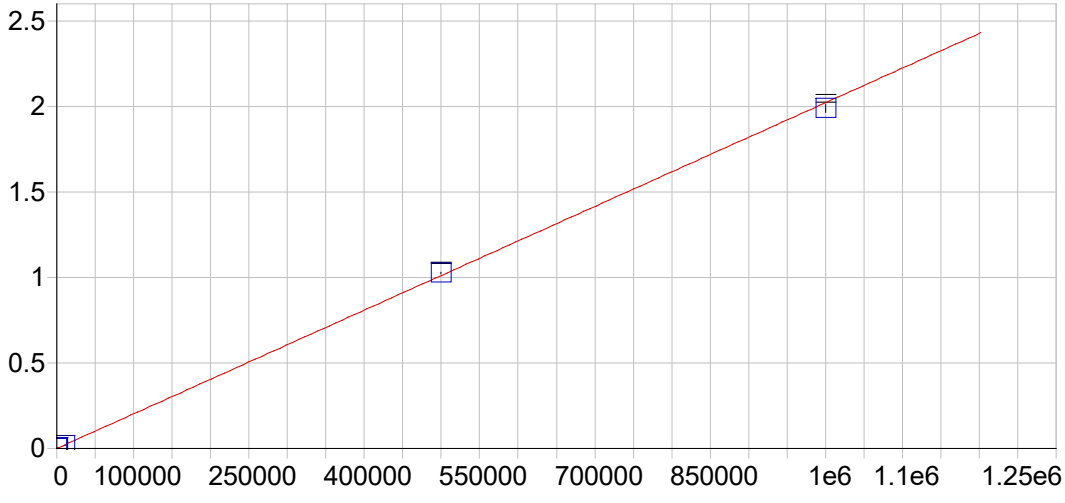
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00015	-.000	.000	.00000	.000	1
Ag 1000 Ba	1000.0	1000.7	.721	.072	.00460	.000	1
CalStd5=10	10.000	10.241	.241	2.41	.00005	.000	1
CalStd8=100	100.00	99.037	-.963	-.963	.00046	.000	1



Al 167.079 {501}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000029		Re-Slope:	1.000000	
A1 (Gain):	0.000007		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998314		Status:	OK.	
Std Error of Est:	0.000002				
Predicted MDL:	0.783034				
Predicted MQL:	2.610114				

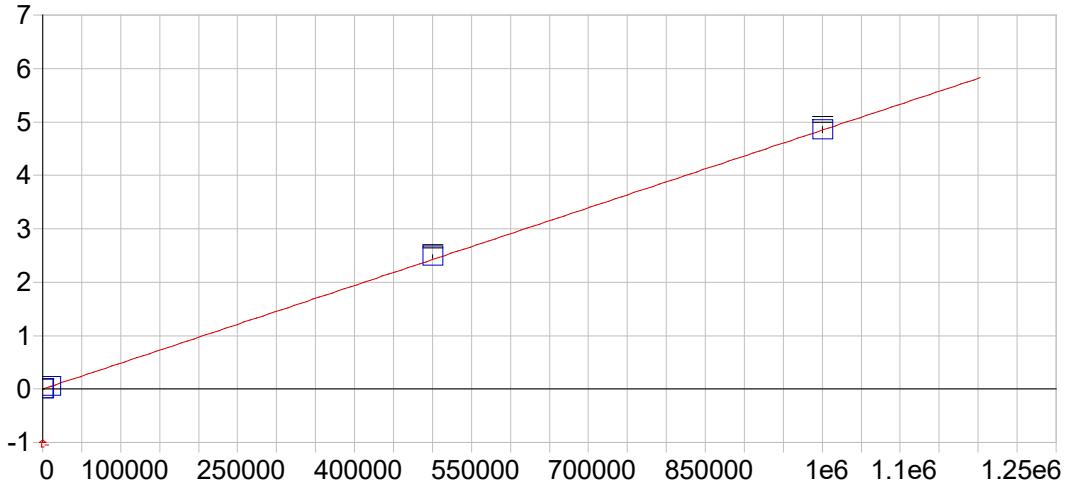
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00619	-.006	.000	.00003	.000	1
CalStd9=100	1000.0	988.43	-11.6	-1.16	.00684	.000	1
CalStd5=10	10.000	15.721	5.72	57.2	.00014	.000	1
CalStd8=100	100.00	105.85	5.85	5.85	.00076	.000	1



Al 309.271 {109}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000118		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999982		Status:	OK.	
Std Error of Est:	0.000069				
Predicted MDL:	10.465218				
Predicted MQL:	34.884059				

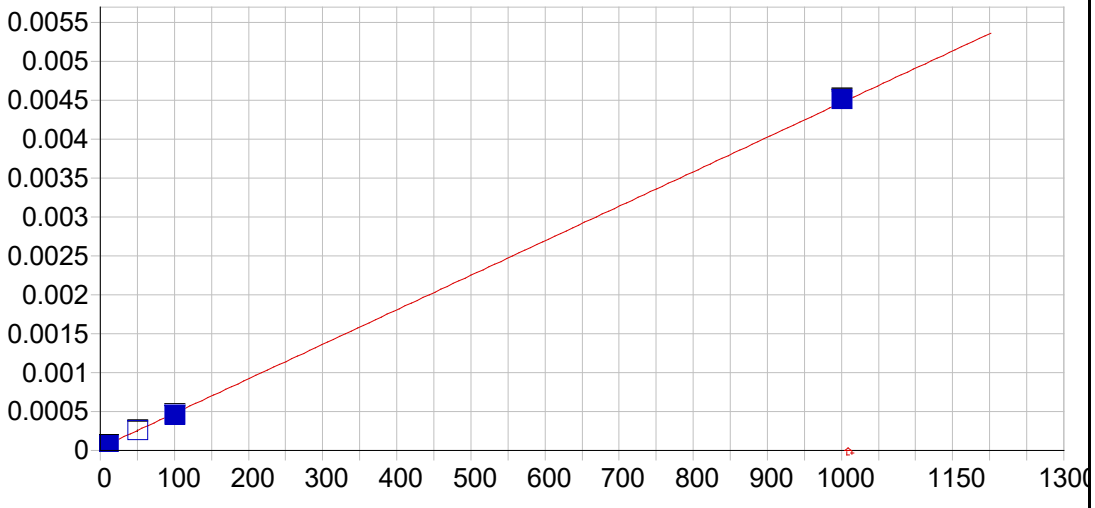
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-12.346	-12.3	.000	.00009	.000	1
CalStd9=100	1000.0	1057.0	57.0	5.70	.00226	.000	1
CalStd5=10	10.000	4.9722	-5.03	-50.3	.00013	.000	1
CalStd8=100	100.00	103.76	3.76	3.76	.00033	.000	1
CalStd10=10	10000.	9991.9	-8.11	-.081	.02032	.000	1
CalStd14=50	500000.	507670.	7670.	1.53	1.0266	.004	1
CalibStd15=	1000000.	983170.	-16800.	-1.68	1.9880	.023	1



Al 396.152 { 85}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000057		Re-Slope:	1.000000	
A1 (Gain):	0.000005		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999832		Status:	OK.	
Std Error of Est:	0.000122				
Predicted MDL:	6.502434				
Predicted MQL:	21.674781				

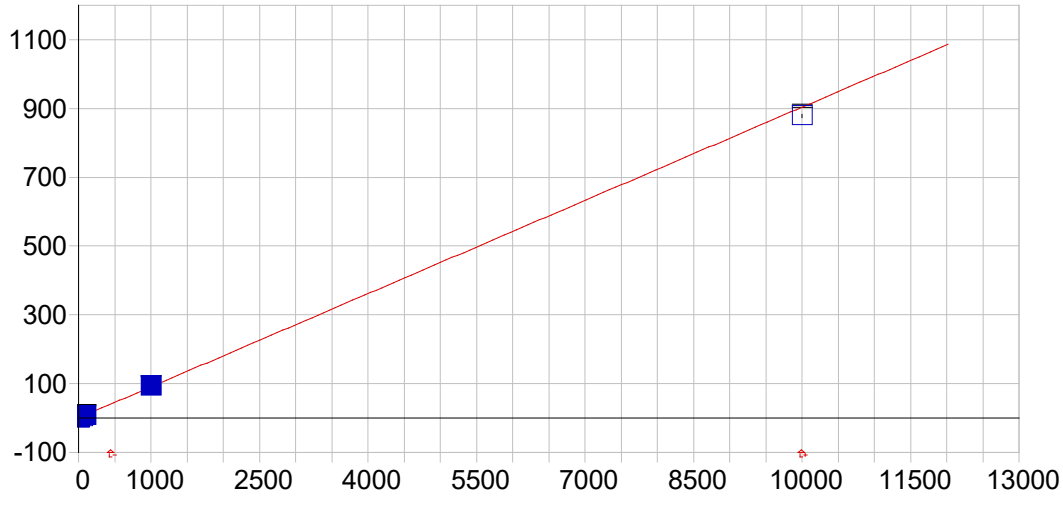
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.7514	-4.75	.000	-.00008	.000	1
CalStd14=50	500000.	512250.	12300.	2.45	2.4824	.034	1
CalStd10=10	10000.	9954.2	-45.8	-.458	.04818	.000	1
CalStd9=100	1000.0	1069.1	69.1	6.91	.00512	.000	1
CalibStd15=	1000000.	1001500.	1480.	.148	4.8533	.054	1



As 193.759 {474}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000033		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999409		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	3.196336				
Predicted MQL:	10.654453				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00365	.004	.000	.00003	.000	1
CalStd9=100	1000.0	1008.2	8.20	.820	.00451	.000	1
CalStd7=50	50.000	50.089	.089	.178	.00026	.000	1
CalStd5=10	10.000	6.7556	-3.24	-32.4	.00006	.000	1
CalStd8=100	100.00	94.960	-5.04	-5.04	.00046	.000	1

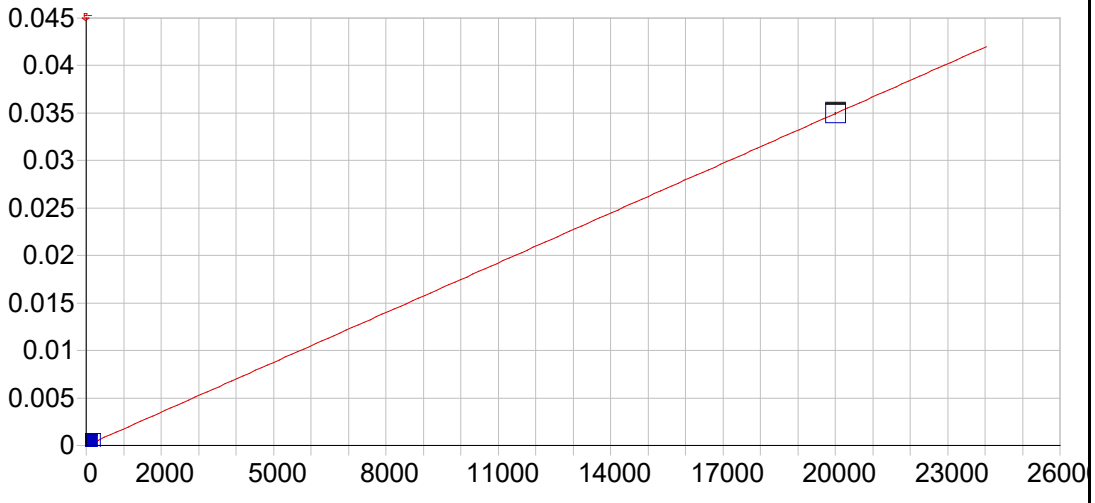


As 197.262 {471}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.125242	Re-Slope:	1.000000
A1 (Gain):	0.090367	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999430	Status:	OK.
Std Error of Est:	2.286491		
Predicted MDL:	6.600398		
Predicted MQL:	22.001328		

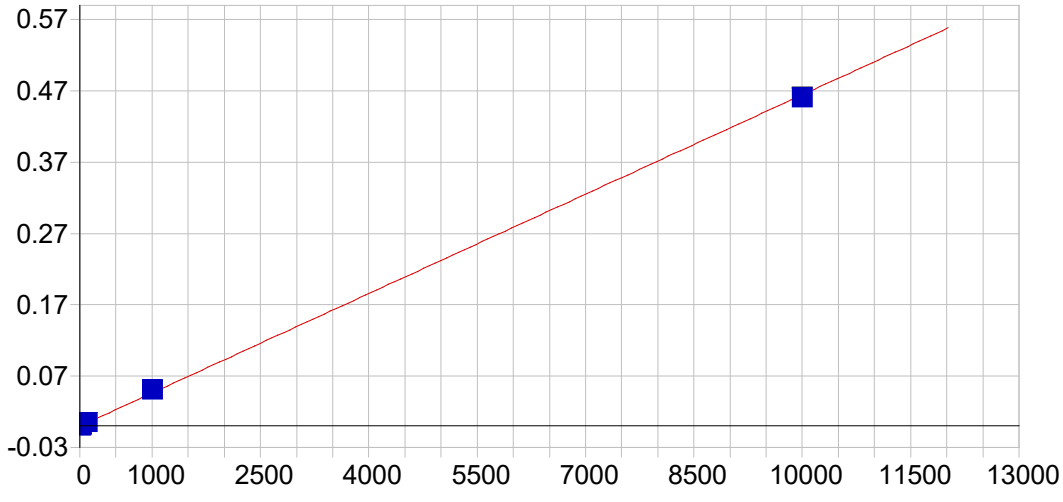
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-9.2935	-9.29	.000	-.71458	.458	1
CalStd9=100	1000.0	1030.5	30.5	3.05	93.237	.479	1
CalStd7=50	50.000	46.746	-3.25	-6.51	4.3496	.411	1
CalStd5=10	10.000	-2.1741	-12.2	-122.	-.07133	.638	1
CalStd8=100	100.00	90.609	-9.39	-9.39	8.3122	.596	1
CalStd10=10	10000.	9724.1	-276.	-2.76	878.86	4.63	1



Ba 233.527 {145}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999991		Status:	OK.	
Std Error of Est:	0.000003				
Predicted MDL:	2.085226				
Predicted MQL:	6.950752				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.6250	-1.62	.000	.00000	.000	1
CalStd5=10	10.000	10.379	.379	3.79	.00002	.000	1
CalStd6=20	20.000	21.837	1.84	9.18	.00004	.000	1
CalStd8=100	100.00	100.40	.399	.399	.00018	.000	1
CalStd4=5	5.0000	5.8750	.875	17.5	.00002	.000	1
Ag 1000 Ba	20000.	19996.	-3.50	-.018	.03494	.000	1

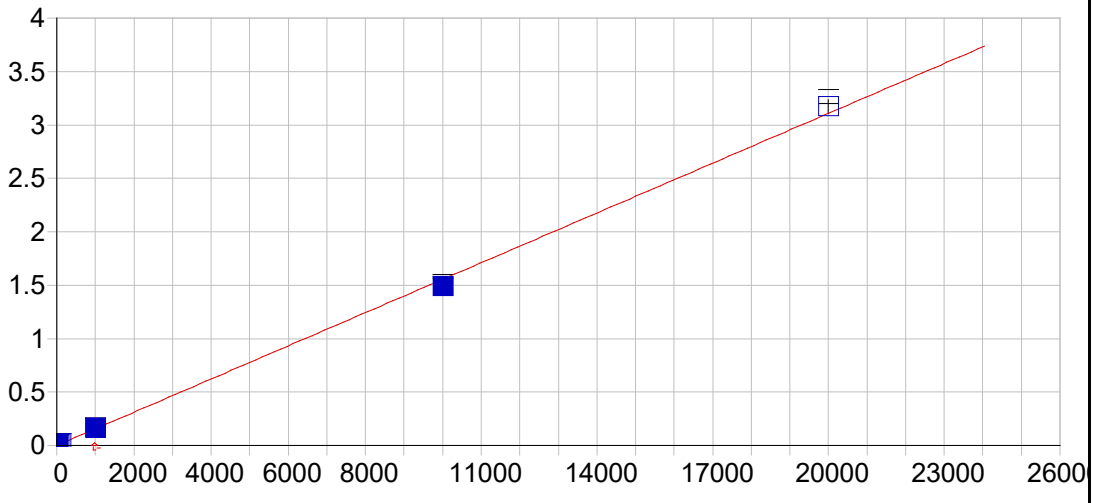


Ba 233.527 {445}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999529	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.257489		
Predicted MQL:	0.858298		

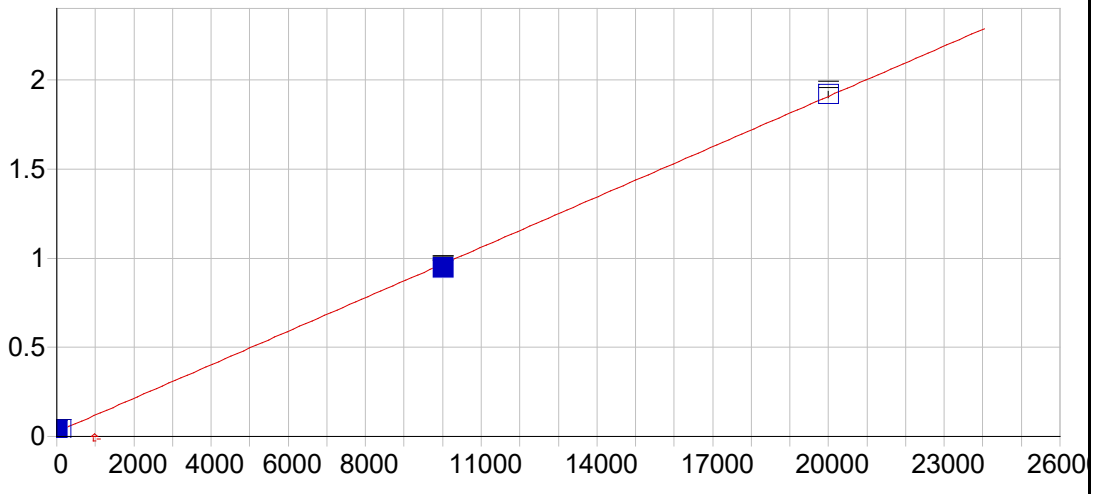
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00163	-.002	.000	.00000	.000	1
CalStd5=10	10.000	11.537	1.54	15.4	.00054	.000	1
CalStd6=20	20.000	23.308	3.31	16.5	.00109	.000	1
CalStd8=100	100.00	106.72	6.72	6.72	.00496	.000	1
CalStd4=5	5.0000	6.5876	1.59	31.8	.00031	.000	1
CalStd9=100	1000.0	1084.0	84.0	8.40	.05037	.000	1
CalStd3=1	1.0000	1.8558	.856	85.6	.00009	.000	1
CalStd10=10	10000.	9902.0	-98.0	-.980	.46009	.001	1



Ba 455.403 { 74}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000148		Re-Slope:	1.000000	
A1 (Gain):	0.000155		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999535		Status:	OK.	
Std Error of Est:	0.000030				
Predicted MDL:	0.164704				
Predicted MQL:	0.549013				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00163	-.002	.000	.00015	.000	1
CalStd7=50	50.000	52.183	2.18	4.37	.00826	.000	1
CalStd5=10	10.000	11.042	1.04	10.4	.00186	.000	1
CalStd6=20	20.000	22.187	2.19	10.9	.00360	.000	1
CalStd8=100	100.00	100.06	.061	.061	.01570	.000	1
CalStd4=5	5.0000	6.4912	1.49	29.8	.00116	.000	1
CalStd9=100	1000.0	1021.0	21.0	2.10	.15885	.000	1
CalStd3=1	1.0000	2.0765	1.08	108.	.00047	.000	1
CalStd10=10	10000.	9569.7	-430.	-4.30	1.4876	.019	1
Ag 1000 Ba	20000.	20401.	401.	2.01	3.1713	.065	1

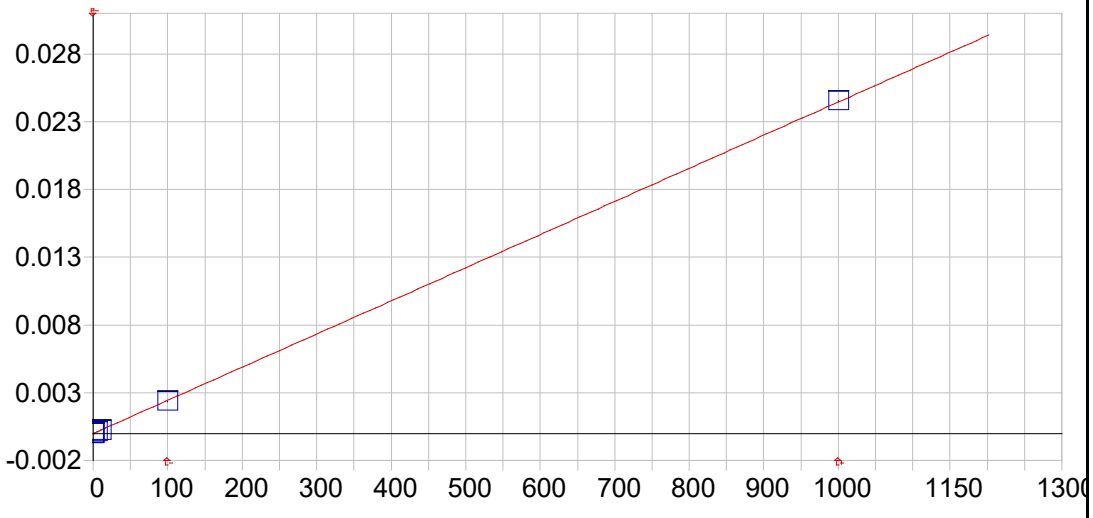


Ba 493.409 { 68}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.025541	Re-Slope:	1.000000
A1 (Gain):	0.000094	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.017544		
Predicted MDL:	0.813647		
Predicted MQL:	2.712158		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	52.973	53.0	.000	.03053	.000	1
CalStd8=100	100.00	160.06	60.1	60.1	.04061	.000	1
CalStd10=10	10000.	9775.2	-225.	-2.25	.94312	.012	1
Ag 1000 Ba	20000.	20112.	112.	.559	1.9192	.018	1

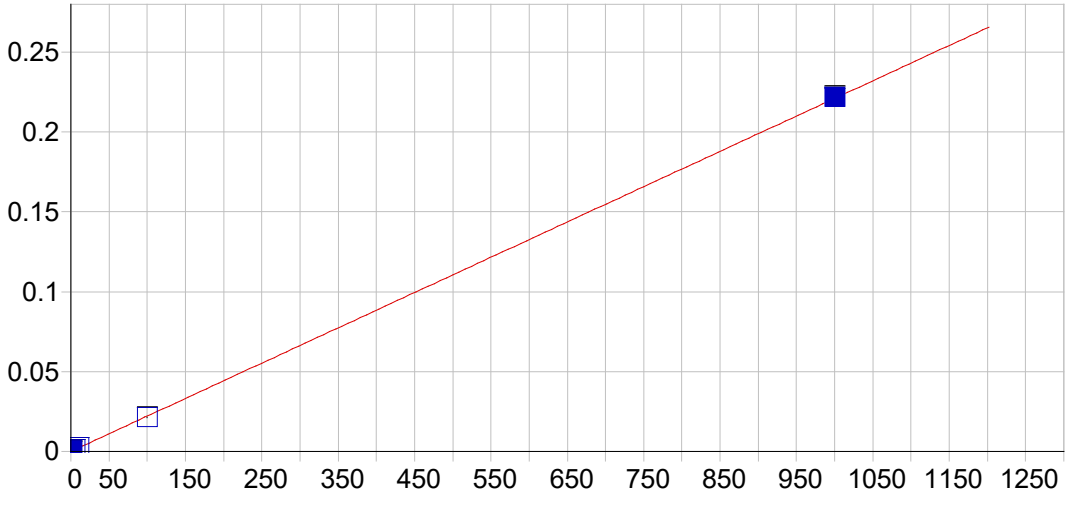


Be 234.861 {144}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999941	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.184481		
Predicted MQL:	0.614936		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00012	.000	.000	-.00001	.000	1
CalStd5=10	10.000	9.9385	-.062	-.615	.00023	.000	1
CalStd8=100	100.00	96.955	-3.04	-3.04	.00236	.000	1
CalStd2=0.5	.50000	.38440	-.116	-23.1	.00000	.000	1
CalStd4=5	5.0000	5.1180	.118	2.36	.00012	.000	1
CalStd9=100	1000.0	1003.1	3.10	.310	.02453	.000	1
CalStd3=1	1.0000	.99988	-.000	-.012	.00002	.000	1

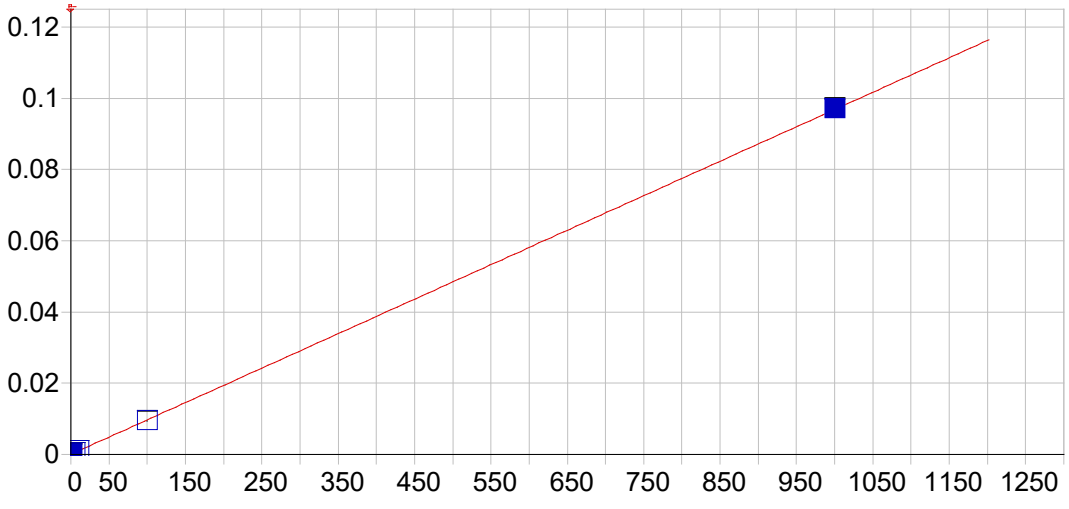


Be 313.042 {108}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000221	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.016018		
Predicted MQL:	0.053392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	-.000	.000	.00002	.000	1
CalStd5=10	10.000	10.372	.372	3.72	.00231	.000	1
CalStd8=100	100.00	96.476	-3.52	-3.52	.02134	.000	1
CalStd2=0.5	.50000	.51668	.017	3.34	.00013	.000	1
CalStd4=5	5.0000	5.2074	.207	4.15	.00117	.000	1
CalStd9=100	1000.0	1002.9	2.89	.289	.22171	.001	1
CalStd3=1	1.0000	1.0385	.039	3.85	.00025	.000	1

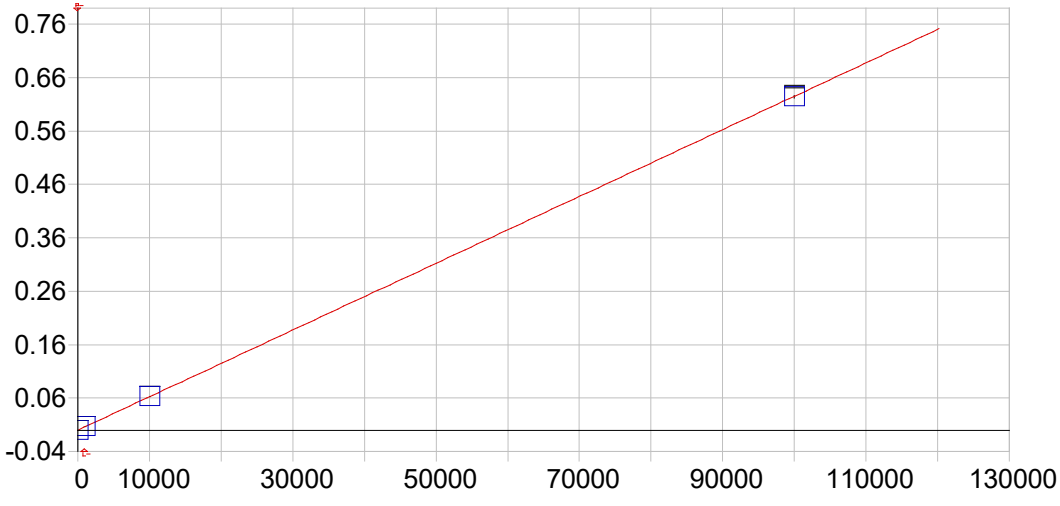


Be 313.107 {108}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000097	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999923	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.154017		
Predicted MQL:	0.513389		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00025	-.000	.000	.00002	.000	1
CalStd5=10	10.000	10.332	.332	3.32	.00102	.000	1
CalStd2=0.5	.50000	.66795	.168	33.6	.00008	.000	1
CalStd4=5	5.0000	5.2018	.202	4.04	.00052	.000	1
CalStd9=100	1000.0	1002.0	1.99	.199	.09704	.000	1
CalStd3=1	1.0000	1.1129	.113	11.3	.00012	.000	1
CalStd8=100	100.00	97.194	-2.81	-2.81	.00943	.000	1

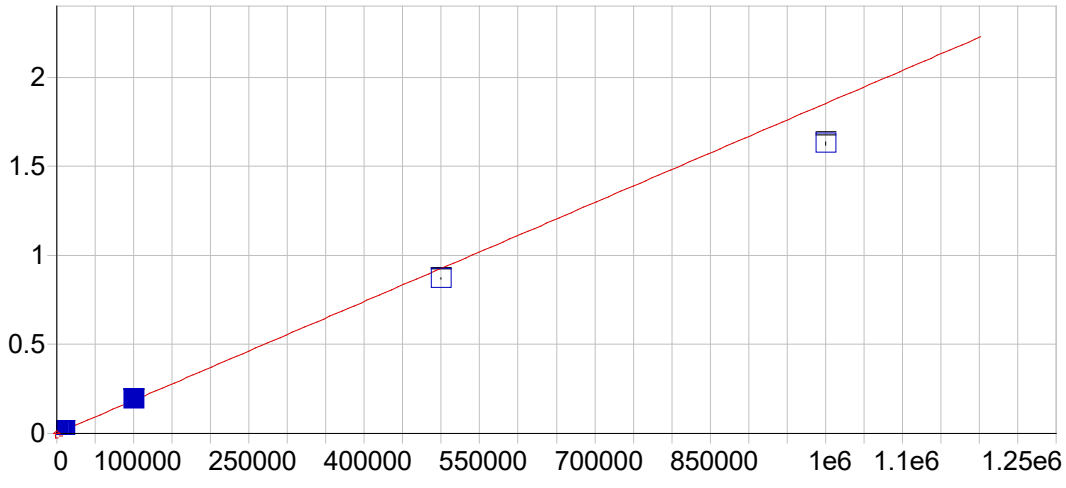


Ca 184.006 {483}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000218	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	1.755192		
Predicted MQL:	5.850640		

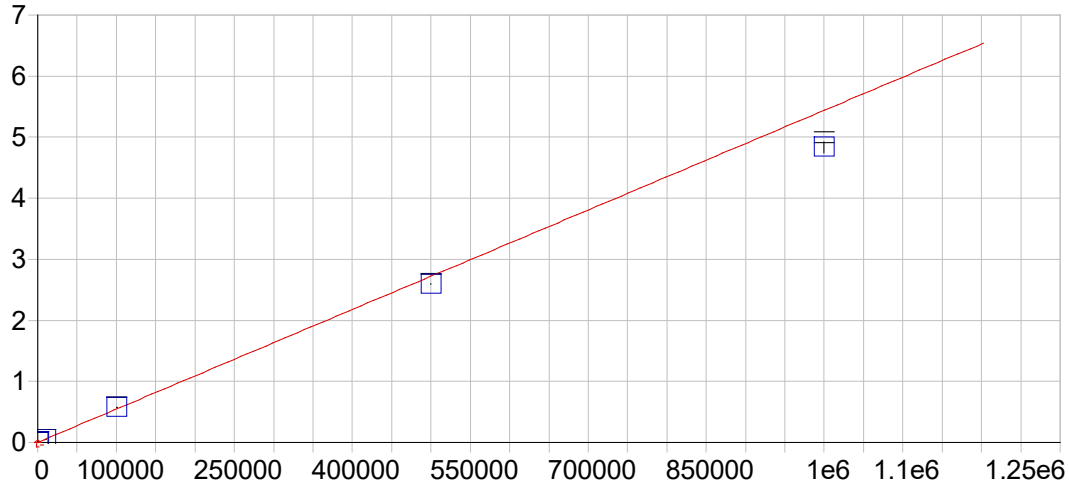
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.11891	-.119	.000	-.00022	.000	1
CalStd10=10	10000.	10034.	34.4	.344	.06252	.000	1
CalStd13=10	100000.	99849.	-151.	-.151	.62405	.002	1
CalStd9=100	1000.0	1117.0	117.	11.7	.00677	.000	1



Ca 315.887 {107}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000086		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998984		Status:	OK.	
Std Error of Est:	0.000314				
Predicted MDL:	4.207918				
Predicted MQL:	14.026392				

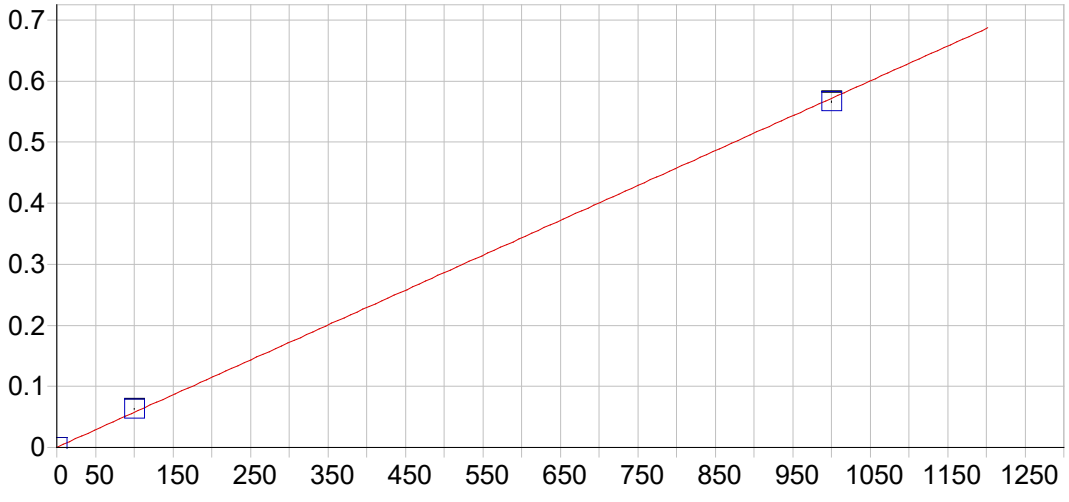
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-28.349	-28.3	.000	.00003	.000	1
CalStd10=10	10000.	9902.5	-97.5	-.975	.01843	.000	1
CalStd13=10	100000.	103510.	3510.	3.51	.19187	.000	1
CalStd14=50	500000.	470460.	-29500.	-5.91	.87177	.004	1
CalStd9=100	1000.0	1040.7	40.7	4.07	.00201	.000	1
CalibStd15=	1000000.	878720.	-121000.	-12.1	1.6282	.009	1



Ca 317.933 {106}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.002631		Re-Slope:	1.000000	
A1 (Gain):	0.000005		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999505		Status:	OK.	
Std Error of Est:	0.000373				
Predicted MDL:	1.901564				
Predicted MQL:	6.338546				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-14.063	-14.1	.000	.00255	.000	1
CalStd10=10	10000.	9985.2	-14.8	-.148	.05692	.000	1
CalStd13=10	100000.	105880.	5880.	5.88	.57827	.001	1
CalStd14=50	500000.	476510.	-23500.	-4.70	2.5932	.004	1
CalStd9=100	1000.0	1066.4	66.4	6.64	.00843	.000	1
CalibStd15=	1000000.	888700.	-111000.	-11.1	4.8342	.090	1

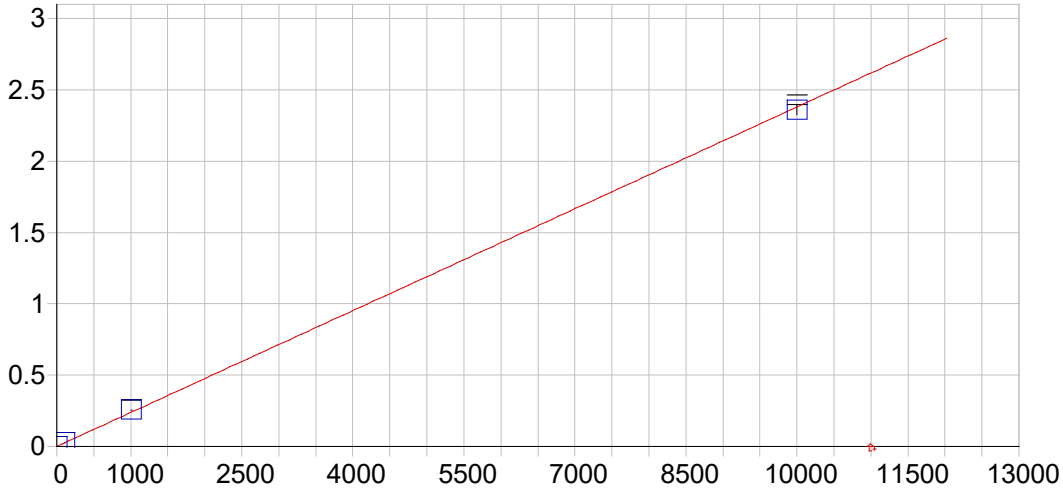


Ca 393.366 { 86}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000447	Re-Slope:	1.000000
A1 (Gain):	0.000571	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999551	Status:	OK.
Std Error of Est:	0.000311		
Predicted MDL:	0.037265		
Predicted MQL:	0.124217		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00853	-.009	.000	.00044	.000	1
CalStd9=100	1000.0	990.52	-9.48	-.948	.56633	.001	1
CalStd8=100	100.00	109.48	9.48	9.48	.06299	.000	1

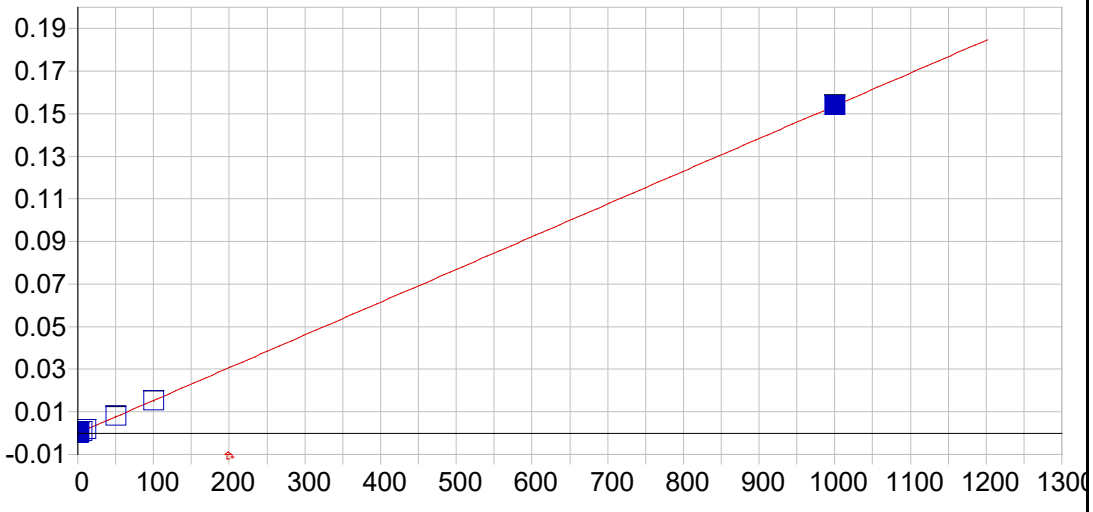


Ca 396.847 { 85}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000195	Re-Slope:	1.000000
A1 (Gain):	0.000238	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999566	Status:	OK.
Std Error of Est:	0.000330		
Predicted MDL:	0.082424		
Predicted MQL:	0.274747		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02533	-.025	.000	.00019	.000	1
CalStd10=10	10000.	9909.0	-91.0	-.910	2.3591	.032	1
CalStd8=100	100.00	119.04	19.0	19.0	.02853	.000	1
CalStd9=100	1000.0	1071.9	71.9	7.19	.25536	.000	1

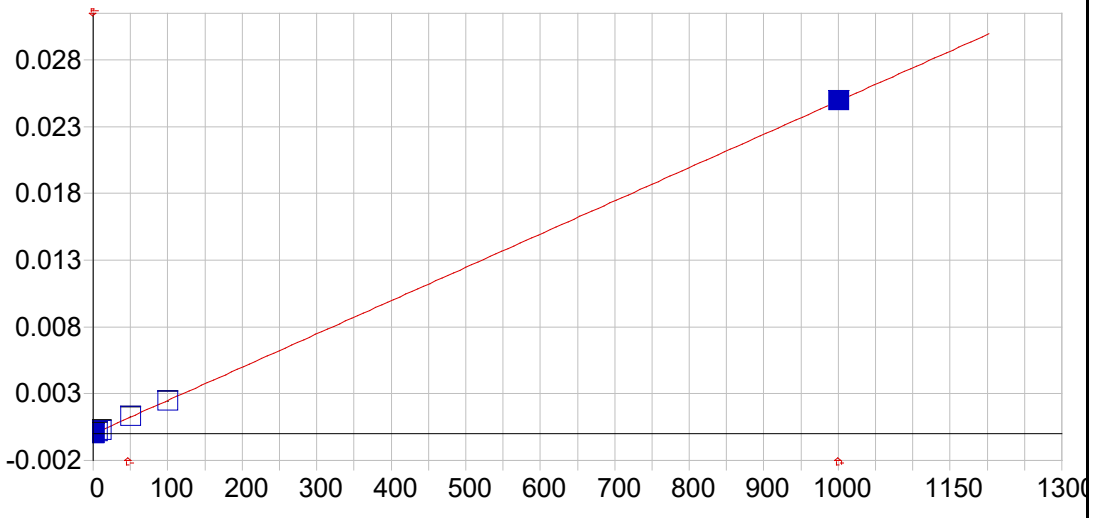


Cd 226.502 {449}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000154	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999956	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.124984		
Predicted MQL:	0.416615		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00007	.000	.000	-.00001	.000	1
CalStd3=1	1.0000	.86385	-.136	-13.6	.00013	.000	1
CalStd2=0.5	.50000	.45235	-.048	-9.53	.00006	.000	1
CalStd4=5	5.0000	5.2234	.223	4.47	.00080	.000	1
CalStd5=10	10.000	10.418	.418	4.18	.00160	.000	1
CalStd9=100	1000.0	1000.3	.287	.029	.15380	.000	1
CalStd8=100	100.00	98.234	-1.77	-1.77	.01510	.000	1
CalStd7=50	50.000	51.022	1.02	2.04	.00784	.000	1

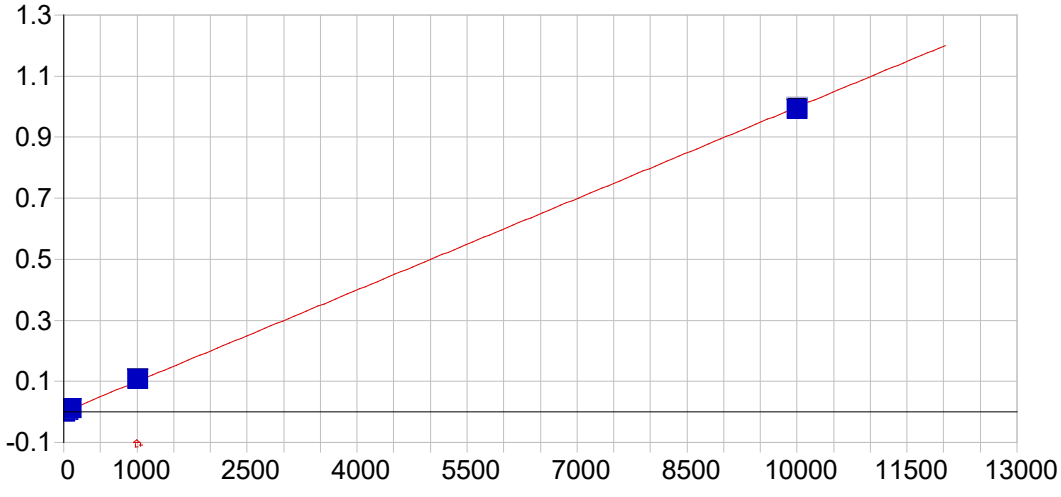


Cd 228.802 {448}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000025	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.441163		
Predicted MQL:	1.470543		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05367	-.054	.000	.00000	.000	1
CalStd3=1	1.0000	1.0652	.065	6.52	.00003	.000	1
CalStd2=0.5	.50000	.69417	.194	38.8	.00002	.000	1
CalStd4=5	5.0000	5.2076	.208	4.15	.00013	.000	1
CalStd5=10	10.000	10.523	.523	5.23	.00026	.000	1
CalStd9=100	1000.0	1001.4	1.35	.135	.02496	.000	1
CalStd8=100	100.00	97.881	-2.12	-2.12	.00244	.000	1
CalStd7=50	50.000	51.104	1.10	2.21	.00127	.000	1

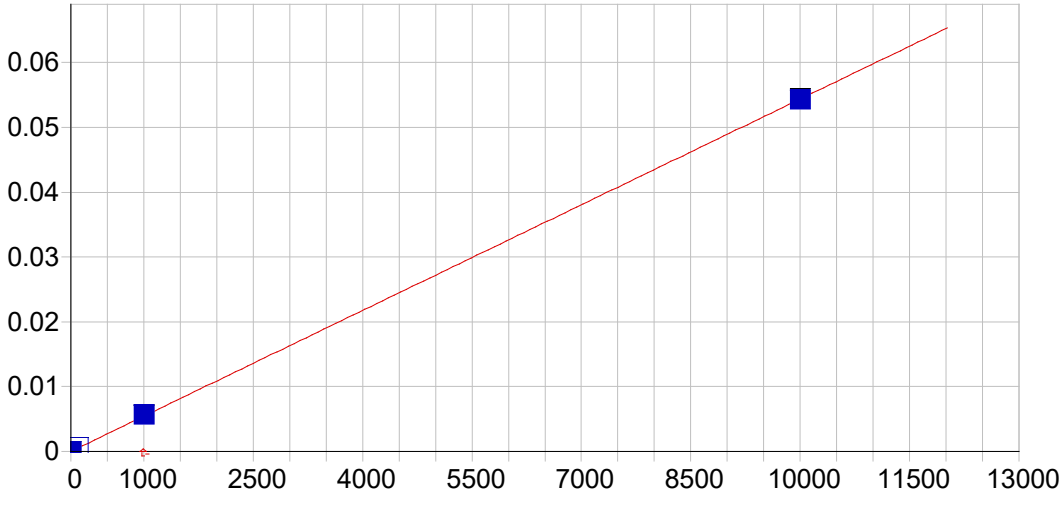


Co 228.616 {447}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000100	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999766	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.229233		
Predicted MQL:	0.764109		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00055	-.001	.000	-.00001	.000	1
CalStd7=50	50.000	54.803	4.80	9.61	.00547	.000	1
CalStd5=10	10.000	11.117	1.12	11.2	.00110	.000	1
CalStd4=5	5.0000	5.6771	.677	13.5	.00055	.000	1
CalStd8=100	100.00	104.69	4.69	4.69	.01049	.000	1
CalStd9=100	1000.0	1061.9	61.9	6.19	.10654	.000	1
CalStd3=1	1.0000	1.1032	.103	10.3	.00010	.000	1
CalStd10=10	10000.	9926.7	-73.3	-.733	.99636	.002	1

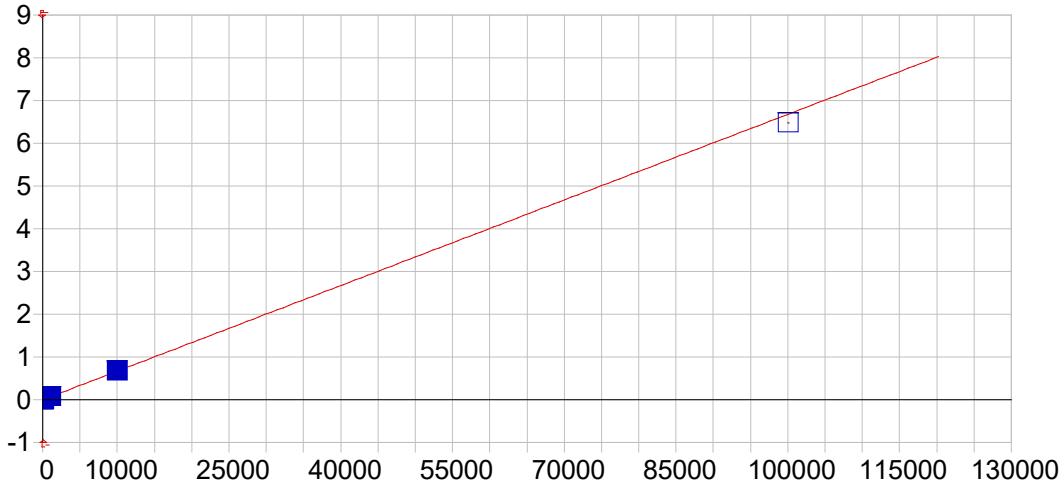


Co 238.892 {141}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999971	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.486362		
Predicted MQL:	1.621205		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00269	-.003	.000	.00001	.000	1
CalStd9=100	1000.0	1023.9	23.9	2.39	.00558	.000	1
CalStd10=10	10000.	9975.5	-24.5	-.245	.05426	.000	1
CalStd8=100	100.00	100.54	.545	.545	.00055	.000	1

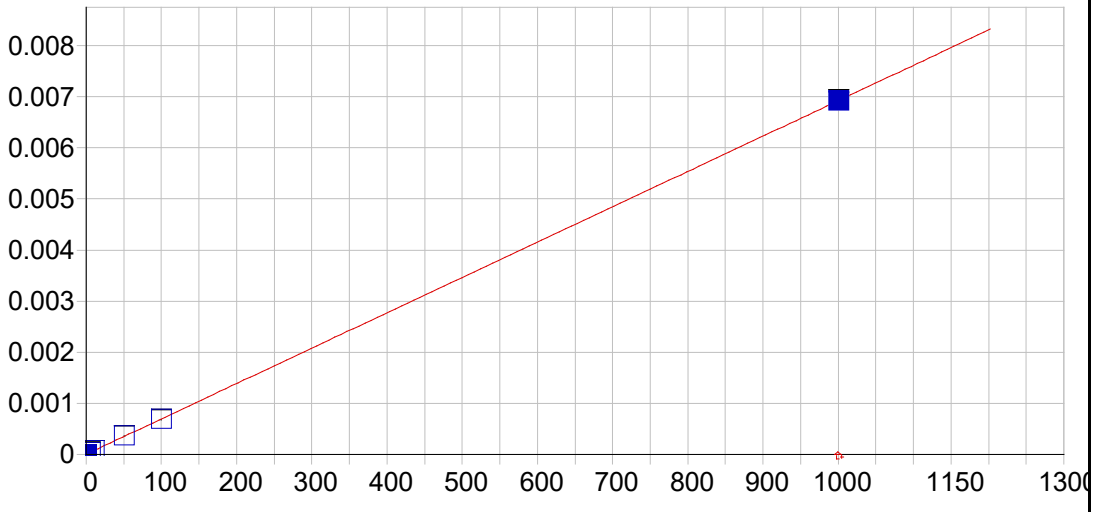


Cr 205.560 {464}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000062	Re-Slope:	1.000000
A1 (Gain):	0.000067	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998795	Status:	OK.
Std Error of Est:	0.000360		
Predicted MDL:	0.221181		
Predicted MQL:	0.737269		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.1050	-1.10	.000	-.00001	.000	1
CalStd5=10	10.000	10.354	.354	3.54	.00075	.000	1
CalStd7=50	50.000	54.751	4.75	9.50	.00372	.000	1
CalStd9=100	1000.0	1088.4	88.4	8.84	.07273	.000	1
CalStd8=100	100.00	105.89	5.89	5.89	.00713	.000	1
CalStd4=5	5.0000	4.9430	-.057	-1.14	.00039	.000	1
CalStd3=1	1.0000	.31666	-.683	-68.3	.00008	.000	1
CalStd10=10	10000.	10131.	131.	1.31	.67647	.001	1
CalStd12=10	100000.	97071.	-2930.	-2.93	6.4814	.004	1

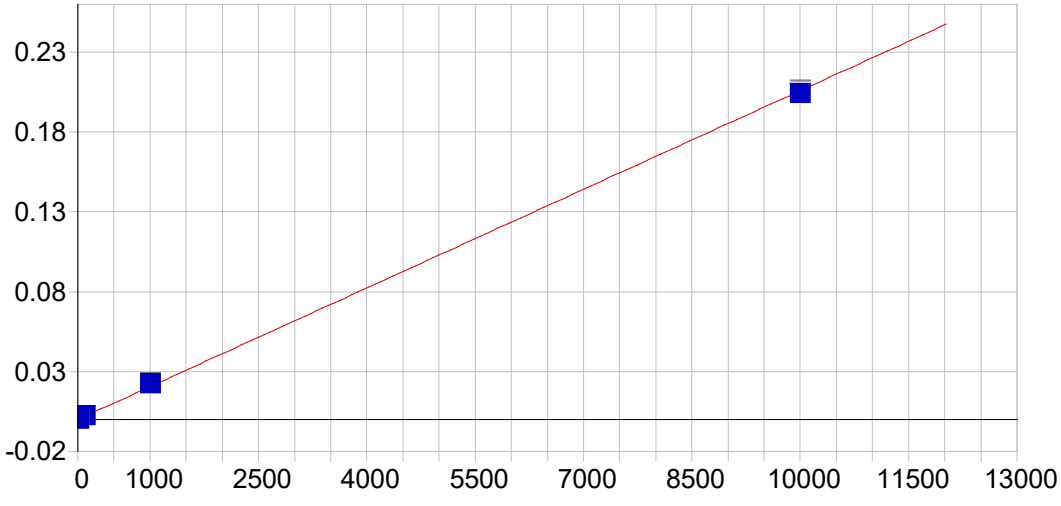


Cr 267.716 {126}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.441890		
Predicted MQL:	1.472965		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00093	-.001	.000	.00000	.000	1
CalStd5=10	10.000	10.395	.395	3.95	.00007	.000	1
CalStd7=50	50.000	51.461	1.46	2.92	.00036	.000	1
CalStd9=100	1000.0	999.07	-.928	-.093	.00692	.000	1
CalStd8=100	100.00	98.403	-1.60	-1.60	.00068	.000	1
CalStd4=5	5.0000	5.6686	.669	13.4	.00004	.000	1

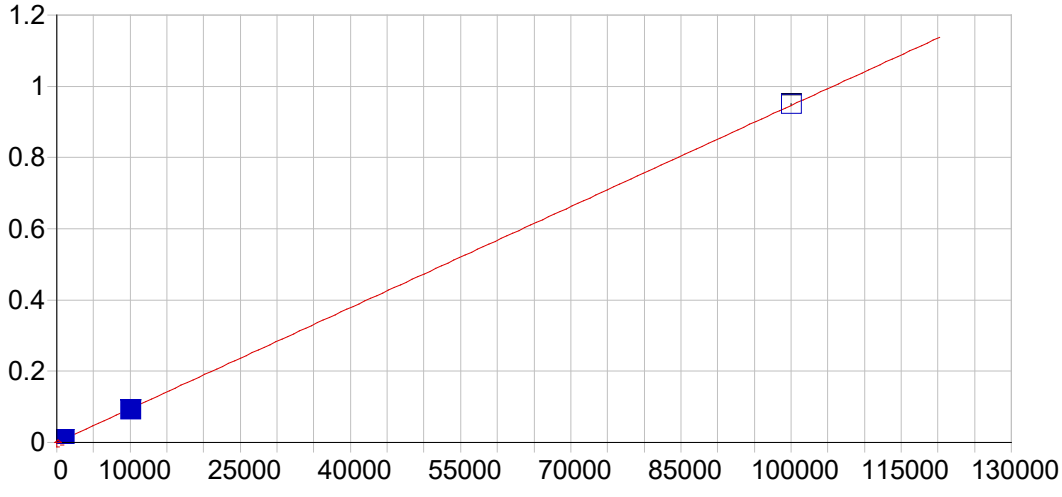


Cu 223.008 {451}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000021	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999571	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	1.075622		
Predicted MQL:	3.585406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00488	-.005	.000	-.00000	.000	1
CalStd9=100	1000.0	1083.2	83.2	8.32	.02249	.000	1
CalStd8=100	100.00	109.09	9.09	9.09	.00226	.000	1
CalStd5=10	10.000	13.230	3.23	32.3	.00027	.000	1
CalStd10=10	10000.	9904.5	-95.5	-.955	.20581	.000	1

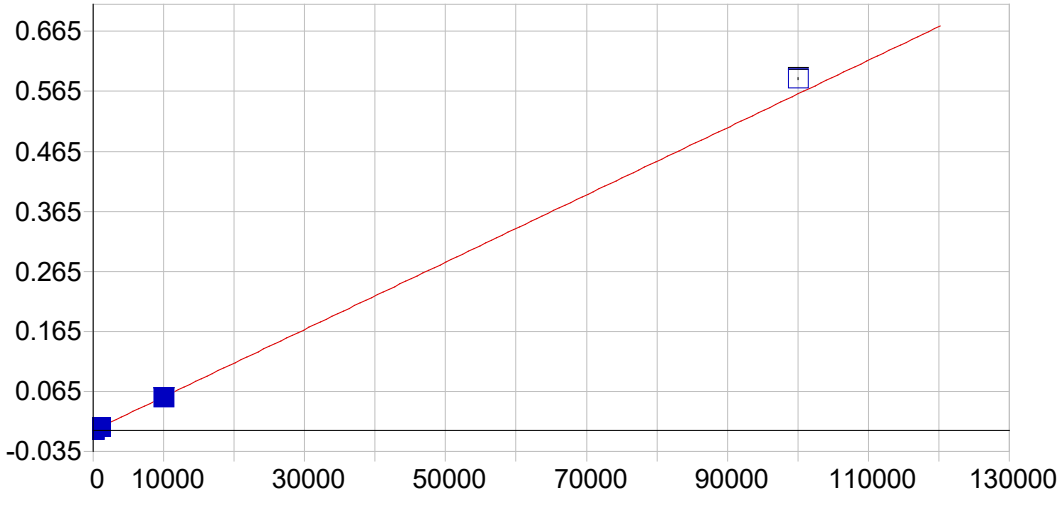


Cu 324.754 {104}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000070	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	1.802977		
Predicted MQL:	6.009922		

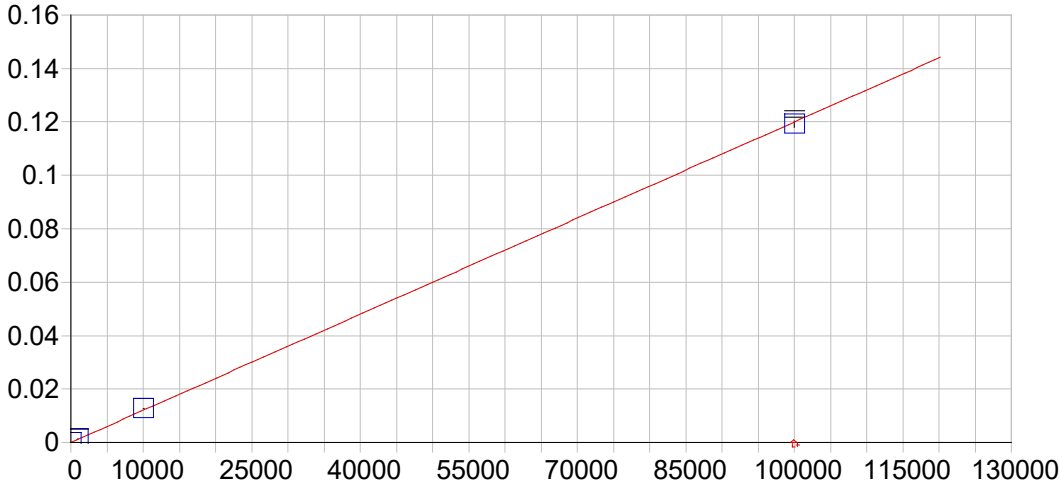
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00235	-.002	.000	.00007	.000	1
CalStd9=100	1000.0	1031.4	31.4	3.14	.00982	.000	1
CalStd8=100	100.00	102.53	2.53	2.53	.00104	.000	1
CalStd10=10	10000.	9635.0	-365.	-3.65	.09119	.000	1
CalStd12=10	100000.	100330.	331.	.331	.94919	.001	1



Cu 327.396 {103}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999401		Status:	OK.	
Std Error of Est:	0.000145				
Predicted MDL:	4.548082				
Predicted MQL:	15.160272				

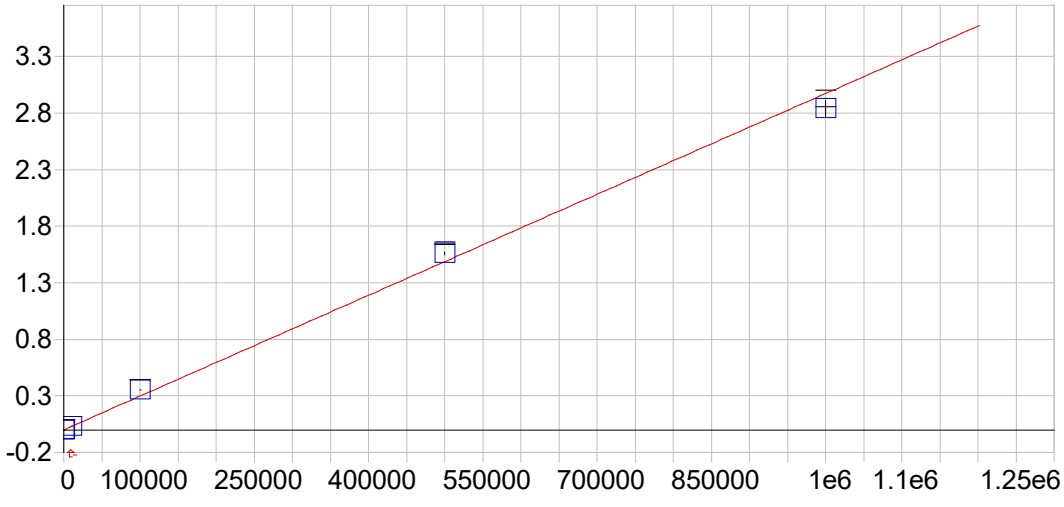
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0291	-2.03	.000	-.00002	.000	1
CalStd6=20	20.000	19.067	-.933	-4.66	.00010	.000	1
CalStd7=50	50.000	51.721	1.72	3.44	.00028	.000	1
CalStd8=100	100.00	96.692	-3.31	-3.31	.00053	.000	1
CalStd9=100	1000.0	1045.2	45.2	4.52	.00585	.000	1
CalStd10=10	10000.	9741.4	-259.	-2.59	.05460	.000	1
CalStd4=5	5.0000	4.7450	-.255	-5.10	.00002	.000	1
CalStd5=10	10.000	8.9574	-1.04	-10.4	.00004	.000	1
CalStd12=10	100000.	104560.	4560.	4.56	.58613	.002	1



Fe 234.349 {144}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000018		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999846		Status:	OK.	
Std Error of Est:	0.000010				
Predicted MDL:	0.861600				
Predicted MQL:	2.872000				

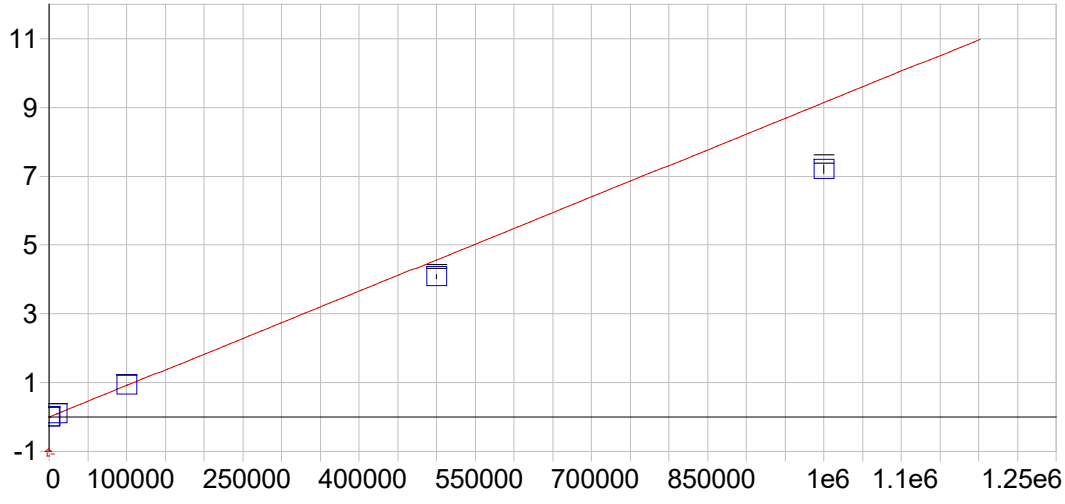
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.12786	-.128	.000	.00002	.000	1
CalStd10=10	10000.	10487.	487.	4.87	.01260	.000	1
CalStd13=10	100000.	99428.	-572.	-.572	.11927	.001	1
CalStd9=100	1000.0	1084.9	84.9	8.49	.00132	.000	1



Fe 239.562 {140}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.997849		Status:	OK.	
Std Error of Est:	0.000303				
Predicted MDL:	2.522070				
Predicted MQL:	8.406899				

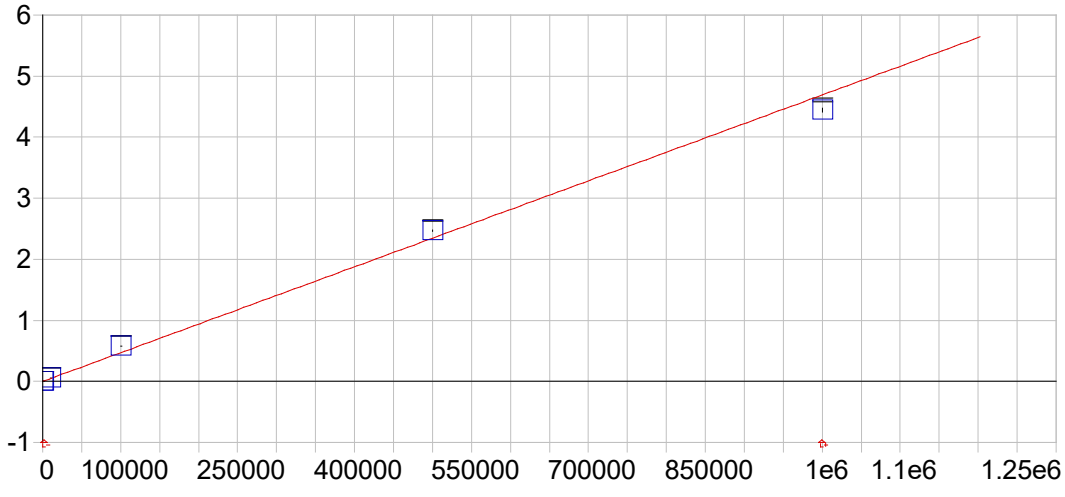
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.50282	-.503	.000	.00000	.000	1
CalStd10=10	10000.	11131.	1130.	11.3	.03310	.000	1
CalStd13=10	100000.	118890.	18900.	18.9	.35349	.001	1
CalStd14=50	500000.	524610.	24600.	4.92	1.5598	.013	1
CalStd9=100	1000.0	1196.5	196.	19.6	.00356	.000	1
CalibStd15=	1000000.	955180.	-44800.	-4.48	2.8400	.074	1



Fe 259.940 {129}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000092		Re-Slope:	1.000000	
A1 (Gain):	0.000009		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999486		Status:	OK.	
Std Error of Est:	0.000342				
Predicted MDL:	1.183957				
Predicted MQL:	3.946525				

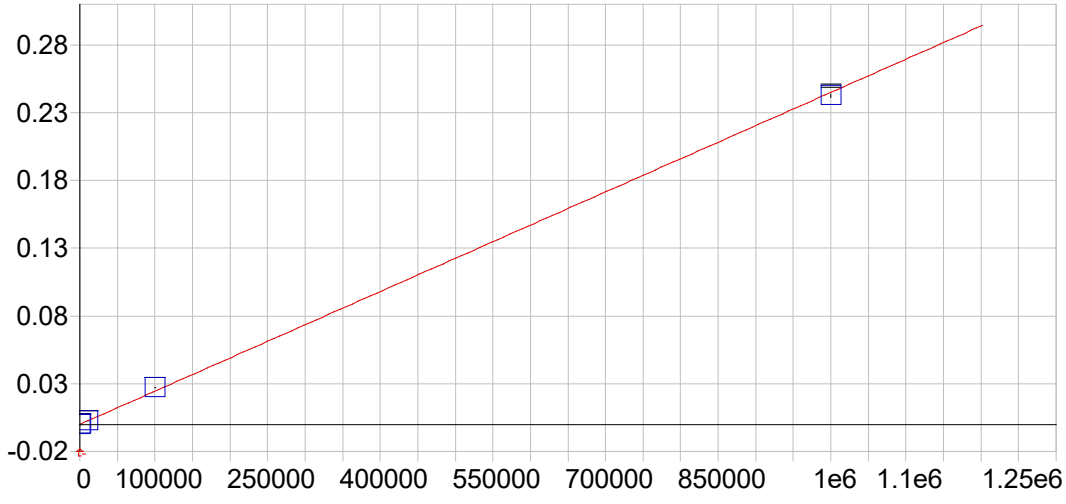
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-10.773	-10.8	.000	-.00001	.000	1
CalStd10=10	10000.	9631.3	-369.	-3.69	.08812	.000	1
CalStd13=10	100000.	100820.	818.	.818	.92151	.001	1
CalStd14=50	500000.	446580.	-53400.	-10.7	4.0816	.053	1
CalStd9=100	1000.0	1022.8	22.8	2.28	.00944	.000	1
CalibStd15=	1000000.	788000.	-212000.	-21.2	7.2020	.119	1



Mg 202.582 {466}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000120		Re-Slope:	1.000000	
A1 (Gain):	0.000005		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.996856		Status:	OK.	
Std Error of Est:	0.000579				
Predicted MDL:	3.398966				
Predicted MQL:	11.329886				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.83751	-.838	.000	-.00012	.000	1
CalStd13=10	100000.	123520.	23500.	23.5	.57946	.002	1
CalStd10=10	10000.	11855.	1860.	18.6	.05551	.000	1
CalStd14=50	500000.	526460.	26500.	5.29	2.4701	.014	1
CalStd9=100	1000.0	1416.1	416.	41.6	.00652	.000	1
CalibStd15=	1000000.	947750.	-52200.	-5.22	4.4469	.031	1

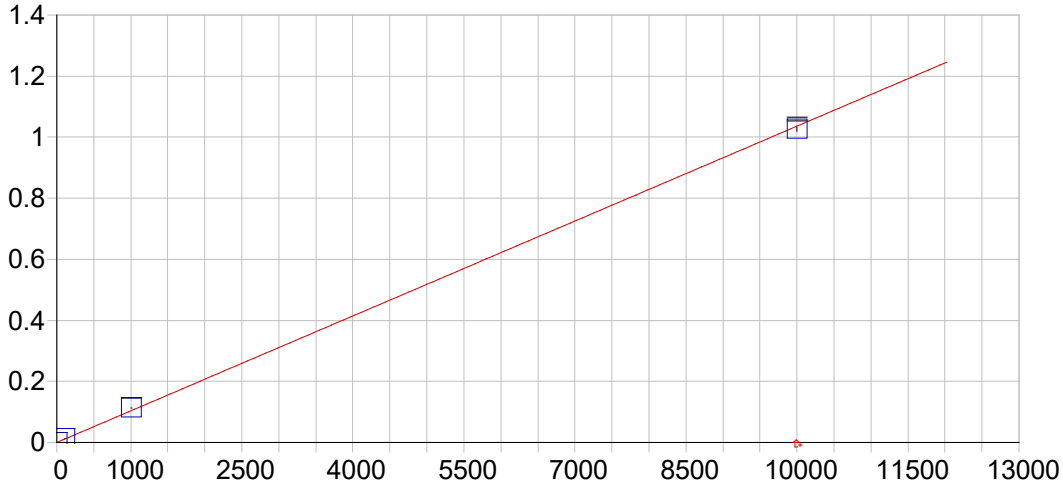


Mg 279.079 {121}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999504	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	18.038212		
Predicted MQL:	60.127372		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.22864	-.229	.000	.00000	.000	1
CalStd13=10	100000.	109890.	9890.	9.89	.02692	.000	1
CalStd10=10	10000.	10266.	266.	2.66	.00252	.000	1
CalStd9=100	1000.0	1113.4	113.	11.3	.00027	.000	1
CalibStd15=	1000000.	989730.	-10300.	-1.03	.24248	.001	1

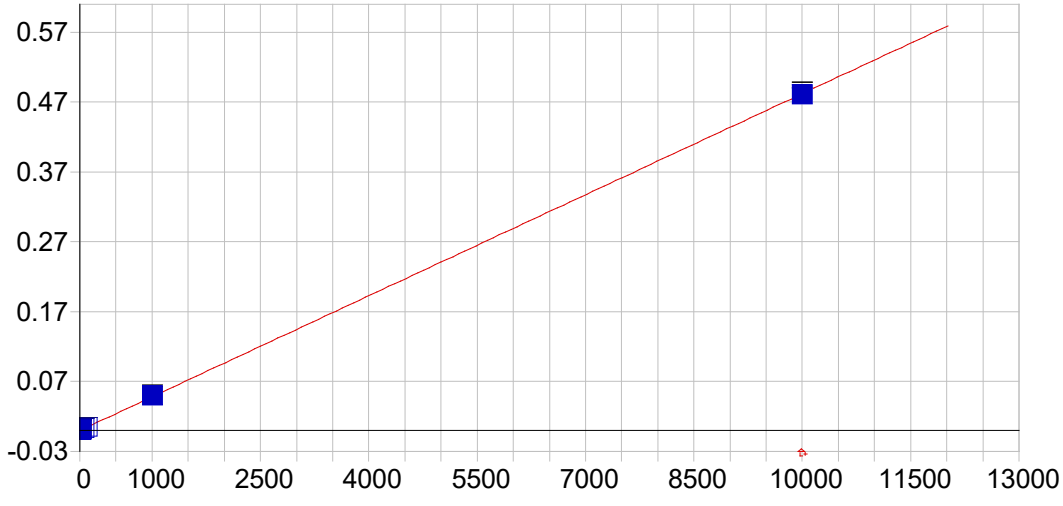


Mg 280.270 {120}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000102	Re-Slope:	1.000000
A1 (Gain):	0.000104	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999570	Status:	OK.
Std Error of Est:	0.000143		
Predicted MDL:	0.017315		
Predicted MQL:	0.057716		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01939	-.019	.000	.00010	.000	1
CalStd9=100	1000.0	1084.9	84.9	8.49	.11250	.001	1
CalStd10=10	10000.	9903.2	-96.8	-.968	1.0261	.005	1
CalStd8=100	100.00	111.86	11.9	11.9	.01169	.000	1

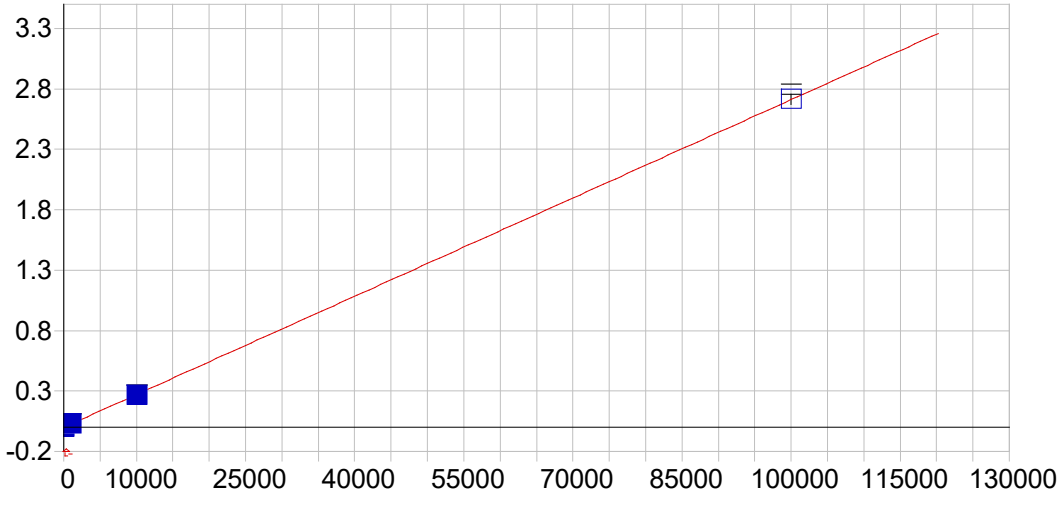


Mn 257.610 {131}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000048	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.038900		
Predicted MQL:	0.129668		

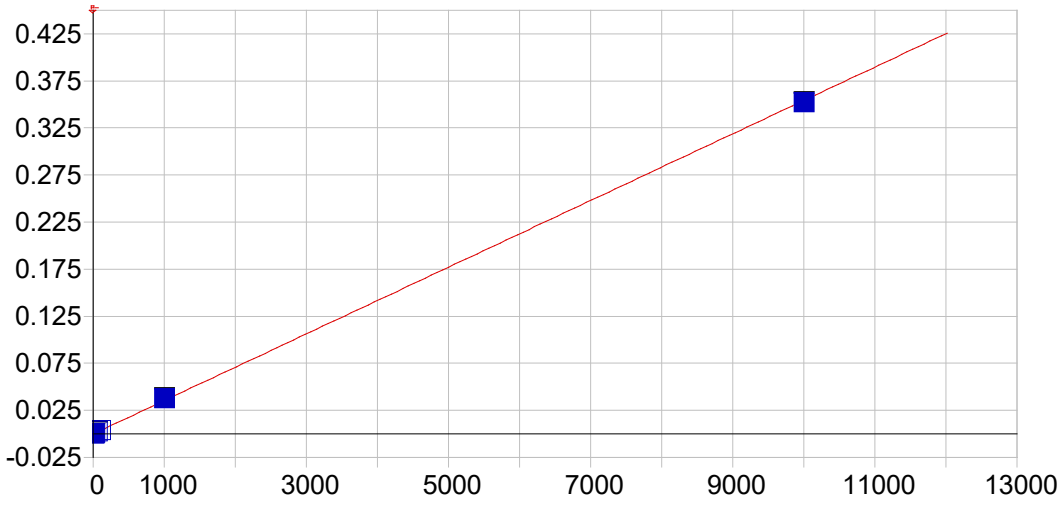
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00273	-.003	.000	-.00001	.000	1
CalStd5=10	10.000	11.150	1.15	11.5	.00053	.000	1
CalStd7=50	50.000	53.804	3.80	7.61	.00259	.000	1
CalStd6=20	20.000	22.463	2.46	12.3	.00108	.000	1
CalStd8=100	100.00	101.98	1.98	1.98	.00491	.000	1
CalStd4=5	5.0000	5.9168	.917	18.3	.00028	.000	1
CalStd9=100	1000.0	1033.5	33.5	3.35	.04982	.000	1
CalStd10=10	10000.	9956.1	-43.9	-.439	.47995	.004	1



Mn 259.373 {130}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000027		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999976		Status:	OK.	
Std Error of Est:	0.000089				
Predicted MDL:	0.342930				
Predicted MQL:	1.143098				

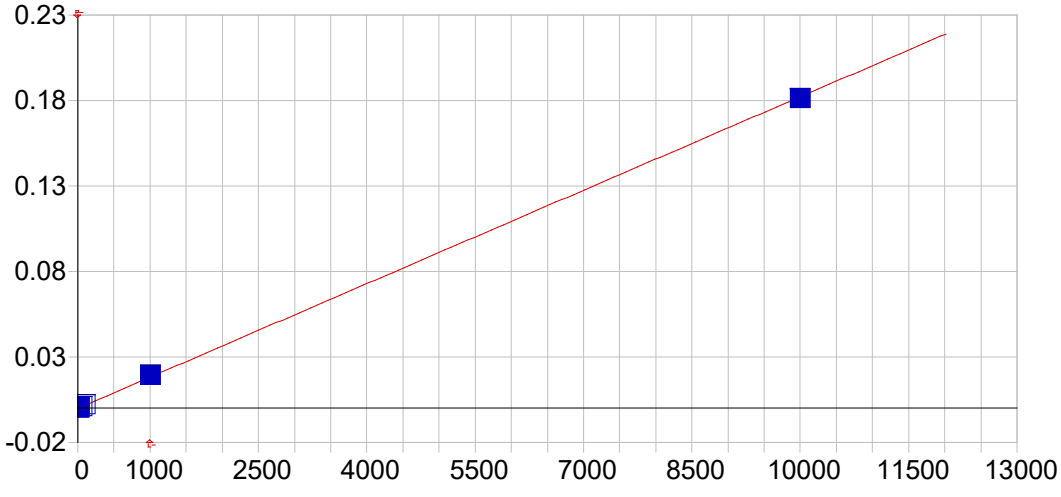
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02031	-.020	.000	.00000	.000	1
CalStd10=10	10000.	9808.0	-192.	-1.92	.26613	.000	1
CalStd9=100	1000.0	1038.0	38.0	3.80	.02816	.000	1
CalStd12=10	100000.	100150.	154.	.154	2.7147	.042	1



Mo 202.030 {466}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000035		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999747		Status:	OK.	
Std Error of Est:	0.000007				
Predicted MDL:	0.389002				
Predicted MQL:	1.296674				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00325	-.003	.000	.00001	.000	1
CalStd7=50	50.000	54.078	4.08	8.16	.00192	.000	1
CalStd6=20	20.000	22.373	2.37	11.9	.00080	.000	1
CalStd5=10	10.000	11.076	1.08	10.8	.00040	.000	1
CalStd8=100	100.00	103.85	3.85	3.85	.00368	.000	1
CalStd4=5	5.0000	6.2483	1.25	25.0	.00023	.000	1
CalStd9=100	1000.0	1062.4	62.4	6.24	.03764	.000	1
CalStd10=10	10000.	9924.9	-75.1	-.751	.35158	.001	1

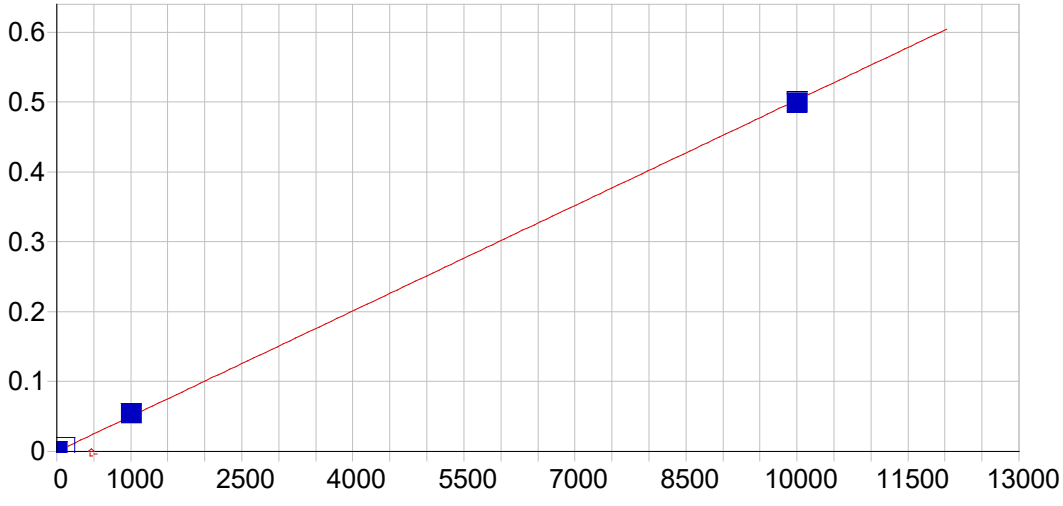


Mo 204.598 {464}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000018	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999767	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.768588		
Predicted MQL:	2.561959		

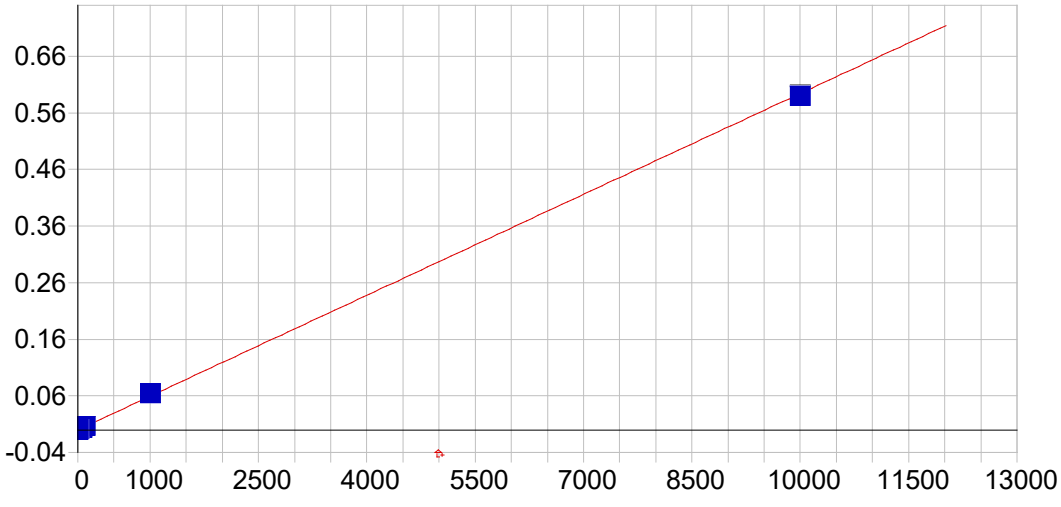
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00401	-.004	.000	-.00000	.000	1
CalStd7=50	50.000	54.147	4.15	8.29	.00098	.000	1
CalStd6=20	20.000	23.094	3.09	15.5	.00042	.000	1
CalStd5=10	10.000	11.943	1.94	19.4	.00022	.000	1
CalStd8=100	100.00	103.04	3.04	3.04	.00187	.000	1
CalStd4=5	5.0000	6.4579	1.46	29.2	.00012	.000	1
CalStd9=100	1000.0	1055.1	55.1	5.51	.01922	.000	1
CalStd10=10	10000.	9931.3	-68.7	-.687	.18095	.000	1



Ni 221.647 {452}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000025		Re-Slope:	1.000000	
A1 (Gain):	0.000050		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999697		Status:	OK.	
Std Error of Est:	0.000058				
Predicted MDL:	0.482038				
Predicted MQL:	1.606794				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01232	-.012	.000	.00002	.000	1
CalStd10=10	10000.	9918.6	-81.4	-.814	.49868	.001	1
CalStd8=100	100.00	105.55	5.55	5.55	.00533	.000	1
CalStd9=100	1000.0	1075.9	75.9	7.59	.05411	.000	1

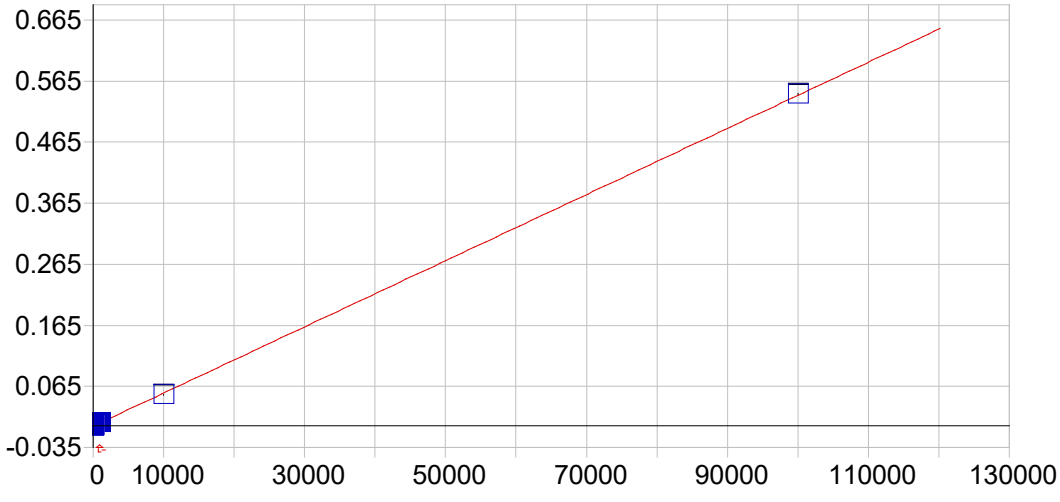


Ni 231.604 {445}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000033	Re-Slope:	1.000000
A1 (Gain):	0.000059	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999679	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.409497		
Predicted MQL:	1.364991		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00087	-.001	.000	-.00003	.000	1
CalStd7=50	50.000	55.033	5.03	10.1	.00324	.000	1
CalStd5=10	10.000	11.009	1.01	10.1	.00062	.000	1
CalStd8=100	100.00	105.54	5.54	5.54	.00623	.000	1
CalStd4=5	5.0000	5.5629	.563	11.3	.00030	.000	1
CalStd9=100	1000.0	1072.7	72.7	7.27	.06367	.000	1
CalStd3=1	1.0000	1.4411	.441	44.1	.00005	.000	1
CalStd10=10	10000.	9914.9	-85.1	-.851	.58982	.001	1

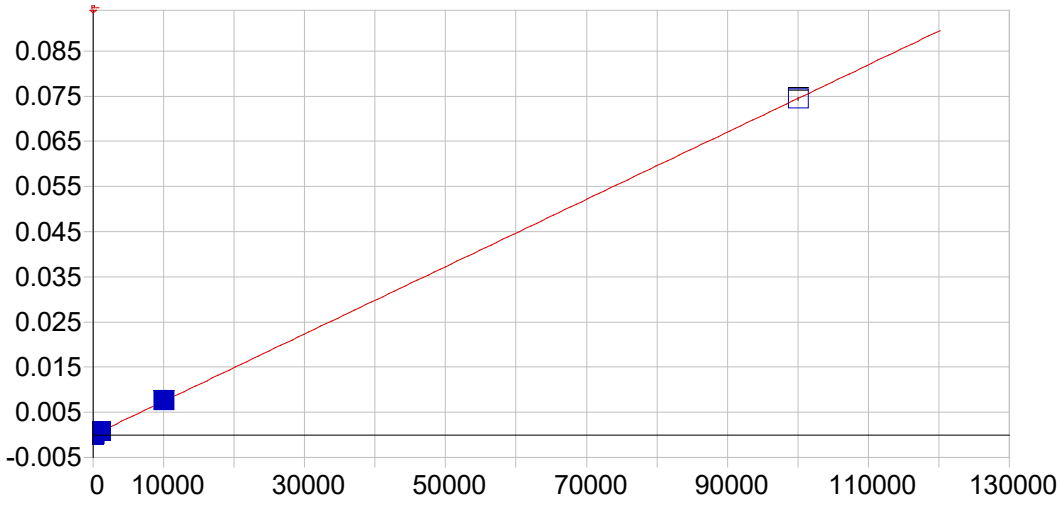


Pb 216.999 {455}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000038	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999833	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	3.893699		
Predicted MQL:	12.978997		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01062	-.011	.000	-.00004	.000	1
CalStd9=100	1000.0	1074.9	74.9	7.49	.00582	.000	1
CalStd10=10	10000.	9462.8	-537.	-5.37	.05122	.000	1
CalStd8=100	100.00	108.05	8.05	8.05	.00055	.000	1
CalStd12=10	100000.	100450.	454.	.454	.54415	.001	1

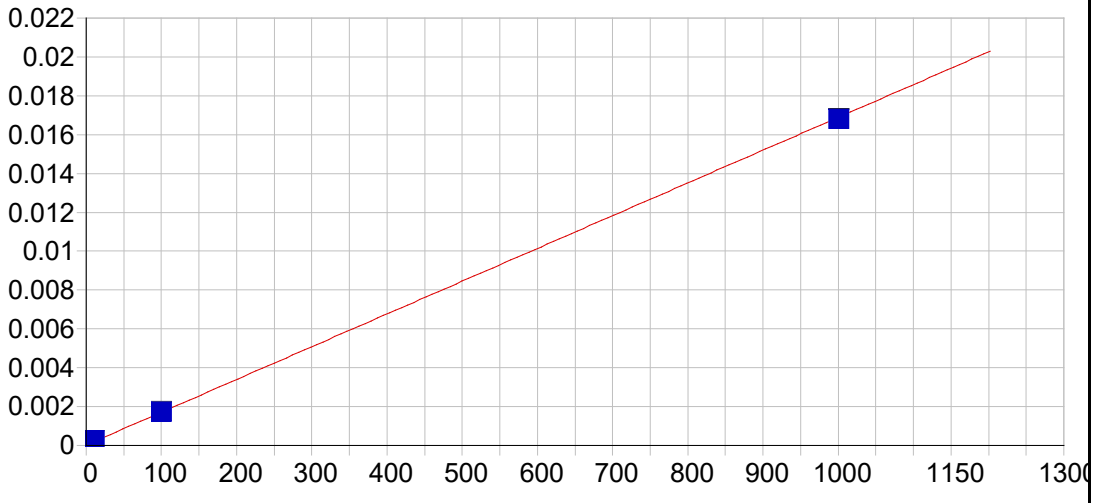


Pb 220.353 {153}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999977	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.946299		
Predicted MQL:	6.487664		

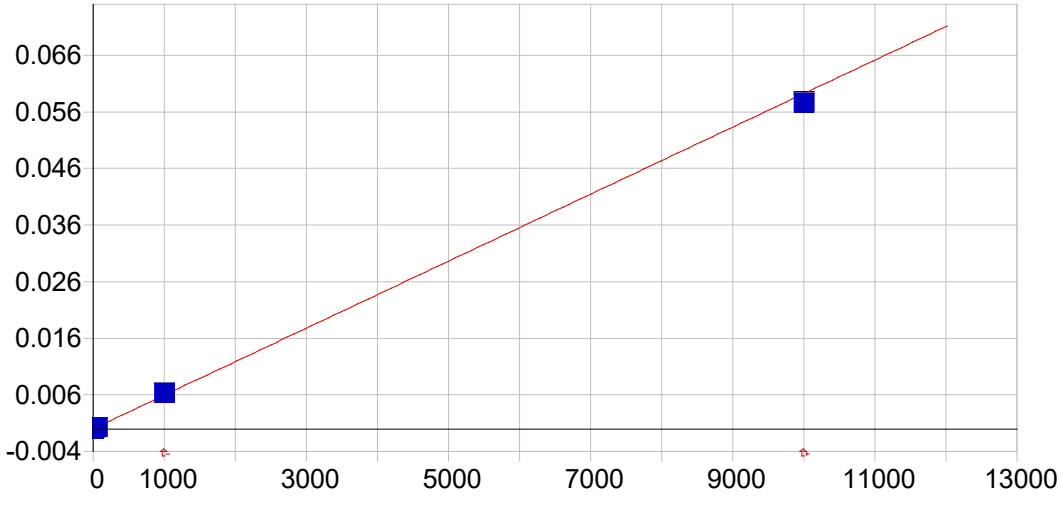
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01042	-.010	.000	-.00000	.000	1
CalStd9=100	1000.0	1061.8	61.8	6.18	.00079	.000	1
CalStd10=10	10000.	10095.	94.8	.948	.00752	.000	1
CalStd8=100	100.00	103.45	3.45	3.45	.00008	.000	1
CalStd12=10	100000.	99840.	-160.	-.160	.07439	.000	1



Pb 220.353 {453}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000023		Re-Slope:	1.000000	
A1 (Gain):	0.000017		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999141		Status:	OK.	
Std Error of Est:	0.000002				
Predicted MDL:	1.539441				
Predicted MQL:	5.131469				

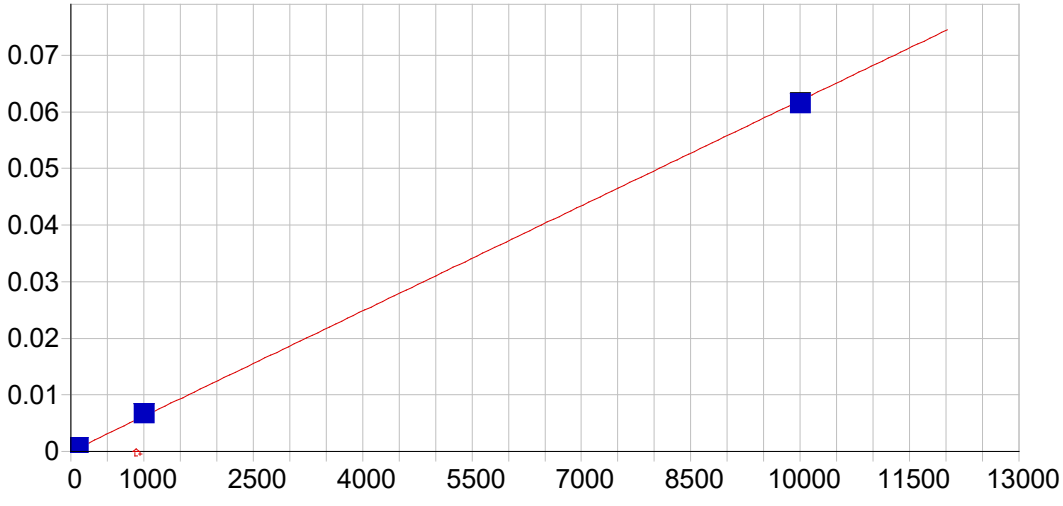
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00376	-.004	.000	.00002	.000	1
CalStd5=10	10.000	12.429	2.43	24.3	.00023	.000	1
CalStd8=100	100.00	100.69	.693	.693	.00172	.000	1
CalStd4=5	5.0000	7.5376	2.54	50.8	.00015	.000	1
CalStd9=100	1000.0	994.34	-5.66	-.566	.01679	.000	1



Sb 206.833 {463}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000023		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999333		Status:	OK.	
Std Error of Est:	0.000090				
Predicted MDL:	2.330123				
Predicted MQL:	7.767078				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.1679	-4.17	.000	-.00000	.000	1
CalStd9=100	1000.0	1044.0	44.0	4.40	.00620	.000	1
CalStd5=10	10.000	8.3218	-1.68	-16.8	.00007	.000	1
CalStd7=50	50.000	48.421	-1.58	-3.16	.00031	.000	1
CalStd10=10	10000.	9722.1	-278.	-2.78	.05758	.000	1

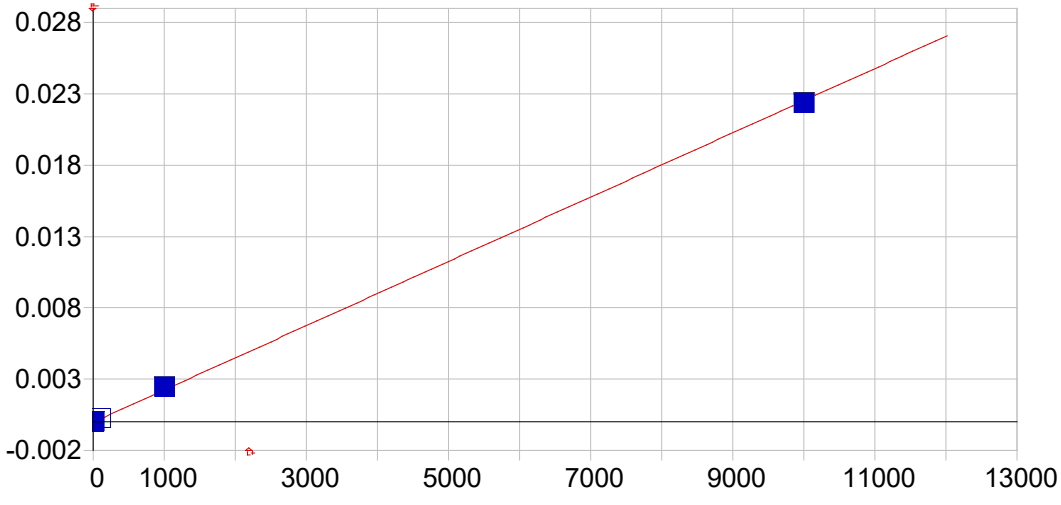


Sb 217.581 {455}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999608	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	2.637687		
Predicted MQL:	8.792291		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00501	-.005	.000	.00002	.000	1
CalStd9=100	1000.0	1073.3	73.3	7.33	.00667	.000	1
CalStd6=20	20.000	22.496	2.50	12.5	.00016	.000	1
CalStd5=10	10.000	12.724	2.72	27.2	.00010	.000	1
CalStd8=100	100.00	106.43	6.43	6.43	.00068	.000	1
CalStd4=5	5.0000	7.3829	2.38	47.7	.00006	.000	1
CalStd10=10	10000.	9912.7	-87.3	-.873	.06146	.000	1

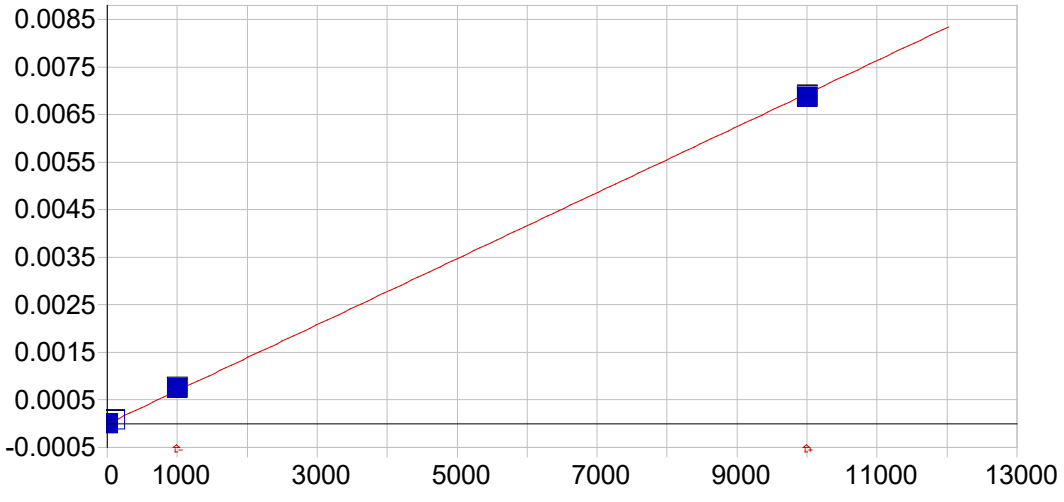


Se 196.090 {472}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000017	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999583	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	6.027582		
Predicted MQL:	20.091940		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00251	-.003	.000	-.00002	.000	1
CalStd9=100	1000.0	1089.3	89.3	8.93	.00244	.000	1
CalStd5=10	10.000	11.232	1.23	12.3	.00001	.000	1
CalStd8=100	100.00	104.77	4.77	4.77	.00022	.000	1
CalStd10=10	10000.	9904.7	-95.3	-.953	.02232	.000	1

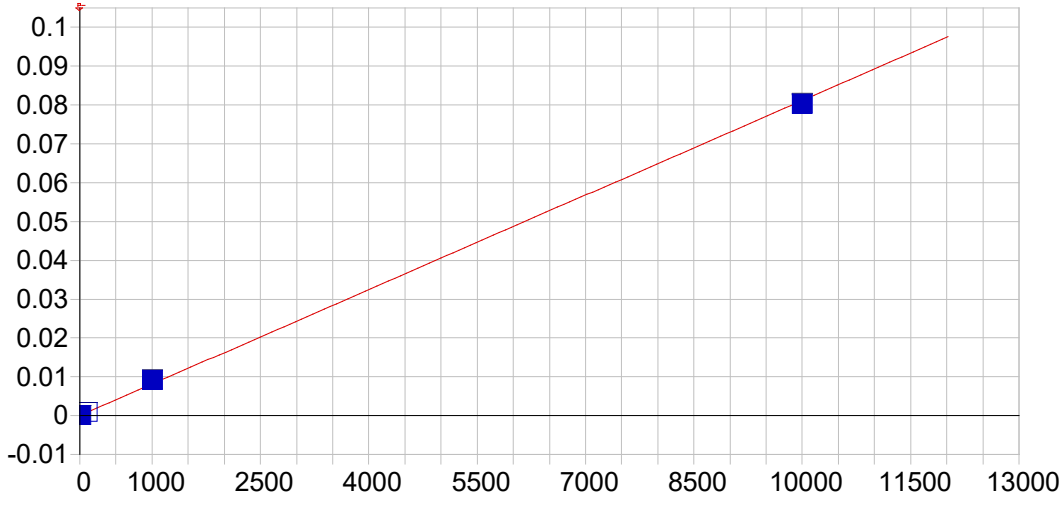


Se 206.279 {463}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999480	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	22.528925		
Predicted MQL:	75.096418		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02621	-.026	.000	-.00000	.000	1
CalStd9=100	1000.0	1083.3	83.3	8.33	.00075	.000	1
CalStd10=10	10000.	9897.8	-102.	-1.02	.00688	.000	1
CalStd8=100	100.00	118.90	18.9	18.9	.00008	.000	1

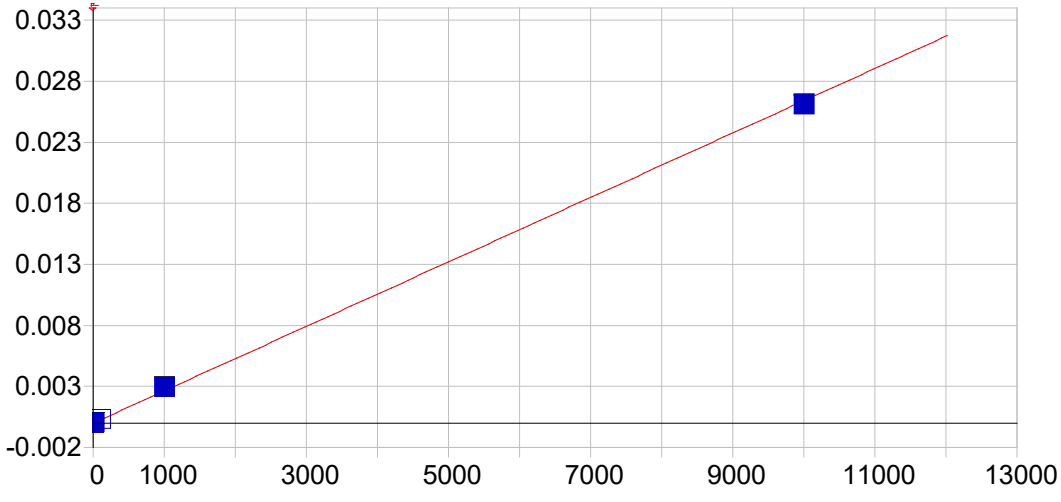


Tl 190.856 {476}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999296	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	1.820962		
Predicted MQL:	6.069872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00366	-.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1112.3	112.	11.2	.00902	.000	1
CalStd8=100	100.00	111.19	11.2	11.2	.00090	.000	1
CalStd5=10	10.000	11.547	1.55	15.5	.00009	.000	1
CalStd10=10	10000.	9875.0	-125.	-1.25	.08013	.000	1

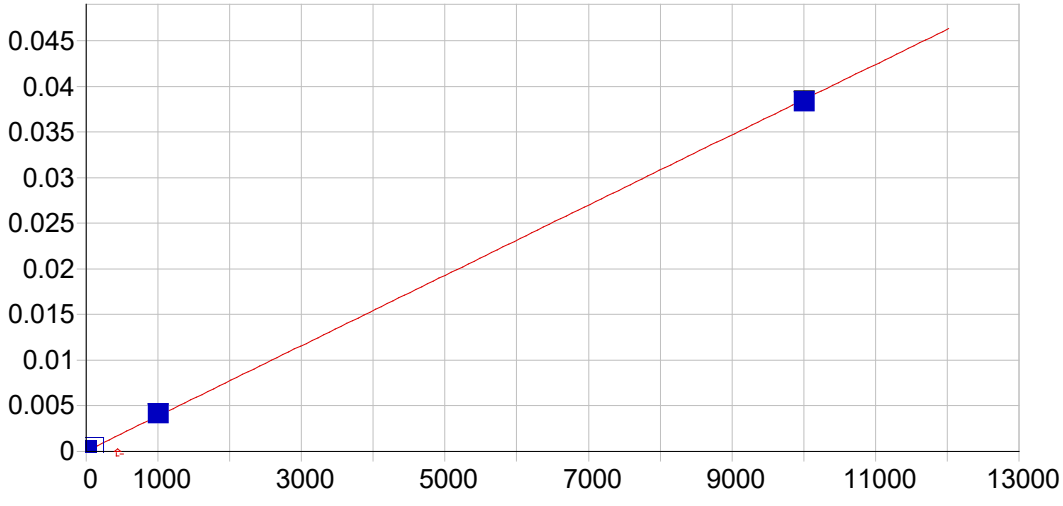


Tl 190.856 {477}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999206	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.877710		
Predicted MQL:	12.925700		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00607	-.006	.000	-.00001	.000	1
CalStd9=100	1000.0	1114.3	114.	11.4	.00294	.000	1
CalStd8=100	100.00	111.80	11.8	11.8	.00029	.000	1
CalStd5=10	10.000	13.880	3.88	38.8	.00003	.000	1
CalStd10=10	10000.	9870.0	-130.	-1.30	.02605	.000	1

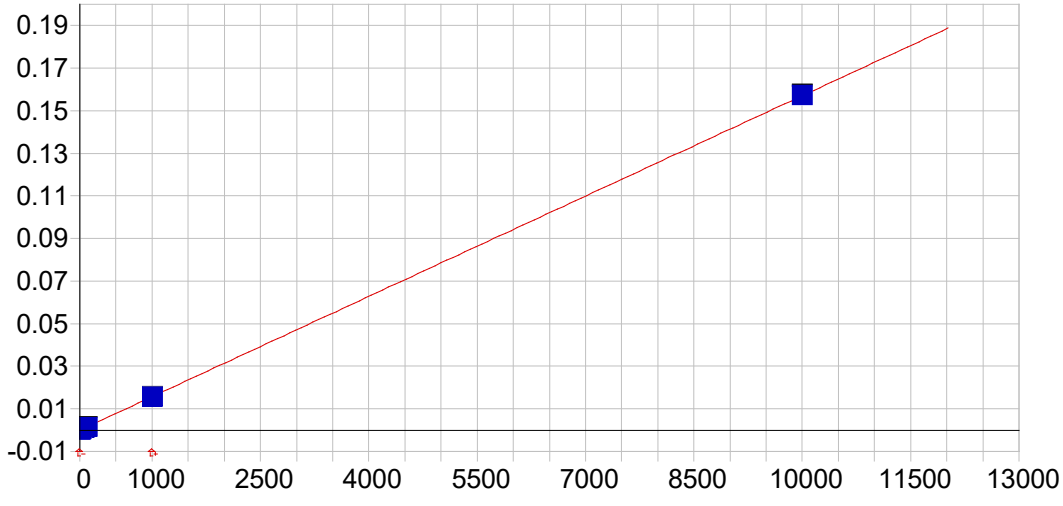


V 290.882 {116}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	2.871588		
Predicted MQL:	9.571961		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00745	-.007	.000	.00004	.000	1
CalStd9=100	1000.0	1054.5	54.5	5.45	.00410	.000	1
CalStd10=10	10000.	9943.0	-57.0	-.570	.03834	.000	1
CalStd8=100	100.00	102.58	2.58	2.58	.00043	.000	1

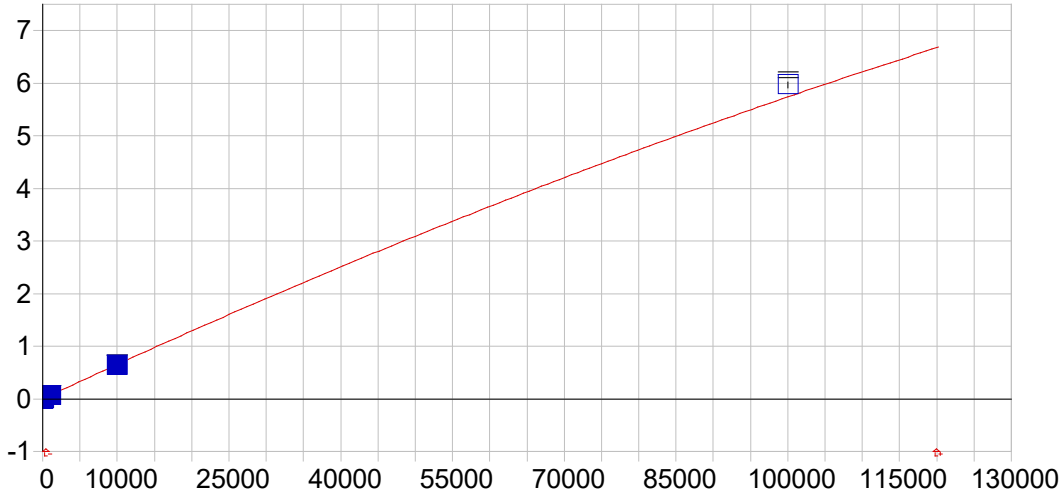


V 292.402 {115}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000016	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.408273		
Predicted MQL:	1.360909		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00076	-.001	.000	.00000	.000	1
CalStd7=50	50.000	50.065	.065	.131	.00079	.000	1
CalStd9=100	1000.0	990.04	-9.96	-.996	.01553	.000	1
CalStd6=20	20.000	21.226	1.23	6.13	.00034	.000	1
CalStd5=10	10.000	10.537	.537	5.37	.00017	.000	1
CalStd8=100	100.00	96.842	-3.16	-3.16	.00152	.000	1
CalStd10=10	10000.	10011.	11.3	.113	.15698	.000	1

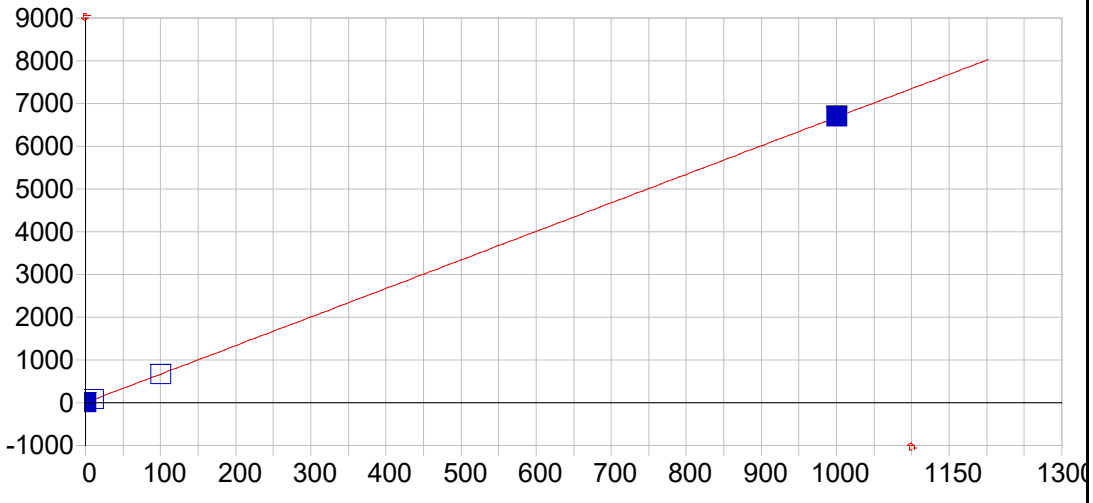


Zn 206.200 {463}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000056	Re-Slope:	1.000000
A1 (Gain):	0.000066	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999703	Status:	OK.
Std Error of Est:	0.000180		
Predicted MDL:	0.224830		
Predicted MQL:	0.749433		

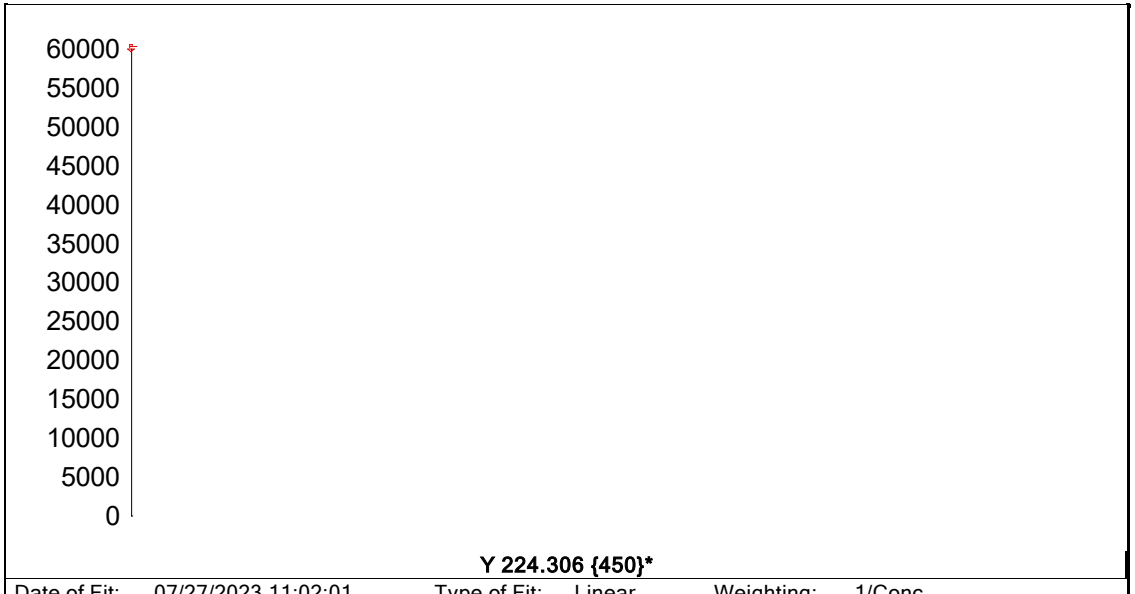
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9730.8	-269.	-2.69	.63651	.001	1
Blank	.00000	-1.2120	-1.21	.000	-.00002	.000	1
CalStd9=100	1000.0	1023.2	23.2	2.32	.06777	.000	1
CalStd12=10	100000.	104730.	4730.	4.73	5.9665	.055	1
CalStd5=10	10.000	10.251	.251	2.51	.00073	.000	1
CalStd8=100	100.00	99.380	-.620	-.620	.00664	.000	1



Zn 213.856 {457}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.932735		Re-Slope:	1.000000	
A1 (Gain):	6.679361		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999894		Status:	OK.	
Std Error of Est:	0.457282				
Predicted MDL:	0.137271				
Predicted MQL:	0.457569				

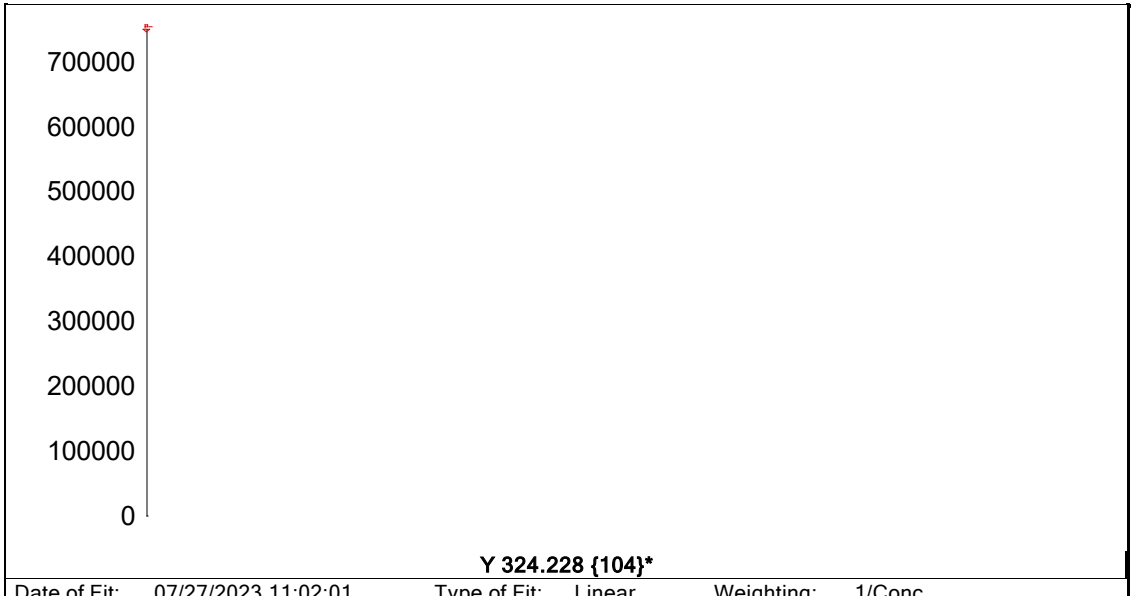
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00119	-.001	.000	.92476	1.16	1
CalStd9=100	1000.0	1000.6	.630	.063	6685.3	11.7	1
CalStd5=10	10.000	11.390	1.39	13.9	77.012	.462	1
CalStd8=100	100.00	97.980	-2.02	-2.02	655.38	1.37	1



Y 224.306 {450}*

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

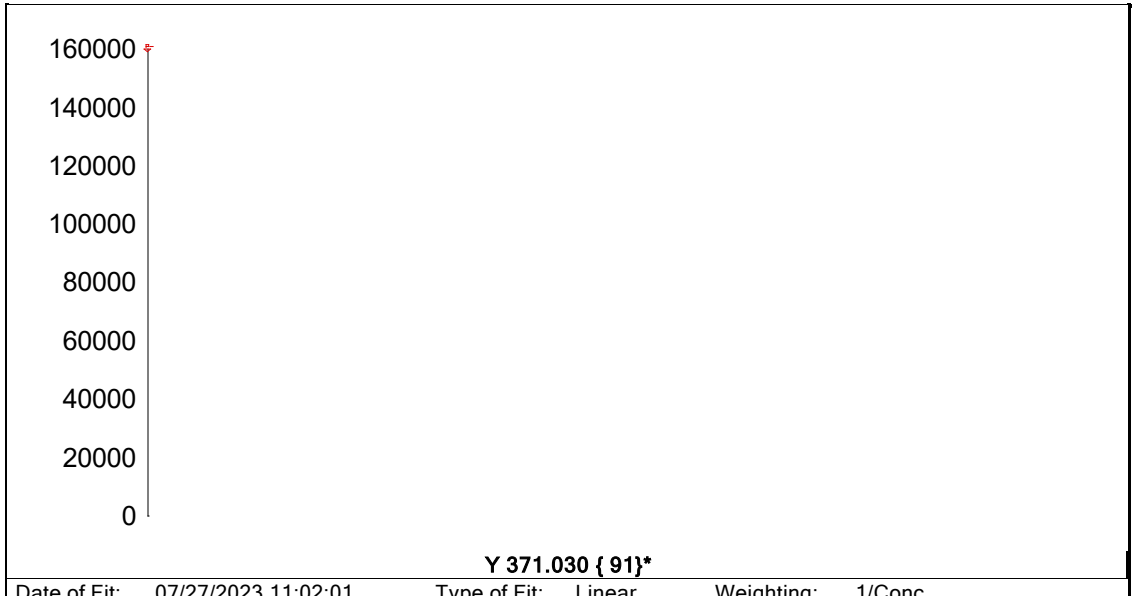
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	54164.	110.	1



Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

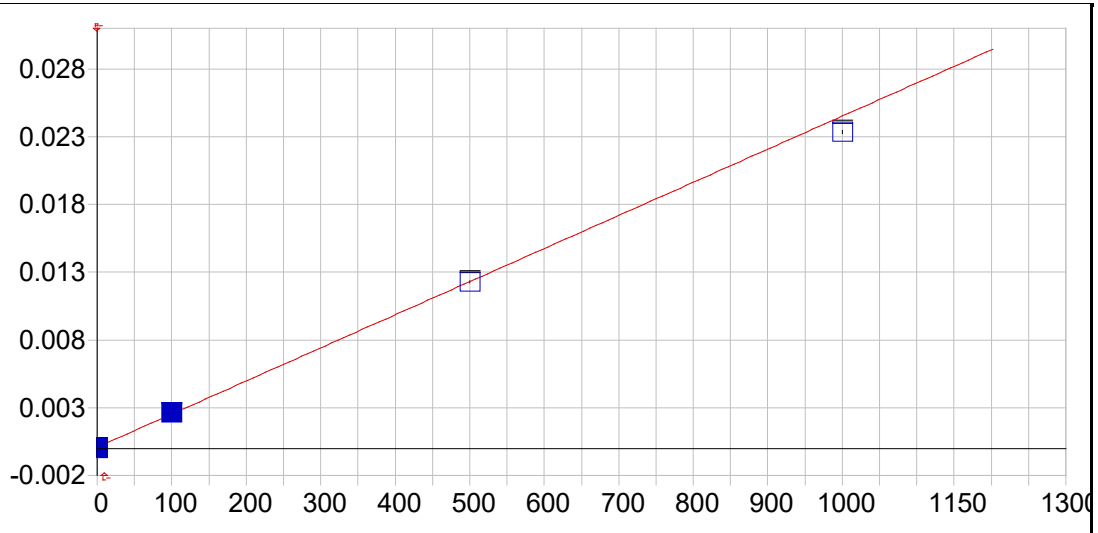
A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	677170.	4510.	1



Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

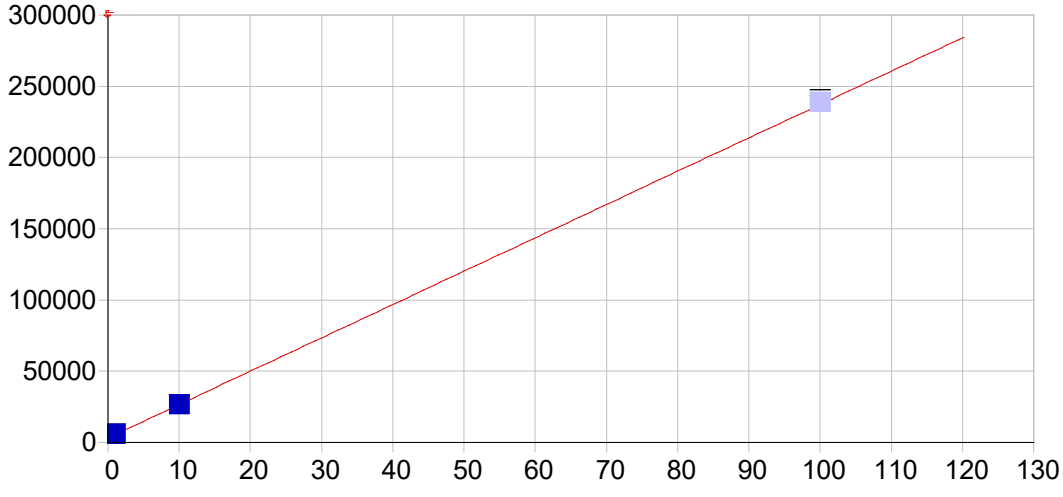
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	148490.	453.	1



Na 330.237 {102}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000086		Re-Slope:	1.000000	
A1 (Gain):	0.000024		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998794		Status:	OK.	
Std Error of Est:	0.000147				
Predicted MDL:	0.806782				
Predicted MQL:	2.689272				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.8491	-3.85	.000	-.00001	.000	1
CalStd13=10	100.00	102.79	2.79	2.79	.00258	.000	1
CalibStd15=	1000.0	951.73	-48.3	-4.83	.02334	.000	1
CalStd14=50	500.00	498.92	-1.08	-.215	.01228	.000	1

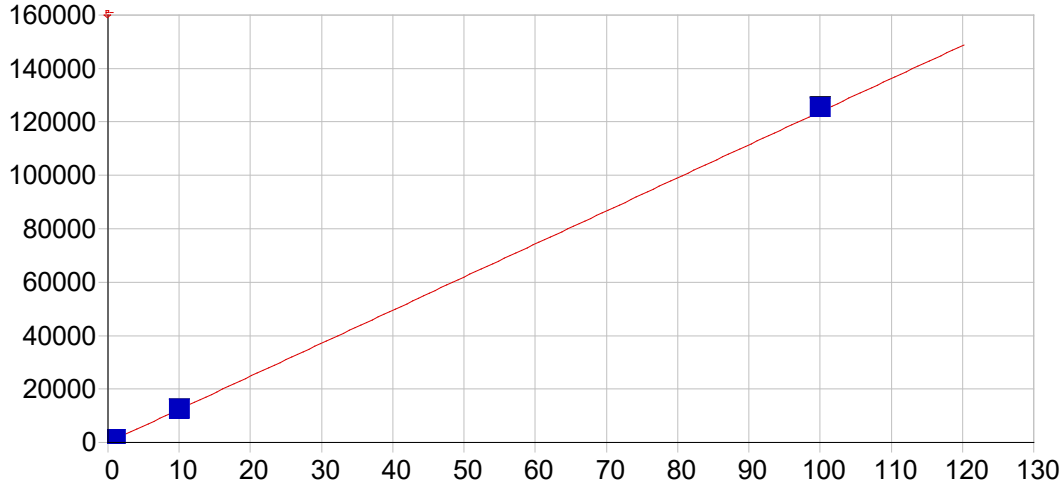


Na 588.995 { 57}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	3226.973293	Re-Slope:	1.000000
A1 (Gain):	2339.798540	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	2.046486		
Predicted MDL:	0.005266		
Predicted MQL:	0.017554		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00001	-.000	.000	3226.9	41.6	1
CalStd9=100	1.0000	1.0152	.015	1.52	5601.9	25.5	1
CalStd10=10	10.000	9.9848	-.015	-.152	26585.	40.5	1
CalStd13=10	100.00	100.60	.599	.599	238560.	2060.	0

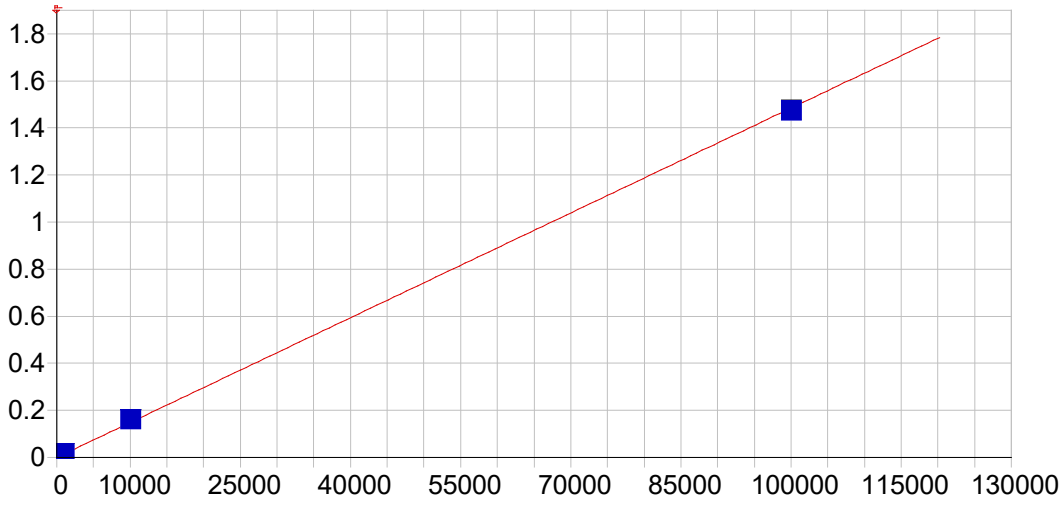


Na 589.592 { 57}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	9.154174	Re-Slope:	1.000000
A1 (Gain):	1238.024478	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	9.979209		
Predicted MDL:	0.006626		
Predicted MQL:	0.022086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00015	-.000	.000	8.9650	.949	1
CalStd9=100	1.0000	1.0346	.035	3.46	1290.3	10.3	1
CalStd10=10	10.000	9.9540	-.046	-.460	12336.	16.4	1
CalStd13=10	100.00	101.25	1.25	1.25	125390.	300.	1

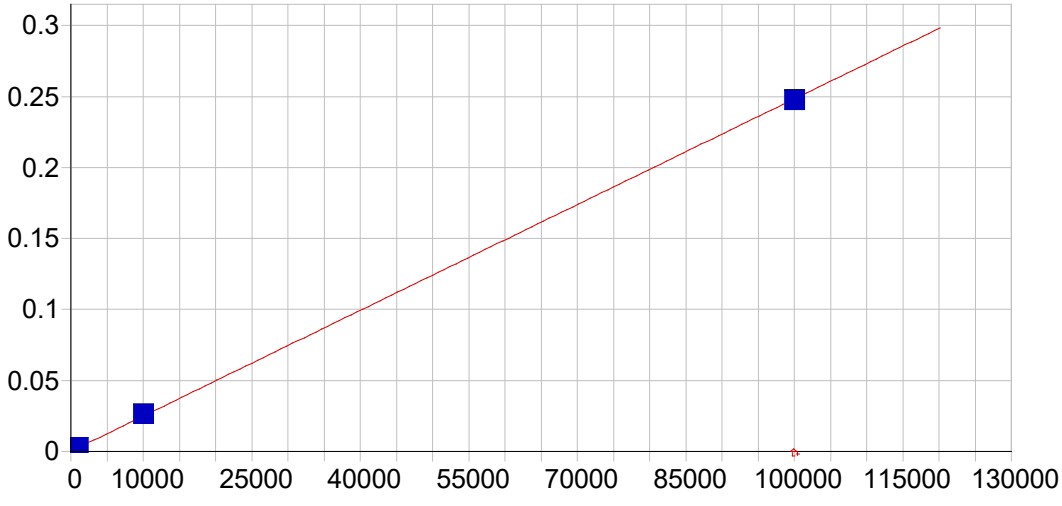


Si 212.412 {458}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000074	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999674	Status:	OK.
Std Error of Est:	0.000178		
Predicted MDL:	1.239417		
Predicted MQL:	4.131391		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.16545	-.165	.000	.00007	.000	1
CalStd9=100	1000.0	1099.5	99.5	9.95	.01639	.000	1
CalStd10=10	10000.	10744.	744.	7.44	.15953	.000	1
CalStd13=10	100000.	99157.	-843.	-.843	1.4718	.002	1

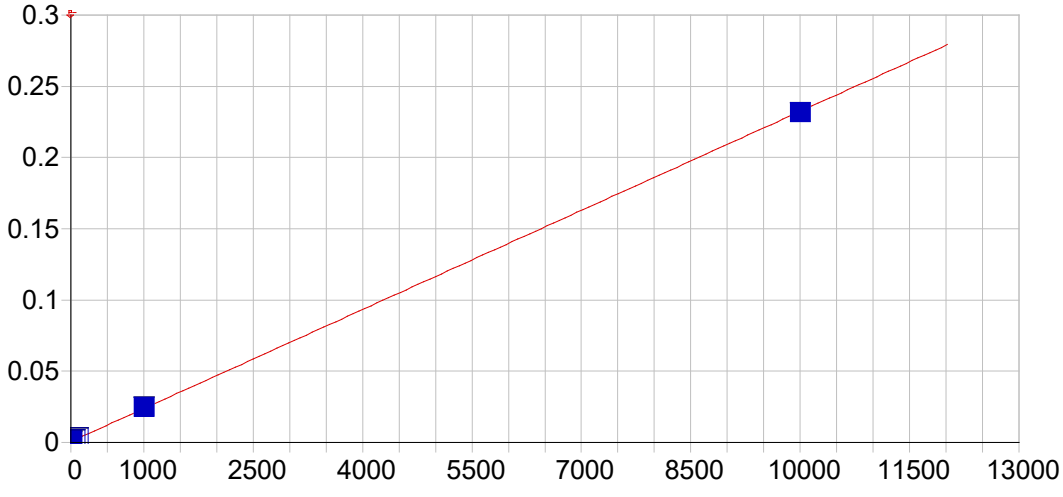


Si 251.611 {134}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000074	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000194		
Predicted MDL:	3.795664		
Predicted MQL:	12.652214		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-18.968	-19.0	.000	.00003	.000	1
CalStd9=100	1000.0	1031.6	31.6	3.16	.00264	.000	1
CalStd10=10	10000.	10410.	410.	4.10	.02592	.000	1
CalStd13=10	100000.	99598.	-402.	-.402	.24734	.000	1

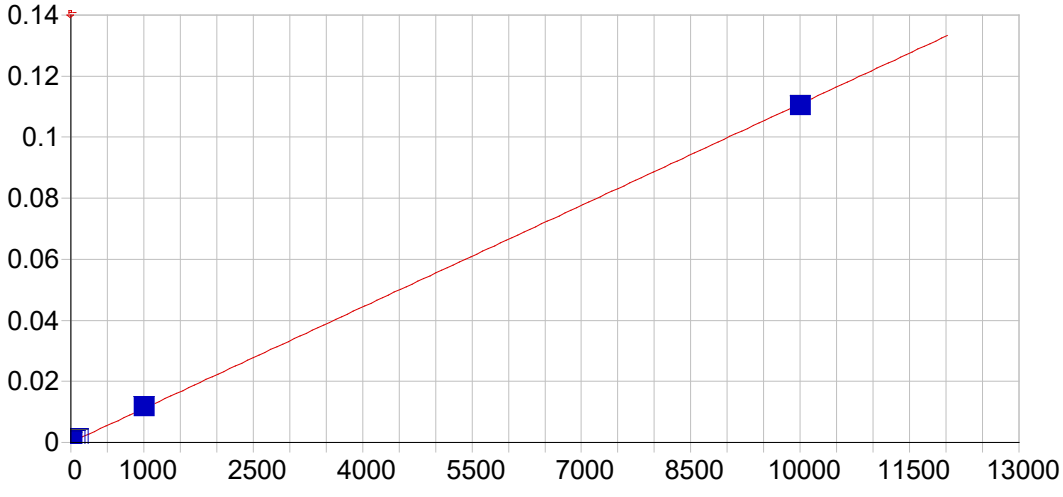


Ti 323.452 {104}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000627	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999895	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.856505		
Predicted MQL:	2.855017		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00162	-.002	.000	.00063	.000	1
CalStd5=10	10.000	9.9173	-.083	-.827	.00086	.000	1
CalStd8=100	100.00	100.64	.644	.644	.00296	.000	1
CalStd9=100	1000.0	1040.8	40.8	4.08	.02475	.000	1
CalStd10=10	10000.	9954.2	-45.8	-.458	.23135	.000	1
CalStd7=50	50.000	53.379	3.38	6.76	.00186	.000	1
CalStd4=5	5.0000	6.1146	1.11	22.3	.00077	.000	1

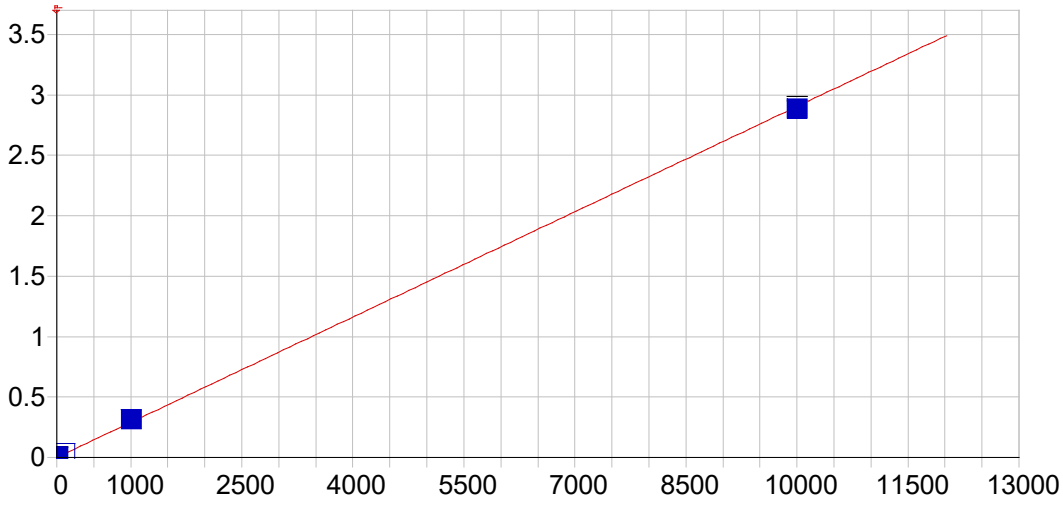


Ti 334.941 {101}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999816	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.098237		
Predicted MQL:	3.660790		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00313	-.003	.000	.00002	.000	1
CalStd5=10	10.000	11.589	1.59	15.9	.00015	.000	1
CalStd8=100	100.00	102.44	2.44	2.44	.00116	.000	1
CalStd9=100	1000.0	1051.6	51.6	5.16	.01168	.000	1
CalStd10=10	10000.	9939.4	-60.6	-.606	.11024	.000	1
CalStd7=50	50.000	53.291	3.29	6.58	.00061	.000	1
CalStd4=5	5.0000	6.6599	1.66	33.2	.00009	.000	1

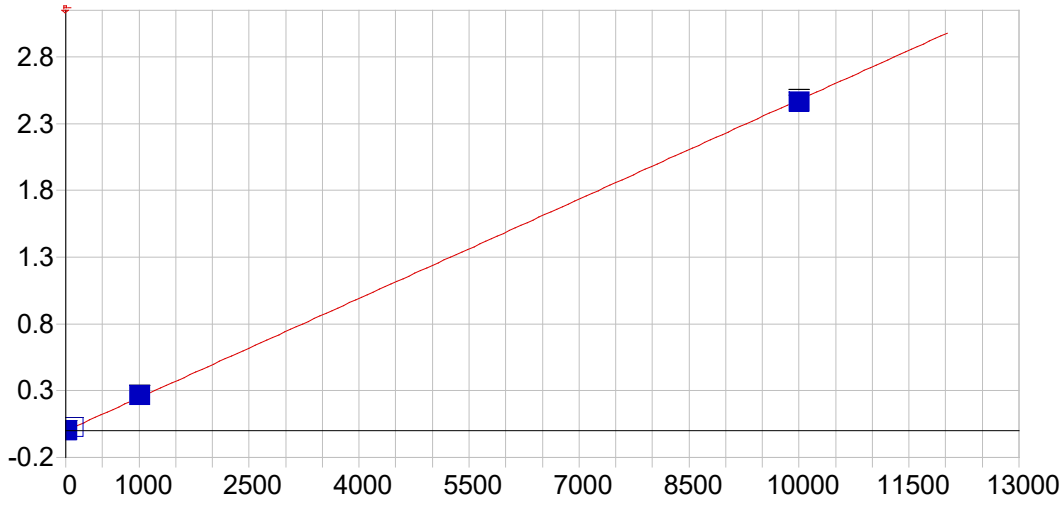


Sr 407.771 { 83}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000171	Re-Slope:	1.000000
A1 (Gain):	0.000290	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999746	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.092092		
Predicted MQL:	0.306973		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00066	-.001	.000	.00017	.000	1
CalStd3=1	1.0000	1.3239	.324	32.4	.00056	.000	1
CalStd4=5	5.0000	5.6838	.684	13.7	.00182	.000	1
CalStd5=10	10.000	11.075	1.08	10.8	.00339	.000	1
CalStd8=100	100.00	103.09	3.09	3.09	.03011	.000	1
CalStd9=100	1000.0	1068.6	68.6	6.86	.31048	.000	1
CalStd10=10	10000.	9926.2	-73.8	-.738	2.8827	.018	1

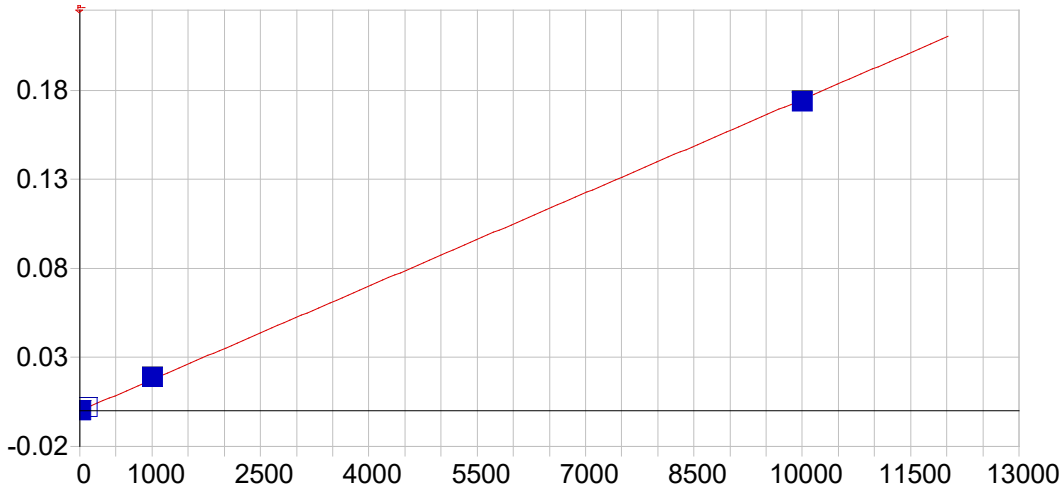


Sr 421.552 { 80}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000333	Re-Slope:	1.000000
A1 (Gain):	0.000248	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999727	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.121512		
Predicted MQL:	0.405039		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00065	-.001	.000	-.00033	.000	1
CalStd3=1	1.0000	1.2905	.290	29.0	-.00001	.000	1
CalStd4=5	5.0000	5.7346	.735	14.7	.00109	.000	1
CalStd5=10	10.000	11.193	1.19	11.9	.00244	.000	1
CalStd8=100	100.00	102.97	2.97	2.97	.02519	.000	1
CalStd9=100	1000.0	1071.2	71.2	7.12	.26520	.000	1
CalStd10=10	10000.	9923.6	-76.4	-.764	2.4596	.021	1

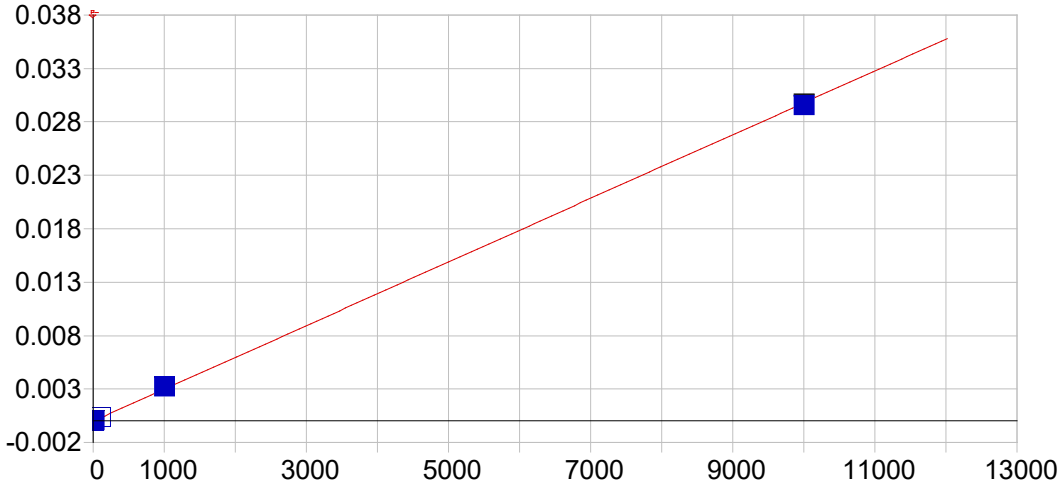


Sn 189.989 {477}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000017	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999662	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.694776		
Predicted MQL:	2.315920		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00336	-.003	.000	.00000	.000	1
CalStd10=10	10000.	9914.2	-85.8	-.858	.17340	.000	1
CalStd9=100	1000.0	1076.5	76.5	7.65	.01883	.000	1
CalStd8=100	100.00	107.32	7.32	7.32	.00188	.000	1
CalStd5=10	10.000	11.945	1.94	19.4	.00021	.000	1

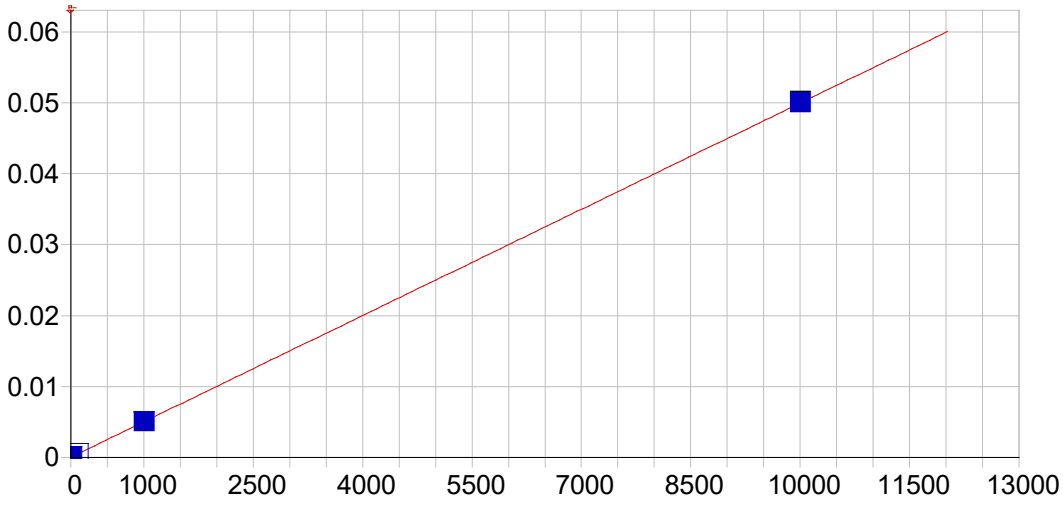


Sn 189.989 {478}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999713	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.572223		
Predicted MQL:	8.574076		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00333	-.003	.000	-.00000	.000	1
CalStd10=10	10000.	9921.2	-78.8	-.788	.02955	.000	1
CalStd9=100	1000.0	1069.4	69.4	6.94	.00318	.000	1
CalStd8=100	100.00	107.38	7.38	7.38	.00032	.000	1
CalStd5=10	10.000	11.978	1.98	19.8	.00003	.000	1

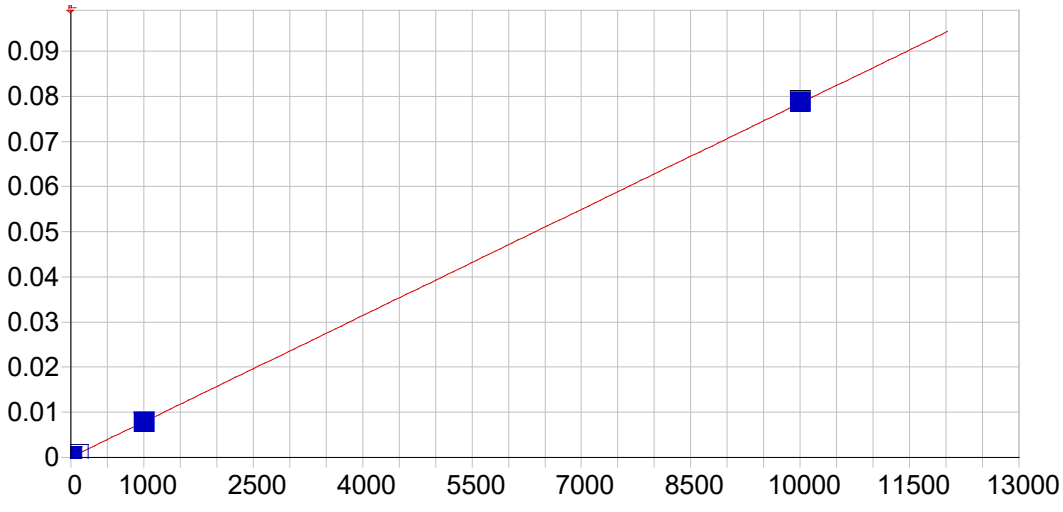


B 249.678 {135}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000035	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.800058		
Predicted MQL:	2.666861		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00012	-.000	.000	.00003	.000	1
CalStd8=100	100.00	95.644	-4.36	-4.36	.00051	.000	1
CalStd5=10	10.000	10.614	.614	6.14	.00009	.000	1
CalStd9=100	1000.0	993.63	-6.37	-.637	.00500	.000	1
CalStd10=10	10000.	10010.	10.1	.101	.05001	.000	1

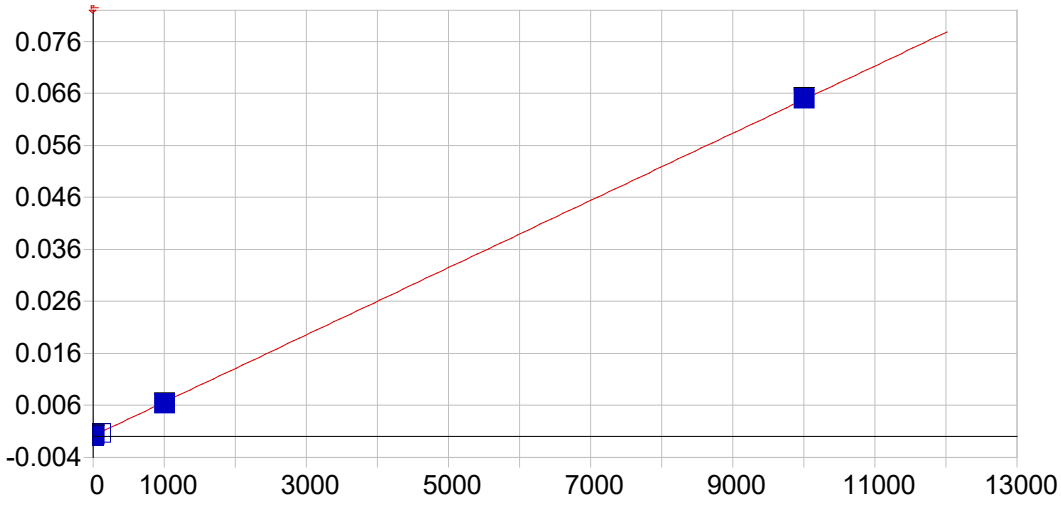


B 249.773 {135}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000028	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999967	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.358493		
Predicted MQL:	1.194978		

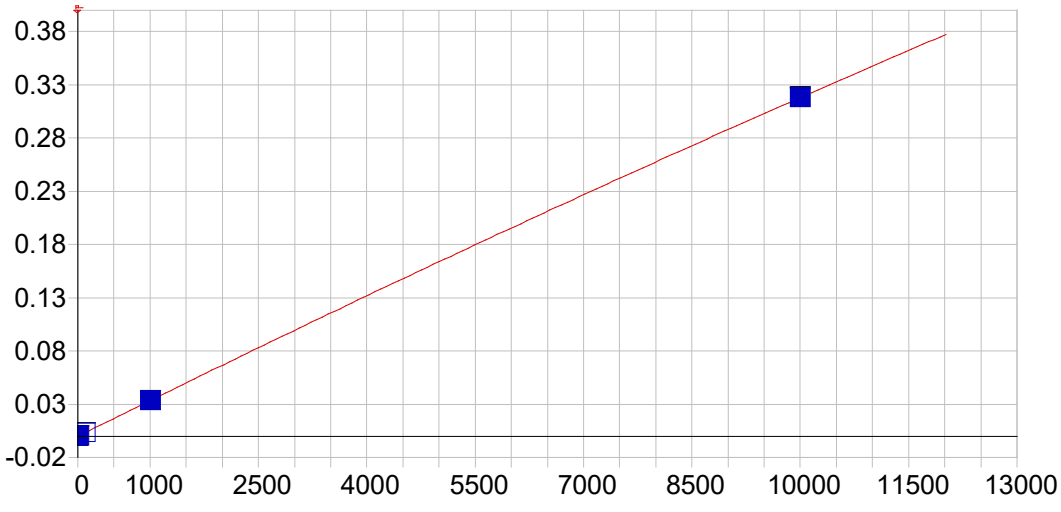
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00098	.001	.000	.00003	.000	1
CalStd8=100	100.00	94.047	-5.95	-5.95	.00077	.000	1
CalStd5=10	10.000	9.7669	-.233	-2.33	.00010	.000	1
CalStd9=100	1000.0	982.46	-17.5	-1.75	.00774	.000	1
CalStd10=10	10000.	10024.	23.7	.237	.07873	.000	1



Li 610.353 { 55}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000182		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999901		Status:	OK.	
Std Error of Est:	0.000159				
Predicted MDL:	13.230182				
Predicted MQL:	44.100608				

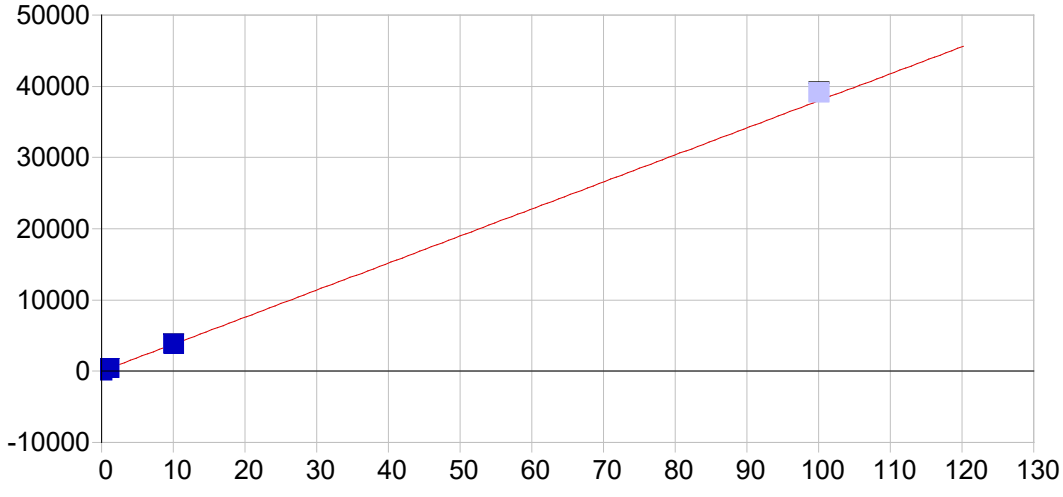
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-12.911	-12.9	.000	.00010	.000	1
CalStd5=10	10.000	20.153	10.2	102.	.00031	.000	1
CalStd8=100	100.00	65.847	-34.2	-34.2	.00061	.000	1
CalStd9=100	1000.0	954.02	-46.0	-4.60	.00635	.000	1
CalStd10=10	10000.	10019.	19.0	.190	.06495	.000	1



Li 670.776 { 50}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	-0.000258		Re-Slope:	1.000000	
A1 (Gain):	0.000034		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999998		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.544547				
Predicted MQL:	5.148490				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00051	-.001	.000	-.00026	.000	1
CalStd5=10	10.000	10.609	.609	6.09	.00010	.000	1
CalStd8=100	100.00	98.913	-1.09	-1.09	.00309	.000	1
CalStd9=100	1000.0	1000.5	.524	.052	.03338	.000	1
CalStd10=10	10000.	10000.0	-.047	-.000	.31800	.000	1

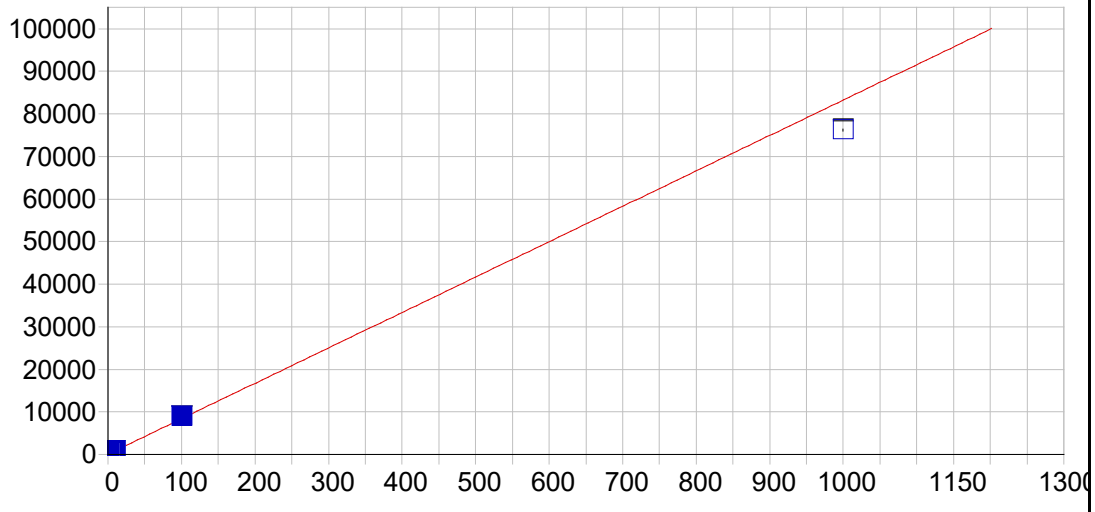


K 766.490 { 44}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-8.498595	Re-Slope:	1.000000
A1 (Gain):	379.690832	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.717372		
Predicted MDL:	0.019021		
Predicted MQL:	0.063403		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00003	-.000	.000	-8.5098	5.72	1
CalStd9=100	1.0000	1.0329	.033	3.29	383.74	8.19	1
CalStd10=10	10.000	9.9671	-.033	-.329	3776.5	17.1	1
CalStd13=10	100.00	102.96	2.96	2.96	39092.	93.4	0

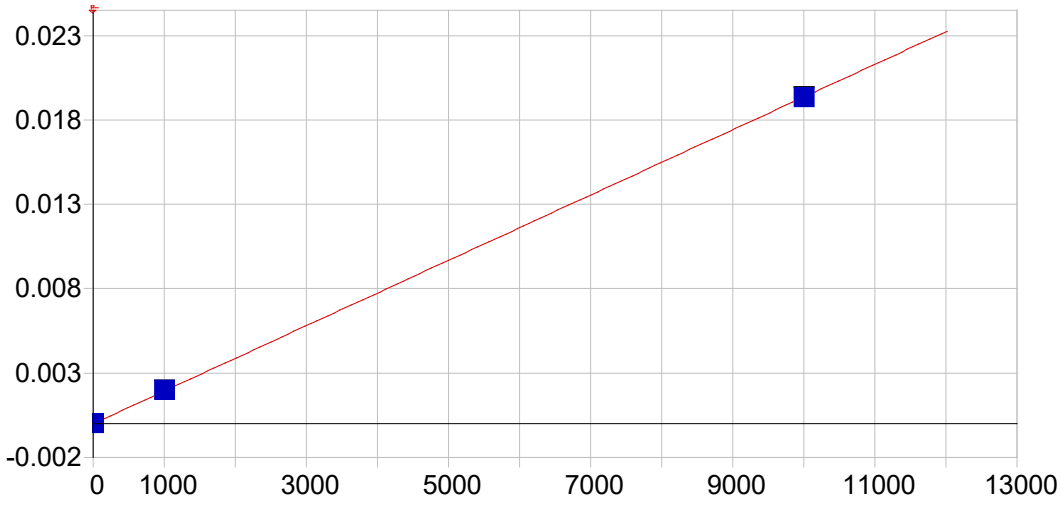


K 769.896 { 44}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	81.455631	Re-Slope:	1.000000
A1 (Gain):	83.181148	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997068	Status:	OK.
Std Error of Est:	92.645265		
Predicted MDL:	0.069238		
Predicted MQL:	0.230794		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.46186	-.462	.000	43.037	6.67	1
CalStd10=10	10.000	10.349	.349	3.49	941.57	5.80	1
CalibStd15=	1000.0	915.28	-84.7	-8.47	76215.	256.	1
CalStd13=10	100.00	106.86	6.86	6.86	8962.4	23.9	1
CalStd9=100	1.0000	.95040	-.050	-4.96	160.44	2.15	1

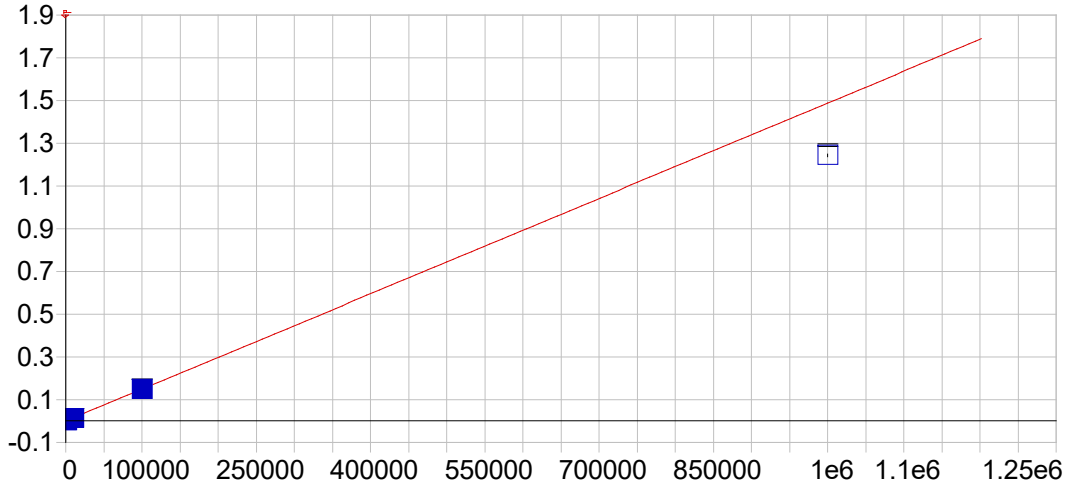


P 177.495 {489}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.730149		
Predicted MQL:	12.433830		

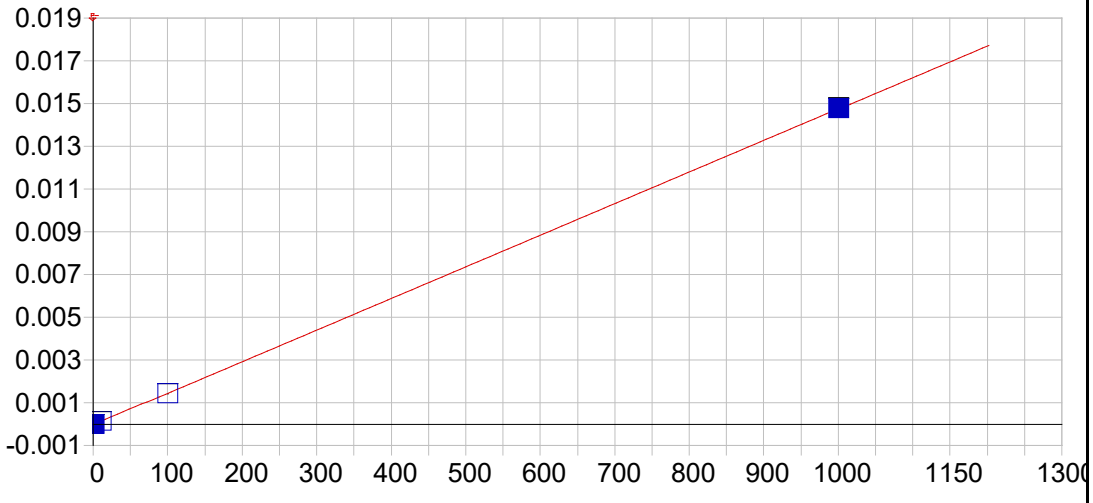
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01197	-.012	.000	-.00000	.000	1
CalStd10=10	10000.	9986.7	-13.3	-.133	.01934	.000	1
CalStd9=100	1000.0	1013.3	13.3	1.33	.00196	.000	1



S 182.034 {485}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999982		Status:	OK.	
Std Error of Est:	0.000013				
Predicted MDL:	5.712828				
Predicted MQL:	19.042760				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.07866	.079	.000	.00000	.000	1
CalStd9=100	1000.0	964.52	-35.5	-3.55	.00144	.000	1
CalStd10=10	10000.	9492.6	-507.	-5.07	.01416	.000	1
CalibStd15=	1000000.	835140.	-165000.	-16.5	1.2430	.007	1
CalStd13=10	100000.	98932.	-1070.	-1.07	.14726	.000	1

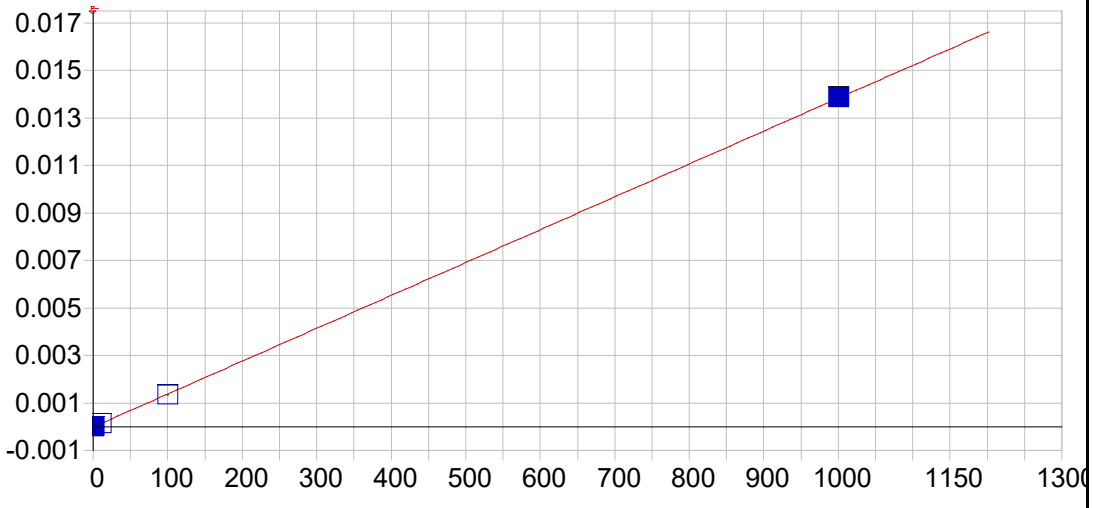


Hg 184.950 {482}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000028	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.698781		
Predicted MQL:	2.329270		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	-.00003	.000	1
CalStd9=100	1000.0	1002.2	2.16	.216	.01477	.000	1
CalStd3=1	1.0000	1.1427	.143	14.3	-.00001	.000	1
CalStd5=10	10.000	10.241	.241	2.41	.00012	.000	1
CalStd8=100	100.00	97.455	-2.55	-2.55	.00141	.000	1

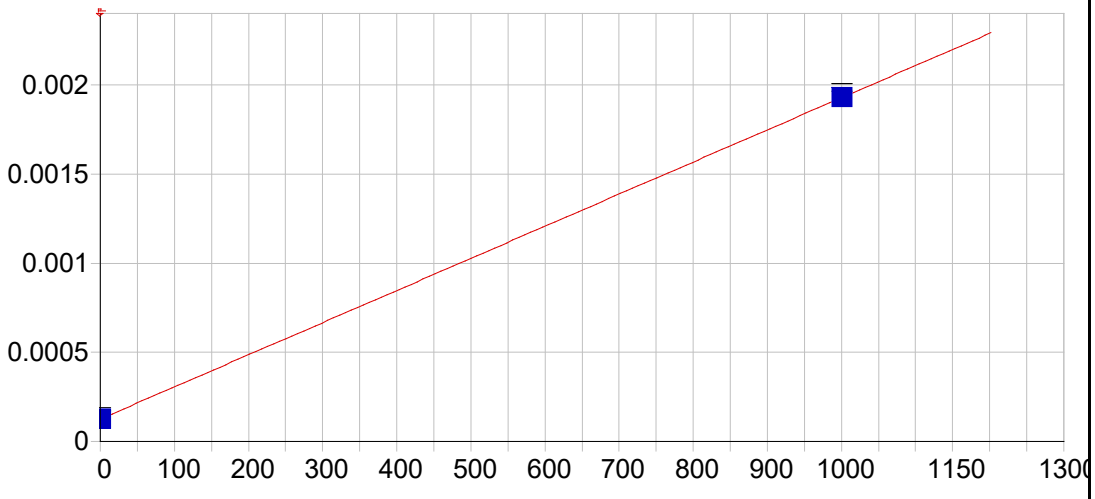


Hg 194.227 {473}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999780	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.858086		
Predicted MQL:	2.860286		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00063	-.001	.000	-.00001	.000	1
CalStd9=100	1000.0	1001.7	1.74	.174	.01385	.000	1
CalStd3=1	1.0000	1.6528	.653	65.3	.00001	.000	1
CalStd5=10	10.000	10.018	.018	.178	.00013	.000	1
CalStd8=100	100.00	97.585	-2.41	-2.41	.00134	.000	1



Ce 404.076 { 83}

Date of Fit:	07/27/2023 11:02:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000126	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	14.994304		
Predicted MQL:	49.981015		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00013	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00193	.000	1

Sample Name: Blank Acquired: 07/26/2023 09:10:38 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**-.000**	**.000**	**-.715**	**.000**	**.031**	**.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**
Stddev	.000	.000	.000	.000	.458	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	8.69	18.0	5.61	29.0	64.1	342.	.196	30.2	28.2	4.93	142.	64500.	94.6

Elem	Co2388	Cr2055	Cr2677	Cu2230	Cu3247	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	11.7	130.	37.0	236.	27.1	4.74	129.	151.	204.	1.59	22.3	2950.	124.

Elem	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**-.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	172.	86.5	14.3	46.1	44.6	1290.	38.8	51.5	934.	378.	23.2	128.	81.0

Elem	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.925**	**-.000**	**3230.**	**8.96**	**.000**	**.001**	**.000**	**.000**	**.000**	**-.000**	**-8.51**	**43.0**	**.000**
Stddev	1.16	.000	42.	.95	.000	.000	.000	.000	.000	.000	5.72	6.7	.000
%RSD	125.	129.	1.29	10.6	33.8	1.46	8.72	220.	7.74	17.8	67.3	15.5	253.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**54164.**	**677170.**	**148490.**
Stddev	110.	4510.	453.
%RSD	.20377	.66596	.30528

Sample Name: CalStd2=0.5 Acquired: 07/26/2023 09:18:00 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be3131	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	18.8	17.5	18.7

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53285.**	**663340.**	**148240.**
Stddev	151.	2240.	298.
%RSD	.28392	.33766	.20120

Sample Name: CalStd3=1 Acquired: 07/26/2023 09:25:19 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be3131	Cd2265	Cd2288	Co2286	Cr2055	Ni2316	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	15.3	11.0	11.4	13.8	26.6	16.1	5.17	48.2	4.60

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53393.**	**667160.**	**146970.**
Stddev	121.	2450.	468.
%RSD	.22644	.36725	.31812

Sample Name: CalStd4=5 Acquired: 07/26/2023 09:32:41 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Be3131	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.63	1.91	3.54	8.23	4.35	1.25	6.02	.826	3.69	4.41	10.0	16.4	16.6

Elem	Ti3234	Sr4077
Units	Cts/S	Cts/S
Avg	**.001**	**.002**
Stddev	.000	.000
%RSD	1.54	.565

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53419.**	**669480.**	**147420.**
Stddev	89.	4472.	316.
%RSD	.16628	.66795	.21431

Sample Name: CalStd5=10 Acquired: 07/26/2023 09:40:03 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3131	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.071**	**.001**	**.001**	**.002**	**.000**	**.001**	**.001**	**.000**	**.000**	**.001**
Stddev	.000	.000	.000	.638	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	11.1	4.11	13.3	894.	2.56	.712	.325	2.66	1.10	1.71	1.97	5.17	.883

Elem	Mo2020	Mo2045	Ni2316	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Ti3234	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**77.0**	**.001**	**.003**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.5	.000	.000
%RSD	6.99	2.11	2.67	7.06	17.3	13.1	152.	9.43	4.19	1.14	.600	3.19	.606

Elem	Sn1899	B_2496	Li6707
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	4.85	2.16	56.2

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53427.**	**668250.**	**147770.**
Stddev	41.	6452.	479.
%RSD	.07670	.96551	.32403

Sample Name: CalStd6=20 Acquired: 07/26/2023 09:47:25 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.001**	**.001**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	.318	.840	1.18	4.34	5.69	3.16

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53361.**	**664300.**	**148280.**
Stddev	83.	4431.	316.
%RSD	.15514	.66705	.21299

Sample Name: CalStd7=50 Acquired: 07/26/2023 09:54:45 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**4.35**	**.008**	**.001**	**.005**	**.004**	**.000**	**.003**	**.002**	**.001**	**.003**	**.000**	**.001**
Stddev	.000	.41	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.09	9.44	.396	.972	.509	.542	.814	.540	.582	1.32	.681	1.85	.885

Elem	Ti3234
Units	Cts/S
Avg	**.002**
Stddev	.000
%RSD	.781

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53432.**	**669850.**	**148130.**
Stddev	160.	3931.	503.
%RSD	.29945	.58688	.33960

Sample Name: CalStd8=100 Acquired: 07/26/2023 10:01:59 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Co2388	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.001**	**.000**	**8.31**	**.005**	**.041**	**.009**	**.029**	**.015**	**.002**	**.010**	**.001**	**.007**
Stddev	.000	.000	.000	.60	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.406	1.00	2.49	7.17	.533	.202	.557	.510	.201	.298	.351	.231	.322

Elem	Cr2677	Cu2230	Cu3247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.002**	**.001**	**.012**	**.005**	**.004**	**.002**	**.005**	**.006**	**.001**	**.002**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.06	.460	1.65	.381	.250	.156	.707	.199	.423	2.36	1.63	1.91	1.92

Elem	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Ti3234	Sr4077	Sn1899	B_2496	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.000**	**.002**	**.007**	**655.**	**.003**	**.030**	**.002**	**.001**	**.003**
Stddev	.000	.000	.000	.000	.000	1.	.000	.000	.000	.000	.000
%RSD	14.9	.737	2.77	.639	.290	.209	.821	.578	.540	.801	1.53

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53539.**	**672660.**	**148540.**
Stddev	156.	2974.	318.
%RSD	.29218	.44216	.21409

Sample Name: CalStd9=1000 Acquired: 07/26/2023 10:09:02 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286	Co2388	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.007**	**.005**	**.005**	**93.2**	**.050**	**.097**	**.002**	**.255**	**.154**	**.025**	**.107**	**.006**	**.073**
Stddev	.000	.000	.000	.5	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.305	.316	.390	.514	.162	.145	.521	.126	.152	.079	.137	.455	.093

Elem	Cr2677	Cu2230	Cu3247	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.007**	**.022**	**.010**	**.001**	**.004**	**.009**	**.000**	**.113**	**.050**	**.028**	**.038**	**.019**	**.054**
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000
%RSD	.391	.234	.228	.649	.294	.149	1.52	.471	.559	.092	.166	.218	.120

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Na5889
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.064**	**.006**	**.017**	**.006**	**.007**	**.002**	**.001**	**.009**	**.004**	**.016**	**.068**	**6690.**	**5600.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	12.	26.
%RSD	.071	.149	.072	.376	.204	.473	1.32	.247	.338	.460	.199	.175	.455

Elem	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1290.**	**.003**	**.025**	**.310**	**.019**	**.005**	**.033**	**384.**	**160.**	**.001**
Stddev	10.	.000	.000	.000	.000	.000	.000	8.	2.	.000
%RSD	.797	.557	.060	.111	.144	.696	.165	2.13	1.34	.741

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**54078.**	**675080.**	**149590.**
Stddev	101.	2633.	378.
%RSD	.18664	.38996	.25275

Sample Name: CalStd10=10000 Acquired: 07/26/2023 10:15:26 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cu2230	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.048**	**879.**	**.460**	**.943**	**.018**	**2.36**	**.996**	**.054**	**.676**	**.206**	**.091**
Stddev	.000	5.	.001	.012	.000	.03	.002	.000	.001	.000	.000
%RSD	.086	.527	.145	1.24	.190	1.37	.152	.241	.195	.146	.068

Elem	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.013**	**.033**	**.088**	**.003**	**1.03**	**.480**	**.266**	**.352**	**.181**	**.499**	**.590**
Stddev	.000	.000	.000	.000	.01	.004	.000	.001	.000	.001	.001
%RSD	.266	.169	.183	.289	.533	.799	.131	.238	.158	.284	.179

Elem	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Na5889	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.051**	**.058**	**.061**	**.022**	**.007**	**.080**	**.038**	**.157**	**.637**	**26600.**	**12300.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.001	41.	16.
%RSD	.323	.327	.114	.280	.444	.220	.078	.261	.228	.152	.133

Elem	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.026**	**.231**	**2.88**	**.173**	**.050**	**.318**	**3780.**	**942.**	**.014**
Stddev	.000	.000	.02	.000	.000	.000	17.	6.	.000
%RSD	.256	.151	.630	.181	.303	.123	.452	.616	.225

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**52586.**	**623980.**	**148620.**
Stddev	104.	2524.	320.
%RSD	.19840	.40449	.21507

Sample Name: CalStd12=100K Acquired: 07/26/2023 10:23:08 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cr2055	Cu3247	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.48**	**.949**	**2.71**	**.544**	**5.97**
Stddev	.00	.001	.04	.001	.06
%RSD	.057	.149	1.54	.204	.927

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**51958.**	**661480.**	**148130.**
Stddev	83.	2048.	351.
%RSD	.16066	.30964	.23665

Sample Name: CalStd13=100000 Acquired: 07/26/2023 10:31:05 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790	Na3302	Na5889	Na5895	Si2516	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.192**	**.119**	**.353**	**.922**	**.027**	**.003**	**239000.**	**125000.**	**.247**	**39100.**
Stddev	.000	.001	.001	.001	.000	.000	2060.	300.	.000	93.
%RSD	.173	1.000	.213	.138	.217	.328	.862	.239	.078	.239

Elem	K_7698	S_1820
Units	Cts/S	Cts/S
Avg	**8960.**	**.147**
Stddev	24.	.000
%RSD	.267	.215

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**50379.**	**633960.**	**146780.**
Stddev	102.	4358.	447.
%RSD	.20153	.68746	.30429

Sample Name: CalStd14=500000 Acquired: 07/26/2023 10:38:32 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.48**	**.872**	**1.56**	**4.08**	**.012**
Stddev	.03	.004	.01	.05	.000
%RSD	1.35	.404	.810	1.30	.486

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**46062.**	**141100.**
Stddev	184.	423.
%RSD	.39920	.29948

Sample Name: CalibStd15=1000k Acquired: 07/26/2023 10:47:06 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790	Na3302	K_7698	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.85**	**1.63**	**2.84**	**7.20**	**.242**	**.023**	**76200.**	**1.24**
Stddev	.05	.01	.07	.12	.001	.000	256.	.01
%RSD	1.11	.540	2.62	1.65	.484	.488	.336	.531

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**43235.**	**136650.**
Stddev	189.	445.
%RSD	.43784	.32564

Sample Name: Ag 1000 Ba 20000 Acquired: 07/26/2023 10:55:48 Type: Cal
Method: DOD Calibration Updated 060614(v5766) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba4934
Units	Cts/S	Cts/S
Avg	**.027**	**1.92**
Stddev	.000	.02
%RSD	.865	.917

Int. Std.	Y_3242	Y_3710
Units	Cts/S	Cts/S
Avg	**686760.**	**150740.**
Stddev	5618.	273.
%RSD	.81803	.18124

Sample Name: icv Acquired: 07/26/2023 11:10:46 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3131	Ca3158	Ca3968	Cd2265	Cd2288	Co2286	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.1**	**12000.**	**2060.**	**2090.**	**51.1**	**9990.**	**9970.**	**48.5**	**49.5**	**522.**	**212.**	**195.**
Stddev	.2	12.	5.	1.	.2	16.	107.	.1	.5	1.	1.	1.
%RSD	.378	.102	.248	.034	.314	.160	1.07	.211	.979	.250	.435	.574
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**253.**	**5140.**	**5010.**	**10300.**	**9420.**	**493.**	**504.**	**527.**	**508.**	**519.**	**479.**	**520.**
Stddev	1.	16.	55.	37.	64.	1.	1.	1.	1.	1.	3.	3.
%RSD	.384	.318	1.10	.358	.675	.272	.287	.221	.204	.187	.565	.547
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Se1960	Se2062	Tl1908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	**2160.**	**2090.**	**2030.**	**500.**	**502.**	**98.1**	**96.0**	**97.0**	**492.**	**496.**	**507.**	**503.**
Stddev	9.	25.	8.	1.	1.	.2	.6	.1	5.	.	.	2.
%RSD	.422	1.19	.398	.132	.164	.225	.603	.152	.943	.080	.062	.367
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Sample Name: icv Acquired: 07/26/2023 11:10:46 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**504.**	**479.**	**99.8**	**104.**	**98000.**
Stddev	1.	2.	.1	.	219.
%RSD	.218	.410	.130	.144	.223
Check ?	None	None	None	None	None
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**52259.**	**656220.**	**148010.**
Stddev	31.	373.	303.
%RSD	.05987	.05682	.20491

Sample Name: ICVLL Acquired: 07/26/2023 11:25:26 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3131	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **40.4**	**1270.**	**1300.**	**58.6**	**33.6**	**12.9**	**1630.**	**1660.**	**15.4**	**33.4**	**31.1**	**34.7**	**1020.**
Stddev	.5	4.	5.	1.5	.2	.2	9.	5.	.1	.3	.3	.9	4.
%RSD	1.19	.334	.382	2.48	.585	1.42	.567	.310	.566	.900	.973	2.58	.371
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	30.0												
Range	30.0%												

Elem	Fe2599	Mg2790	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**985.**	**1710.**	**1650.**	**32.0**	**33.8**	**34.1**	**32.5**	**65.7**	**69.6**	**68.8**	**31.0**	**36.0**	**6.12**
Stddev	6.	9.	15.	.2	.4	.1	.9	3.9	.6	.5	.1	.2	.02
%RSD	.659	.534	.932	.532	1.24	.363	2.74	5.87	.918	.753	.426	.548	.285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**6.11**	**297.**	**30.1**	**32.8**	**169.**	**60.5**	**61.1**	**3.27**	**3.40**	**929.**
Stddev	.01	3.	.3	.1	1.	1.0	.8	.01	.06	4.
%RSD	.156	1.03	.916	.230	.299	1.60	1.33	.415	1.67	.432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Sample Name: ICVLL Acquired: 07/26/2023 11:25:26 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53895.**	**683820.**	**148130.**
Stddev	68.	2725.	472.
%RSD	.12628	.39849	.31862

Sample Name: icb Acquired: 07/26/2023 11:32:41 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.084**	**-.191**	**-3.03**	**-.091**	**.030**	**.243**	**-.060**	**-.141**	**-.406**	**.523**	**-.003**	**.267**	**.026**
Stddev	.635	.273	2.60	.114	.109	.068	.118	.116	.177	.655	1.11	.015	.012
%RSD	757.	143.	85.9	125.	367.	28.0	198.	82.8	43.6	125.	43500.	5.67	47.4
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**.092**	**-.071**	**.607**	**1.14**	**.115**	**.665**	**-.398**	**-.006**	**-.031**	**.009**	**-21.6**	**-2.34**	**.023**
Stddev	.150	.122	1.39	2.77	1.84	2.02	.344	.095	.008	.001	3.0	.74	.062
%RSD	163.	170.	229.	244.	1600.	304.	86.4	1580.	25.3	7.13	13.8	31.8	272.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**-.432**	**-.829**	**.764**	**.102**	**-.395**	**7.48**
Stddev	.402	.258	.466	.008	.044	1.11
%RSD	93.1	31.1	61.1	8.15	11.1	14.9
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: icb Acquired: 07/26/2023 11:32:41 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**54746.**	**690610.**	**150480.**
Stddev	94.	1412.	697.
%RSD	.17113	.20448	.46316

Sample Name: MRL/LLOQ Acquired: 07/26/2023 11:47:22 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**12.3**	**402.**	**17.1**	**10.5**	**3.92**	**506.**	**4.76**	**10.4**	**9.22**	**11.5**	**315.**	**295.**	**519.**
Stddev	.6	2.	2.0	.2	.03	1.	.16	.2	.41	.9	4.	3.	6.
%RSD	5.00	.456	11.6	2.03	.728	.224	3.30	1.57	4.43	7.91	1.27	.861	1.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**9.99**	**10.4**	**10.5**	**11.7**	**22.2**	**19.1**	**19.1**	**9.50**	**10.0**	**1.86**	**1.95**	**78.3**	**7.60**
Stddev	.10	.5	.3	.9	1.7	7.4	1.4	.28	.1	.01	.01	2.1	.76
%RSD	.947	4.46	2.69	7.63	7.41	38.9	7.39	2.97	.868	.495	.604	2.68	10.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**10.2**	**52.8**	**18.6**	**18.6**	**1.01**	**.936**	**287.**
Stddev	.0	.3	.7	.6	.01	.056	9.
%RSD	.156	.640	3.72	3.18	1.01	5.99	3.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: MRL/LLOQ Acquired: 07/26/2023 11:47:22 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53865.**	**675580.**	**148700.**
Stddev	110.	7629.	256.
%RSD	.20383	1.1292	.17238

Sample Name: ICSA Acquired: 07/26/2023 11:54:39 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.315**	**517000.**	**-.169**	**.663**	**-.017**	**490000.**	**.000**	**-.137**	**.000**	**-.007**	**499000.**
Stddev	.634	7740.	6.91	.569	.101	1620.	.354	.133	.465	1.60	11100.
%RSD	201.	1.50	4080.	85.9	598.	.330	98100.	96.7	43e6	22700.	2.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2908	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**421000.**	**529000.**	**.139**	**.776**	**.000**	**-.000**	**-.002**	**-3.23**	**.001**	**10700.**	**-1.73**
Stddev	5080.	1930.	.055	.884	.707	2.29	2.09	6.20	1.77	30.	.64
%RSD	1.21	.364	39.9	114.	784000.	1780000.	135000.	192.	319000.	.279	36.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit											
Low Limit											

Elem	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**-.048**	**-.025**	**-13.1**	**-4.81**	**.232**	**.279**	**.669**	**4.70**	**-.000**	**-.001**	**-54.7**
Stddev	.011	.001	2.3	.39	.081	.694	1.43	1.49	.018	.060	2.3
%RSD	22.4	3.62	17.5	8.07	34.8	249.	214.	31.7	44500.	5320.	4.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Sample Name: ICSA Acquired: 07/26/2023 11:54:39 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**48072.**	**608010.**	**143110.**
Stddev	181.	1455.	463.
%RSD	.37692	.23927	.32350

Sample Name: ICSAB Acquired: 07/26/2023 12:02:50 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3131	Ca3158	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**546.**	**450000.**	**513.**	**505.**	**479.**	**433000.**	**469.**	**467.**	**502.**	**458.**	**510.**
Stddev	2.	3340.	6.	4.	2.	1580.	3.	3.	3.	6.	4.
%RSD	.420	.744	1.21	.715	.496	.364	.573	.621	.622	1.31	.724
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Cu3247	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**588.**	**489000.**	**421000.**	**466000.**	**470.**	**500.**	**497.**	**459.**	**403.**	**477.**	**481.**
Stddev	3.	3820.	3280.	1440.	6.	3.	3.	3.	5.	1.	16.
%RSD	.554	.780	.779	.310	1.26	.667	.553	.629	1.16	.291	3.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Tl1908	V_2908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	**444.**	**458.**	**485.**	**424.**	**101.**	**94.3**	**96.1**	**9920.**	**505.**	**515.**	**465.**
Stddev	5.	4.	6.	3.	1.	1.3	.2	49.	2.	3.	4.
%RSD	1.06	.813	1.22	.663	1.18	1.37	.244	.491	.405	.558	.965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Sample Name: ICSAB Acquired: 07/26/2023 12:02:50 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**472.**	**497.**	**99.8**	**104.**	**92800.**
Stddev	6.	4.	.2	.	631.
%RSD	1.36	.720	.182	.210	.680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**48424.**	**609920.**	**143270.**
Stddev	131.	7001.	381.
%RSD	.26990	1.1478	.26612

Sample Name: ICVLL ag Acquired: 07/26/2023 12:18:02 Type: Unk
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**10.6**	**6.41**	**-.776**	**-.156**	**.049**	**8.25**	**-.065**	**-.011**	**-.209**	**.653**	**46.0**	**125.**	**4.11**
Stddev	.5	.77	1.82	.123	.082	.64	.066	.017	.502	.714	9.2	75.	.16
%RSD	5.09	12.0	234.	79.2	167.	7.70	103.	158.	241.	109.	20.0	60.0	3.78

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L
Avg	**.103**	**.318**	**.166**	**1.65**	**2.12**	**1.32**	**-1.04**	**.015**	**.292**	**-.061**	**.018**	**-19.2**	**-2.29**
Stddev	.023	.442	.197	.91	1.57	1.61	1.28	.333	.091	.015	.005	2.6	.76
%RSD	22.6	139.	119.	55.3	74.1	122.	123.	2270.	31.1	23.8	30.4	13.5	33.2

Elem	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**.048**	**.791**	**-.472**	**-.900**	**.066**	**-.276**	**2.00**
Stddev	.030	.391	1.13	1.50	.009	.037	4.78
%RSD	63.7	49.5	240.	166.	14.0	13.2	239.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**54253.**	**683890.**	**148490.**
Stddev	87.	4538.	278.
%RSD	.16081	.66354	.18706

Sample Name: ccv1 Acquired: 07/26/2023 16:40:16 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3131	Ca3158	Ca3968	Cd2288	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **279.**	**4640.**	**4730.**	**4770.**	**4690.**	**468.**	**4780.**	**4760.**	**471.**	**4580.**	**4910.**	**4710.**
Stddev	1.	10.	8.	8.	7.	1.	8.	61.	1.	39.	8.	12.
%RSD	.487	.218	.175	.175	.146	.287	.162	1.28	.208	.841	.155	.244
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	500.											
Range	-10.4%											

Elem	Cu3247	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4680.**	**4870.**	**4660.**	**4840.**	**4820.**	**4730.**	**4670.**	**4890.**	**4800.**	**4900.**	**4790.**	**4590.**
Stddev	5.	34.	11.	28.	43.	36.	11.	10.	12.	12.	10.	11.
%RSD	.117	.702	.234	.572	.897	.757	.244	.204	.252	.250	.209	.246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Sb2068	Se2062	Tl1908	V_2908	Zn2062	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	**4760.**	**4910.**	**4670.**	**4750.**	**4720.**	**45.4**	**49.4**	**49.6**	**5000.**	**4820.**	**4790.**	**4740.**
Stddev	9.	31.	8.	13.	8.	.4	.1	.1	15.	6.	44.	10.
%RSD	.184	.629	.171	.279	.169	.950	.245	.273	.309	.124	.921	.202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Sample Name: ccv1 Acquired: 07/26/2023 16:40:16 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**4680.**	**4640.**	**48.3**	**49.7**	**47500.**
Stddev	46.	9.	.1	.1	77.
%RSD	.985	.197	.284	.263	.163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**52293.**	**637710.**	**149910.**
Stddev	118.	4231.	221.
%RSD	.22529	.66348	.14759

Sample Name: ccv2 Acquired: 07/26/2023 16:47:18 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.0**	**489.**	**478.**	**479.**	**509.**	**47.4**	**498.**	**47.5**	**48.6**	**498.**	**512.**	**475.**	**498.**
Stddev	.5	3.	4.	8.	.	.2	2.	.2	.4	1.	.	4.	2.
%RSD	.965	.523	.782	1.74	.092	.499	.340	.395	.855	.199	.073	.946	.302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Cu3247	Fe2343	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**489.**	**506.**	**479.**	**510.**	**490.**	**488.**	**507.**	**515.**	**505.**	**467.**	**511.**	**513.**	**520.**
Stddev	1.	5.	3.	5.	5.	1.	1.	1.	1.	2.	3.	4.	1.
%RSD	.231	.994	.640	1.03	.939	.256	.125	.156	.118	.515	.600	.724	.152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	V_2908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**486.**	**456.**	**475.**	**4.92**	**5.05**	**484.**	**497.**	**494.**	**499.**	**469.**	**467.**	**4.89**	**4.88**
Stddev	4.	4.	2.	.02	.02	5.	2.	2.	2.	5.	2.	.03	.06
%RSD	.731	.972	.341	.458	.390	.960	.329	.376	.307	.967	.415	.577	1.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Sample Name: ccv2 Acquired: 07/26/2023 16:47:18 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	S_1820
Units	ug/L
Avg	**4660.**
Stddev	17.
%RSD	.367

Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53721.**	**672040.**	**151080.**
Stddev	213.	6006.	497.
%RSD	.39720	.89373	.32876

Sample Name: ccb Acquired: 07/26/2023 16:54:03 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.396**	**.397**	**-2.03**	**.120**	**-.084**	**.245**	**.033**	**.158**	**.086**	**-.287**	**-.224**	**.306**	**.066**
Stddev	.322	.655	2.24	.253	.128	.080	.064	.224	.405	.491	1.03	.032	.045
%RSD	81.2	165.	110.	211.	152.	32.8	197.	142.	474.	171.	458.	10.4	67.9
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**1.03**	**-.089**	**.340**	**1.03**	**.047**	**1.42**	**.354**	**.031**	**-.131**	**-.004**	**-16.9**	**-1.55**	**-.046**
Stddev	.16	.565	3.12	.83	4.87	1.92	.221	.061	.012	.003	5.3	.45	.028
%RSD	15.8	632.	918.	80.7	10300.	135.	62.3	201.	9.17	72.3	31.3	28.8	62.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**-.091**	**1.41**	**-1.06**	**.006**	**-.579**	**.195**
Stddev	.390	.56	1.15	.014	.070	3.55
%RSD	430.	40.0	109.	226.	12.0	1820.
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: ccb Acquired: 07/26/2023 16:54:03 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**54559.**	**682950.**	**153000.**
Stddev	75.	11552.	313.
%RSD	.13752	1.6915	.20486

Sample Name: msdw1348149 Acquired: 07/26/2023 17:38:41 Type: Unk
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3131	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.4**	**6040.**	**798.**	**738.**	**906.**	**19.1**	**267000.**	**18.0**	**188.**	**86.1**	**98.8**
Stddev	.4	13.	3.	11.	1.	.1	1040.	.2	.	.6	.7
%RSD	2.03	.209	.362	1.48	.140	.668	.389	1.13	.220	.667	.666

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**6810.**	**6810.**	**136000.**	**698.**	**556.**	**2240.**	**2180.**	**193.**	**176.**	**201.**	**761.**
Stddev	28.	23.	497.	2.	1.	2.	4.	1.	.	1.	6.
%RSD	.404	.331	.366	.245	.141	.070	.162	.315	.168	.575	.813

Elem	Tl1908	V_2924	Zn2138	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**699.**	**165.**	**194.**	**111.**	**116.**	**120.**	**15400.**	**43.1**	**2090.**	**.660**	**1800.**
Stddev	1.	1.	.	.	1.	.	33.	.8	3.	.400	9.
%RSD	.080	.452	.184	.335	.511	.154	.214	1.85	.161	60.6	.478

Elem	Li6707	K_7664	K_7698	S_1820
Units	ug/L	mg/L	mg/L	ug/L
Avg	**47.7**	**97.4**	**100.**	**21300.**
Stddev	.8	.1	.	20.
%RSD	1.59	.134	.058	.093

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**48337.**	**612020.**	**148750.**
Stddev	102.	1277.	238.
%RSD	.21074	.20873	.16020

Sample Name: ccv1 Acquired: 07/26/2023 18:15:11 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3131	Ca3158	Ca3968	Cd2288	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **277.**	**4600.**	**4660.**	**4760.**	**4680.**	**468.**	**4800.**	**4710.**	**476.**	**4550.**	**4920.**	**4630.**
Stddev	1.	7.	20.	10.	13.	1.	16.	26.	1.	25.	15.	9.
%RSD	.472	.157	.420	.206	.279	.149	.324	.557	.207	.556	.301	.185
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	500.											
Range	-10.4%											

Elem	Cu3247	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4720.**	**4870.**	**4680.**	**4780.**	**4800.**	**4790.**	**4680.**	**4920.**	**4800.**	**4960.**	**4780.**	**4600.**
Stddev	9.	30.	13.	29.	43.	32.	5.	16.	10.	13.	13.	15.
%RSD	.180	.607	.285	.612	.886	.677	.105	.328	.216	.261	.268	.330
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Sb2068	Se2062	Tl1908	V_2908	Zn2062	Na3302	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	**4760.**	**4880.**	**4580.**	**4720.**	**4690.**	**44.9**	**49.6**	**50.0**	**5000.**	**4870.**	**4780.**	**4700.**
Stddev	11.	13.	9.	9.	14.	.8	.4	.4	10.	11.	42.	14.
%RSD	.236	.258	.190	.183	.292	1.89	.714	.819	.190	.227	.887	.292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Sample Name: ccv1 Acquired: 07/26/2023 18:15:11 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**4610.**	**4630.**	**47.9**	**49.2**	**47600.**
Stddev	25.	10.	.3	.2	114.
%RSD	.539	.210	.560	.478	.239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**51448.**	**623260.**	**148440.**
Stddev	124.	3582.	849.
%RSD	.24092	.57466	.57216

Sample Name: ccv2 Acquired: 07/26/2023 18:22:14 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3131	Ca3968	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**47.0**	**483.**	**476.**	**483.**	**510.**	**47.2**	**497.**	**47.5**	**48.8**	**494.**	**512.**	**480.**	**492.**
Stddev	.3	2.	2.	5.	1.	.1	1.	.2	.7	1.	1.	3.	1.
%RSD	.701	.427	.503	1.10	.195	.260	.248	.326	1.34	.208	.176	.698	.102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Cu3247	Fe2343	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**490.**	**506.**	**480.**	**513.**	**496.**	**485.**	**511.**	**522.**	**505.**	**468.**	**513.**	**505.**	**511.**
Stddev	1.	4.	1.	4.	4.	1.	1.	1.	1.	2.	2.	7.	3.
%RSD	.134	.791	.165	.728	.746	.202	.230	.135	.266	.328	.318	1.31	.529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	V_2908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077	Sn1899	B_2496	Li6707	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**482.**	**453.**	**468.**	**4.91**	**5.10**	**478.**	**499.**	**492.**	**498.**	**462.**	**464.**	**4.89**	**4.87**
Stddev	2.	3.	1.	.00	.01	6.	2.	1.	2.	4.	2.	.04	.05
%RSD	.461	.749	.208	.048	.159	1.19	.315	.238	.379	.948	.489	.711	1.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Sample Name: ccv2 Acquired: 07/26/2023 18:22:14 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	S_1820
Units	ug/L
Avg	**4680.**
Stddev	5.
%RSD	.112

Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**52927.**	**656050.**	**151130.**
Stddev	64.	5603.	199.
%RSD	.12001	.85409	.13146

Sample Name: ccb Acquired: 07/26/2023 18:28:58 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3131	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.744**	**.396**	**-1.52**	**-.074**	**-.024**	**.884**	**-.086**	**.035**	**-.391**	**.038**	**-.735**	**.658**	**.091**
Stddev	.422	.631	2.27	.293	.017	.074	.092	.049	.189	.685	.262	.029	.058
%RSD	56.8	159.	150.	397.	71.8	8.35	106.	139.	48.3	1810.	35.6	4.45	63.5
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

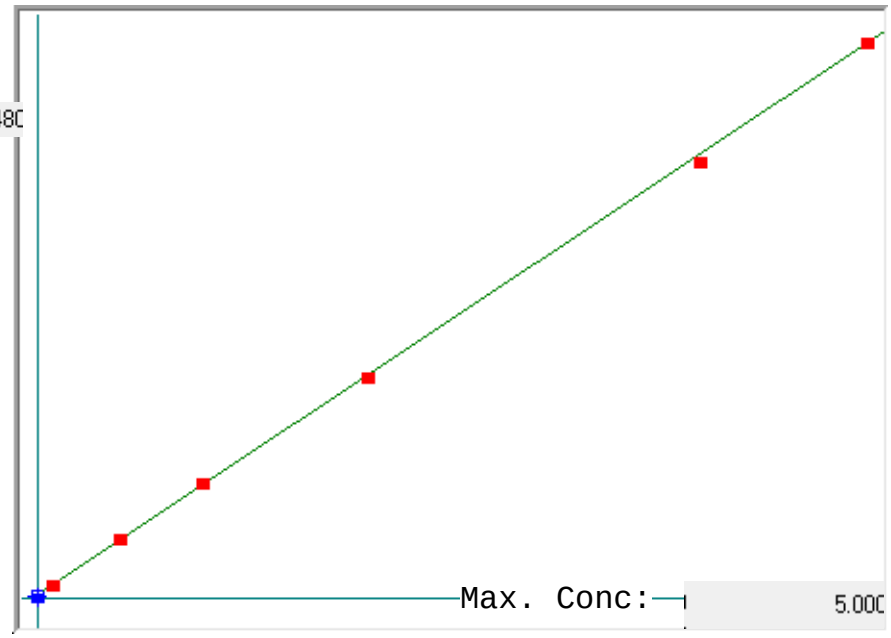
Elem	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	Si2516	Ti3234	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**1.07**	**.097**	**.691**	**4.31**	**4.65**	**-1.19**	**.083**	**.200**	**-.166**	**.008**	**-22.3**	**-1.92**	**.091**
Stddev	.24	.297	.679	2.03	2.39	1.22	.394	.074	.009	.005	1.8	.46	.056
%RSD	22.5	306.	98.2	47.1	51.4	102.	472.	36.9	5.35	54.0	8.15	24.2	61.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Sn1899	B_2496	Li6707	K_7664	K_7698	S_1820
Units	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Avg	**-.023**	**2.56**	**-.650**	**.019**	**-.607**	**2.59**
Stddev	.668	.81	1.71	.019	.040	3.18
%RSD	2900.	31.8	263.	101.	6.65	123.
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: ccb Acquired: 07/26/2023 18:28:58 Type: QC
Method: DOD Calibration Updated 060614(v5766) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**53875.**	**668210.**	**152780.**
Stddev	248.	4488.	470.
%RSD	.46072	.67162	.30775

Hg LIQUIDS



A= 0.0000e+000

B= 1.3440e-004

C= -2.9390e-002

Rho= 0.9994891

Accept= Accepted

Accepted Date=

07/21/23 10:20

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	0.000	0.000	220	6.339	210	220	225	226	
0.1	0.100	0.093	-0.007	913	3.4 %	866	907	932	948	
0.5	0.500	0.523	0.023	4108	3.2 %	3945	4038	4155	4297	
1.0	1.000	1.030	0.030	7881	3.1 %	7558	7771	7988	8209	
2.0	2.000	1.988	-0.012	15009	3.7 %	14270	14743	15284	15741	
4.0	4.000	3.928	-0.072	29441	2.8 %	28266	29130	29924	30447	
5.0	5.000	5.008	0.008	37479	2.9 %	35988	37017	38028	38886	

072123W

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 21 Jul 2023 08:56:36

Sample ID	Date	Element	Units	Extended ID	Mean
CALIBRATION BLANK	21 Jul 2023 09:58:10	Hg			220
0.1	21 Jul 2023 10:01:19	Hg			913
0.5	21 Jul 2023 10:04:31	Hg			4109
1.0	21 Jul 2023 10:07:42	Hg			7882
2.0	21 Jul 2023 10:10:53	Hg			15010
4.0	21 Jul 2023 10:14:04	Hg			29442
5.0	21 Jul 2023 10:17:14	Hg			37480
ICV	21 Jul 2023 10:20:24	Hg			100.9% 3.028
ICB	21 Jul 2023 10:26:44	Hg			-0.018
LCSW	21 Jul 2023 10:29:53	Hg			2.000
MBW	21 Jul 2023 10:36:12	Hg			0.028
1347297	21 Jul 2023 10:39:22	Hg			0.002
1347300	21 Jul 2023 10:42:32	Hg			0.020
MBW	21 Jul 2023 10:48:51	Hg			0.002
1346384	21 Jul 2023 10:52:00	Hg			-0.017
DUP1346384	21 Jul 2023 10:55:10	Hg			-0.015
1348149	21 Jul 2023 10:58:21	Hg			-0.012
CCV	21 Jul 2023 11:01:31	Hg			96.8% 2.905
CCB	21 Jul 2023 11:07:51	Hg			-0.013
1347738	21 Jul 2023 11:11:00	Hg			0.119
1346696	21 Jul 2023 11:14:11	Hg			0.019
1347297	21 Jul 2023 11:17:23	Hg			0.003
1347300	21 Jul 2023 11:20:32	Hg			0.014
DUP1347300	21 Jul 2023 11:23:41	Hg			0.023
MSW1346384	21 Jul 2023 11:26:52	Hg			1.677
MSDW1346384	21 Jul 2023 11:30:03	Hg			1.672
MSW1347300	21 Jul 2023 11:33:12	Hg			1.894
MSDW1347300	21 Jul 2023 11:36:22	Hg			1.837
CCV	21 Jul 2023 11:39:31	Hg			93.2% 2.795
CCB	21 Jul 2023 11:45:51	Hg			-0.015

072123W DETAILED

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 21 Jul 2023 08:56:36

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CALIBRATION BLANK - 1	21 Jul 2023 09:58:10	Hg			210	-
CALIBRATION BLANK - 2	21 Jul 2023 09:58:10	Hg			220	-
CALIBRATION BLANK - 3	21 Jul 2023 09:58:10	Hg			225	-
CALIBRATION BLANK - 4	21 Jul 2023 09:58:10	Hg			226	-
0.1 - 1	21 Jul 2023 10:01:19	Hg			866	-
0.1 - 2	21 Jul 2023 10:01:19	Hg			907	-
0.1 - 3	21 Jul 2023 10:01:19	Hg			932	-
0.1 - 4	21 Jul 2023 10:01:19	Hg			948	-
0.5 - 1	21 Jul 2023 10:04:31	Hg			3945	-
0.5 - 2	21 Jul 2023 10:04:31	Hg			4038	-
0.5 - 3	21 Jul 2023 10:04:31	Hg			4155	-
0.5 - 4	21 Jul 2023 10:04:31	Hg			4297	-
1.0 - 1	21 Jul 2023 10:07:42	Hg			7558	-
1.0 - 2	21 Jul 2023 10:07:42	Hg			7771	-
1.0 - 3	21 Jul 2023 10:07:42	Hg			7988	-
1.0 - 4	21 Jul 2023 10:07:42	Hg			8209	-
2.0 - 1	21 Jul 2023 10:10:53	Hg			14270	-
2.0 - 2	21 Jul 2023 10:10:53	Hg			14743	-
2.0 - 3	21 Jul 2023 10:10:53	Hg			15284	-
2.0 - 4	21 Jul 2023 10:10:53	Hg			15741	-
4.0 - 1	21 Jul 2023 10:14:04	Hg			28266	-
4.0 - 2	21 Jul 2023 10:14:04	Hg			29130	-
4.0 - 3	21 Jul 2023 10:14:04	Hg			29924	-
4.0 - 4	21 Jul 2023 10:14:04	Hg			30447	-
5.0 - 1	21 Jul 2023 10:17:14	Hg			35988	-
5.0 - 2	21 Jul 2023 10:17:14	Hg			37017	-
5.0 - 3	21 Jul 2023 10:17:14	Hg			38028	-
5.0 - 4	21 Jul 2023 10:17:14	Hg			38886	-
ICV - 1	21 Jul 2023 10:20:24	Hg			21873	97.0% 2.910
ICV - 2	21 Jul 2023 10:20:24	Hg			22535	100.0% 2.999
ICV - 3	21 Jul 2023 10:20:24	Hg			23084	102.4% 3.073
ICV - 4	21 Jul 2023 10:20:24	Hg			23492	104.3% 3.128
ICB - 1	21 Jul 2023 10:26:44	Hg			91	-0.017
ICB - 2	21 Jul 2023 10:26:44	Hg			90	-0.017
ICB - 3	21 Jul 2023 10:26:44	Hg			78	-0.019
ICB - 4	21 Jul 2023 10:26:44	Hg			86	-0.018
LCSW - 1	21 Jul 2023 10:29:53	Hg			14463	1.914
LCSW - 2	21 Jul 2023 10:29:53	Hg			14909	1.974
LCSW - 3	21 Jul 2023 10:29:53	Hg			15357	2.035
LCSW - 4	21 Jul 2023 10:29:53	Hg			15664	2.076
MBW - 1	21 Jul 2023 10:36:12	Hg			416	0.027
MBW - 2	21 Jul 2023 10:36:12	Hg			407	0.025
MBW - 3	21 Jul 2023 10:36:12	Hg			433	0.029
MBW - 4	21 Jul 2023 10:36:12	Hg			444	0.030
1347297 - 1	21 Jul 2023 10:39:22	Hg			227	0.001
1347297 - 2	21 Jul 2023 10:39:22	Hg			223	0.001
1347297 - 3	21 Jul 2023 10:39:22	Hg			243	0.003
1347297 - 4	21 Jul 2023 10:39:22	Hg			245	0.004
1347300 - 1	21 Jul 2023 10:42:32	Hg			348	0.017
1347300 - 2	21 Jul 2023 10:42:32	Hg			371	0.020
1347300 - 3	21 Jul 2023 10:42:32	Hg			369	0.020
1347300 - 4	21 Jul 2023 10:42:32	Hg			377	0.021
MBW - 1	21 Jul 2023 10:48:51	Hg			231	0.002
MBW - 2	21 Jul 2023 10:48:51	Hg			237	0.002
MBW - 3	21 Jul 2023 10:48:51	Hg			238	0.003
MBW - 4	21 Jul 2023 10:48:51	Hg			238	0.003
1346384 - 1	21 Jul 2023 10:52:00	Hg			75	-0.019
1346384 - 2	21 Jul 2023 10:52:00	Hg			83	-0.018
1346384 - 3	21 Jul 2023 10:52:00	Hg			96	-0.016
1346384 - 4	21 Jul 2023 10:52:00	Hg			108	-0.015
DUP1346384 - 1	21 Jul 2023 10:55:10	Hg			90	-0.017
DUP1346384 - 2	21 Jul 2023 10:55:10	Hg			114	-0.014
DUP1346384 - 3	21 Jul 2023 10:55:10	Hg			114	-0.014
DUP1346384 - 4	21 Jul 2023 10:55:10	Hg			119	-0.013
1348149 - 1	21 Jul 2023 10:58:21	Hg			131	-0.012
1348149 - 2	21 Jul 2023 10:58:21	Hg			128	-0.012
1348149 - 3	21 Jul 2023 10:58:21	Hg			122	-0.013
1348149 - 4	21 Jul 2023 10:58:21	Hg			131	-0.012
CCV - 1	21 Jul 2023 11:01:31	Hg			20897	92.6% 2.779
CCV - 2	21 Jul 2023 11:01:31	Hg			21567	95.6% 2.869
CCV - 3	21 Jul 2023 11:01:31	Hg			22177	98.4% 2.951
CCV - 4	21 Jul 2023 11:01:31	Hg			22681	100.6% 3.019
CCB - 1	21 Jul 2023 11:07:51	Hg			120	-0.013
CCB - 2	21 Jul 2023 11:07:51	Hg			102	-0.016
CCB - 3	21 Jul 2023 11:07:51	Hg			132	-0.012
CCB - 4	21 Jul 2023 11:07:51	Hg			131	-0.012
1347738 - 1	21 Jul 2023 11:11:00	Hg			1062	0.113
1347738 - 2	21 Jul 2023 11:11:00	Hg			1087	0.117
1347738 - 3	21 Jul 2023 11:11:00	Hg			1119	0.121

072123W DETAILED

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 21 Jul 2023 08:56:36

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
1347738 - 4	21 Jul 2023 11:11:00	Hg			1135	0.123
1346696 - 1	21 Jul 2023 11:14:11	Hg			347	0.017
1346696 - 2	21 Jul 2023 11:14:11	Hg			359	0.019
1346696 - 3	21 Jul 2023 11:14:11	Hg			364	0.020
1346696 - 4	21 Jul 2023 11:14:11	Hg			368	0.020
1347297 - 1	21 Jul 2023 11:17:23	Hg			242	0.003
1347297 - 2	21 Jul 2023 11:17:23	Hg			236	0.002
1347297 - 3	21 Jul 2023 11:17:23	Hg			241	0.003
1347297 - 4	21 Jul 2023 11:17:23	Hg			257	0.005
1347300 - 1	21 Jul 2023 11:20:32	Hg			306	0.012
1347300 - 2	21 Jul 2023 11:20:32	Hg			322	0.014
1347300 - 3	21 Jul 2023 11:20:32	Hg			327	0.015
1347300 - 4	21 Jul 2023 11:20:32	Hg			337	0.016
DUP1347300 - 1	21 Jul 2023 11:23:41	Hg			377	0.021
DUP1347300 - 2	21 Jul 2023 11:23:41	Hg			386	0.022
DUP1347300 - 3	21 Jul 2023 11:23:41	Hg			385	0.022
DUP1347300 - 4	21 Jul 2023 11:23:41	Hg			398	0.024
MSW1346384 - 1	21 Jul 2023 11:26:52	Hg			12120	1.600
MSW1346384 - 2	21 Jul 2023 11:26:52	Hg			12594	1.663
MSW1346384 - 3	21 Jul 2023 11:26:52	Hg			12930	1.708
MSW1346384 - 4	21 Jul 2023 11:26:52	Hg			13155	1.739
MSDW1346384 - 1	21 Jul 2023 11:30:03	Hg			12088	1.595
MSDW1346384 - 2	21 Jul 2023 11:30:03	Hg			12447	1.643
MSDW1346384 - 3	21 Jul 2023 11:30:03	Hg			12868	1.700
MSDW1346384 - 4	21 Jul 2023 11:30:03	Hg			13225	1.748
MSW1347300 - 1	21 Jul 2023 11:33:12	Hg			13651	1.805
MSW1347300 - 2	21 Jul 2023 11:33:12	Hg			14158	1.873
MSW1347300 - 3	21 Jul 2023 11:33:12	Hg			14573	1.929
MSW1347300 - 4	21 Jul 2023 11:33:12	Hg			14857	1.967
MSDW1347300 - 1	21 Jul 2023 11:36:22	Hg			13240	1.750
MSDW1347300 - 2	21 Jul 2023 11:36:22	Hg			13733	1.816
MSDW1347300 - 3	21 Jul 2023 11:36:22	Hg			14138	1.871
MSDW1347300 - 4	21 Jul 2023 11:36:22	Hg			14436	1.911
CCV - 1	21 Jul 2023 11:39:31	Hg			20220	(L)89.6% 2.688
CCV - 2	21 Jul 2023 11:39:31	Hg			20784	92.1% 2.764
CCV - 3	21 Jul 2023 11:39:31	Hg			21290	94.4% 2.832
CCV - 4	21 Jul 2023 11:39:31	Hg			21770	96.5% 2.896
CCB - 1	21 Jul 2023 11:45:51	Hg			104	-0.015
CCB - 2	21 Jul 2023 11:45:51	Hg			100	-0.016
CCB - 3	21 Jul 2023 11:45:51	Hg			108	-0.015
CCB - 4	21 Jul 2023 11:45:51	Hg			106	-0.015

METALS
LOGBOOK
DOCUMENTS

MICP WATER QSM Analytical Run
273760 on 7/24/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1351983							ICP K TOTAL QSM 5.0				
				L	1348149							
	1351984							ICP NA TOTAL QSM 5.0				
				L	1348149							
	1351985							ICP TOTAL QSM 5.0				
				L	1348149							
	1351986							ICP K TOTAL QSM 5.0				
				PDSW	1348149							
	1351987							ICP NA TOTAL QSM 5.0				
				PDSW	1348149							
	1351988							ICP TOTAL QSM 5.0				
				PDSW	1348149							
	1350325							MICP WATER QSM				
				ICV					0			
	1350326							MICP WATER QSM				
				ICVLL					0			
	1350327							MICP WATER QSM				
				ICB					0			
	1350328							MICP WATER QSM				
				ICSA					0			
	1350329							MICP WATER QSM				
				ICSAB					0			
	1350330							MICP WATER QSM				
				ICVLL					0			
	1350331							MICP WATER QSM				
				CCV1					0			
	1350332							MICP WATER QSM				
				CCV2					0			
	1350333							MICP WATER QSM				
				CCB					0			
	1349320							ICP K TOTAL QSM 5.0				
				LCSW					130560			
	1349320							ICP NA TOTAL QSM 5.0				
				LCSW					130560			
	1349320							ICP TOTAL QSM 5.0				
				LCSW					130560			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpAF09.tmp

MICP WATER QSM Analytical Run
273760 on 7/24/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349319								ICP K TOTAL QSM 5.0				
					MBW					130560			
	1349319								ICP NA TOTAL QSM 5.0				
					MBW					130560			
	1349319								ICP TOTAL QSM 5.0				
					MBW					130560			
179047	1348149		7/14/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP K TOTAL QSM 5.0		GW	4	
		49IDW								130560			
179047	1348149		7/14/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP NA TOTAL QSM 5.0		GW	4	
		49IDW								130560			
179047	1348149		7/14/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP TOTAL QSM 5.0		GW	4	
		49IDW								130560			
	1349321		7/14/2023	12:55					ICP K TOTAL QSM 5.0				
		49IDW			DUP	1348149				130560			
	1349321		7/14/2023	12:55					ICP NA TOTAL QSM 5.0				
		49IDW			DUP	1348149				130560			
	1349321		7/14/2023	12:55					ICP TOTAL QSM 5.0				
		49IDW			DUP	1348149				130560			
	1349322		7/14/2023	12:55					ICP K TOTAL QSM 5.0				
		49IDW			MSW	1348149				130560			
	1349322		7/14/2023	12:55					ICP NA TOTAL QSM 5.0				
		49IDW			MSW	1348149				130560			
	1349322		7/14/2023	12:55					ICP TOTAL QSM 5.0				
		49IDW			MSW	1348149				130560			
	1349323		7/14/2023	12:55					ICP K TOTAL QSM 5.0				
		49IDW			MSDW	1349322				130560			
	1349323		7/14/2023	12:55					ICP NA TOTAL QSM 5.0				
		49IDW			MSDW	1349322				130560			
	1349323		7/14/2023	12:55					ICP TOTAL QSM 5.0				
		49IDW			MSDW	1349322				130560			
	1350336								MICP WATER QSM				
					CCV1					0			
	1350337								MICP WATER QSM				
					CCV2					0			
	1350338								MICP WATER QSM				
					CCB					0			

36 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MERCURY QSM 5.0 Analytical Run
273833 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1351269								MERCURY QSM 5.0				
					ICV					0			
	1351270								MERCURY QSM 5.0				
					ICB					0			
	1346625								MERCURY TOTAL QSM 5.0				
					LCSW					130488			
	1346624								MERCURY TOTAL QSM 5.0				
					MBW					130488			
178887	1346384		7/10/2023	16:05			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	MERCURY TOTAL QSM 5.0		GW	4	
		54IDW								130488			
	1346626		7/10/2023	16:05					MERCURY TOTAL QSM 5.0				
		54IDW			DUP	1346384				130488			
179047	1348149		7/14/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	MERCURY TOTAL QSM 5.0		GW	4	
		49IDW								130488			
	1351271								MERCURY QSM 5.0				
					CCV					0			
	1351272								MERCURY QSM 5.0				
					CCB					0			
	1346627		7/10/2023	16:05					MERCURY TOTAL QSM 5.0				
		54IDW			MSW	1346384				130488			
	1346628		7/10/2023	16:05					MERCURY TOTAL QSM 5.0				
		54IDW			MSDW	1346627				130488			
	1351273								MERCURY QSM 5.0				
					CCV					0			
	1351274								MERCURY QSM 5.0				
					CCB					0			

13 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

PrepWrkSht2
on 7/24/2023

Prep Batch: **130560**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1349319	MBW	0	ICP K TOTAL QSM 5.0			LIQUID			
	1349319	MBW	0	ICP NA TOTAL QSM 5.0			LIQUID			
	1349319	MBW	0	ICP TOTAL QSM 5.0			LIQUID			
	1349320	LCSW	0	ICP K TOTAL QSM 5.0			LIQUID			
	1349320	LCSW	0	ICP NA TOTAL QSM 5.0			LIQUID			
	1349320	LCSW	0	ICP TOTAL QSM 5.0			LIQUID			
179047	1348149			ICP K TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	7/14/23 12:55	7/29/23	4
	1348149			ICP NA TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	7/14/23 12:55	7/29/23	4
	1348149			ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	7/14/23 12:55	7/29/23	4
	1349321	DUP	1348149	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349321	DUP	1348149	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349321	DUP	1348149	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349322	MSW	1348149	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349322	MSW	1348149	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349322	MSW	1348149	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349323	MSDW	1349322	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		
	1349323	MSDW	1349322	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		

PrepWrkSht2
on 7/24/2023

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1349323	MSDW	1349322	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	7/14/23 12:55		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

PrepWrkSht2
on 7/26/2023

Prep Batch: **130488**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1346624	MBW		MERCURY TOTAL QSM 5.0			LIQUID				
	1346625	LCSW		MERCURY TOTAL QSM 5.0			LIQUID				
178887	1346384			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	7/10/23	16:05	7/23/23	4
179047	1348149			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	7/14/23	12:55	7/29/23	4
	1346626	DUP	1346384	MERCURY TOTAL QSM 5.0		54IDW	GROUND WATER	7/10/23	16:05		
	1346627	MSW	1346384	MERCURY TOTAL QSM 5.0		54IDW	GROUND WATER	7/10/23	16:05		
	1346628	MSDW	1346627	MERCURY TOTAL QSM 5.0		54IDW	GROUND WATER	7/10/23	16:05		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp1185.tmp

Metals Digestion Bench Sheet

Program: QSM
*Matrix: GW

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA As & Se Liquids

Prep Batch #:	130560
Prep Method:	200.2
Analyst:	NAH
Date:	07/18/2023
Start Time:	12:12

Prep Analyst: BMM
Balance ID:
End Date: 07/19/2023
End Time: 00:57
Digestion Tube Lot #: 3574
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC,corrected): 90
Final-Digestion Temp (ºC,corrected): 90

Reagent:	Ref. #
Nitric Acid:	AB.723
Hydrochloric Acid:	AB.722
Hydrogen Peroxide:	

Unless otherwise noted, Hot Block A uses Thermometer WCT33 and Hot Block B uses Thermometer WCT24.

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
1349319	(MB)			50.0	50
1349320	(LCS)			50.0	50
1348149				50.0	50
	Comments:				50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
1349321	(DUP)			50.0	50
1349322	(MS)	Parent Sample		50.0	50
1349323	(MSD)	1348149		50.0	50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.1	M15785
0.2	M15986
0.5	M15865
0.5	M15895

LCS Spike Amount (ml)	Spike Ref. #
0.1	M15785
0.2	M15986
0.5	M15865
0.5	M15895

Reviewed x

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M16064
ICV/LCSW ID: M16065

*Matrix: GW
Balance ID:

Prep Batch #:	130488
Prep Method:	7470A
Analyst:	MDS
Date:	07/18/2023
Start Time:	13:20

7470A= Hg Liquids
7471A= Hg Solids

End Date: 07/18/2023
End Time: 15:20

Digestion Tube Lot #: 32622010
Block Used: A
Cell Position for Temp. Check: F-3
Initial-DigestionTemp (ºC,corrected): 91.1
Final-Digestion Temp (ºC,corrected): 91.8
Additional KMnO4 added (ml):
Aqua Regia added (ml)
Calibration Stds: M16063

Reagent:	Ref. #
HNO3:	AB.722
H2SO4:	AB.724
NaCl/Hydrox.SO4:	M16069
KMnO4:	M16066
K2S2O8:	M16067
Aqua-Regia:	

Unless noted otherwise, Hot Block A uses Thermometer WCT33 and Hot Block B uses Thermometer WCT24.

	Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	1346624	(MB)			25.0	25
	1346625	(LCS)			25.0	25
	1346384				25.0	25
	1348149	Comments:			25.0	25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
	1346626	(DUP) if applicable			25.0	25
	1346627	(MS)	Parent Sample		25.0	25
	1346628	(MSD)	1346384		25.0	25
Leave >>		(DUP) if applicable				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP) if applicable				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A:

Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100	M16065

B:

Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date: X

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 2-19-23	Data File: 000results	Date of review: 7/28/23
Cal Std ID: MIS901 LIMS # : 273760	Analyst: [illegible]	Reviewer: MPS	Approved? Yes No

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Prep Batch Check

QC Parameters: 6010 / 200.7 / QSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r ≤ 0.995 / r > 0.998	✓		✓		
2) ICV: 90-110% / 95-105%	✓		✓		
2) ICVLL: 70-130% / 80-120%	✓		✓		
3) ICB: < 3X IDL / <LOD / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% / 80-120%					
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)	✓		✓		
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	Comments:
Prep Batch ID#: 130560 Dig. Meth. 200.2	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD or ≤ ½ RL	✓	✓	✓		Ag > LOD ≤ ½ RL "B" Sample < LOD No flag.
Spiked samples in batch:					
a) 1398149 matrix = Soil	✓	✓	✓	✓	Al, Mn, Tl
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					JCP MSDW
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:	THERMO M SERIES AA			Hydra II Hg ANALYZER		
Analysis Date: 7/21/23	Data File: 072123w		Date Review: 7-21-23	Analyte: Hg		
Cal Std ID: M16063	LIMS # : 273833	Analyst: MDS	Reviewer:	Approved? Yes	No	

Prep Batch Check ✓

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		—		
2) ICV: 90-110% 95-105%	✓		—		
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓		—		
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓		—		
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)			—		
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 130488 Dig. Meth. 7470a	✓		—		
LCS - generated limits or project specific limits	✓		—		
MB - <LOD / <2.2X LOD / ≤ ½RL	✓	✓	—	—	Hg > MDL. MB reanalyzed prior to samples and was acceptable
Spiked samples in batch:					
a) 1346384 matrix = ow	✓	✓	—	—	Dup invalid
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version V5740 V5739	Comments
7/7/23	1058/0240	JD	070723	DODCal u	273474 273466 273470 273467 273430 273471 273468 273472 273452	240	m15901 m15902 m15903	V5732 V5731	m15900,914 m15800,801 m15250
7/10/23	0849 1741	JD	071023	DODCal u	273462 273463 273507 273492,93 273491 273495	240	m15901 m15902 m15903	V5733 V5736 V5735	m15900,914 m15800,801 m15250
7/11/23	1352/1726	JD	071123	DODCal u	273532	240	m15901 m15902 m15903	V5738	m15900,914 m15800,801 m15250
7/12/23	0949/2322	JD	071223	DODCal u	273544 273560 273595 273589 273534,35 273633 273558	240	m15901 m15902 m15903	~~V5747~~ V5742	m15900,914 m15800,801 m15250
7/13/23	1056/1920	JD	071323	DODCal u	273612 273608 273606,610,607	240	m15901 m15902 m15903	V5747 V5744	m15900,914 m15800,801 m15250
7/14/23	1115/0702	JD	071423	DODCal u	273660 273635 273677,78 273633 273631 273629 273634,30 273629	240	m15901 m15902 m15903	V5749 V5748	m15900,914 m15800,801 m15250
7-17-23	0945/0835	JD	071723	DODCal u	273674 273675 76 73 79	250	m15901 m15903 m15902	V5750	m15900,914 m15800,801 m15250
7-18-23	0823/1708	JD	071823	DODCal u	273753 273736 273700 273606	250	m15901 m15903 m15902	V5751	m15900,914 m15800,801 m15250
7-19-23	0711/1443	JD	071923	DODCal u	273760 273757,58,59	250	m15901 m15903 m15902	V5754	m15900,914 m15800,801 m15250
7-20-23	0915/0525	JD	072023	DODCal u	273863,864 273871,72,73 273844 273886 273882 273883,884	250	m15901 m15903 m15902	V5763 V5756	m15900,914 m15800,801 m15250
07-24-23	1059/0111	JD	072423	DODCal u	273930 273929 273929 273931 44	250	m15901 m15903 m15902	V5764	m15900,914 m15800,801 m15250
07/26/23	0910/0639	JD	072623	DODCal u	273951,273935,33,32 273950,953 273982 273990 273989 991 273990 273988 274021,22 274023,23,24	250	m15901 m15907 m15903	V5766	m15900,914 m15800,801 m15250

Comments:

Checked By / Date:

CT Laboratories

Mercury Analyzer Instrument Run Log

Instrument ID: Cetac M-6000A

Analysis Date	Start Time	End Time	Analyst	LIMS Run # (s)	Method File ID #	Cal. Std. ID #	Lamp Current (mA)	Analysis Tube Lot #	Comments
7/6/23	0945	1320	MDS	273440, 273441, 273442 273436, 273437, 273438, 273439	070623W	M160048	7.509	61212119	$SnCl_2$: M160055
7/7/23	0929	1303	MDS	273463, 273464	070723S	M160048	7.655	61212119	$SnCl_2$: M160055
7/12/23	0957	1326	MDS	273577 273572, 273573, 273574, 273575	071223W	M160056	7.868	61212119	$SnCl_2$: M160062
7/13/23	1016	1123	MDS	273576	071323W	M160056	7.898	61212119	$SnCl_2$: M160062
7/19/23	1222	1348	MDS	273784, 273785	071923S	M160063	7.423	61212119	$SnCl_2$: M160070
7/20/23	0900	1311	MDS	273837, 273838, 273839 273833, 273834, 273835, 273836,	072023W	M160063	7.501	61212119	$SnCl_2$: M160070
7/21/23	0958	1145	MDS	273833, 273834, 273837, 273838	072123W	M160063	7.571	61212119	$SnCl_2$: M160070

Reviewed By/Date:_____

Type	Date/Time	Message	User name	Application	Sequence Name
	07/18/2023 14:24:05	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/18/2023 14:29:07	Closing will close the method and all associated samples.	NAH	Analyst	
	07/18/2023 14:30:47	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/18/2023 14:38:06	Running lcss130545 (21)	NAH	Analyst	S_DOD Calibration
	07/18/2023 14:44:40	Running mbs135045 (22)	NAH	Analyst	S_DOD Calibration
	07/18/2023 14:52:01	Running 1347749 (23)	NAH	Analyst	S_DOD Calibration
	07/18/2023 14:59:34	Running l1347749 (24)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:07:05	Running dup1347749 (25)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:14:34	Running mss1347749 (26)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:21:43	Running msds1347749 (27)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:28:50	Running pdss1347749 (28)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:35:47	Running 1347753 (29)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:43:08	Running 1347754 (30)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:50:42	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/18/2023 15:57:28	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:04:08	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:11:27	Running 1347755 (31)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:18:41	Running 1349249 (32)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:26:26	Running 1349253 (33)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:34:12	Running MSW1349253 (34)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:41:16	Running MSDW1349253 (35)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:48:21	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	07/18/2023 16:55:35	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/18/2023 17:02:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/18/2023 17:08:58	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/18/2023 17:16:17	Plasma off	NAH	iTEVA Control Center	
	07/18/2023 17:16:18	Plasma extinguished successfully	NAH	Analyst	
	07/18/2023 17:16:20	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	07/19/2023 06:43:24	E2208 - : Plasma ignition failed; RF seems OK. Check your sample intro	NAH	Analyst	
	07/19/2023 06:44:54	Plasma On	NAH	iTEVA Control Center	
	07/19/2023 06:45:01	Plasma ignition successful	NAH	Analyst	
	07/19/2023 06:45:47	D33534 - Debug:Wavelength check : x = -0.784, y =-0.242	NAH	Analyst	
	07/19/2023 07:11:13	Sequence Started	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:11:13	Autosampler Run Started	NAH	Analyst	
	07/19/2023 07:11:34	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:18:55	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:19:24	The standard CalStd7=50 will be permanently removed from the standar	NAH	Analyst	
	07/19/2023 07:26:15	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:33:35	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:40:56	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:46:03	Closing will close the method and all associated samples.	NAH	Analyst	
	07/19/2023 07:48:16	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	07/19/2023 07:55:34	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:02:42	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:09:42	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:16:22	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:22:05	Closing will close the method and all associated samples.	NAH	Analyst	
	07/19/2023 08:24:05	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:32:12	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:39:31	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:47:49	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	07/19/2023 08:56:01	Running Ag 1000 Ba 20000 (15)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	07/19/2023 09:03:38	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:10:57	Running icv (16)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:18:00	Running icv (16)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:25:03	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:32:17	Running icb (17)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:39:36	Running icb (17)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:46:55	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	07/19/2023 09:54:11	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:02:04	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:09:26	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:16:45	Running ICVLL AG (1)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:24:05	Running LCSW130559 (2)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:31:10	Running mbw130559 (3)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:38:30	Running 1348817 (4)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:46:08	Running 1349201 (5)	NAH	Analyst	S_DOD Calibration
	07/19/2023 10:53:37	Running 1349202 (6)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:01:13	Running msw1349202 (7)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:08:24	Running msdw1349202 (8)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:15:36	Running pdsw1349202 (9)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:22:48	Running 1349291 (10)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:30:10	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:36:56	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:43:38	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:50:57	Running msw1349291 (11)	NAH	Analyst	S_DOD Calibration
	07/19/2023 11:57:56	Running msdw1349291 (12)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:04:56	Running pdsw1349291 (13)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:11:56	Running 1349292 (14)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:19:21	Running 1349293 (15)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:26:47	Running 1349294 (16)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:34:05	Running 1349295 (17)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:41:31	Running 1349296 (18)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:48:57	Running 1349297 (19)	NAH	Analyst	S_DOD Calibration
	07/19/2023 12:56:19	Running 1349298 (20)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:03:50	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:10:33	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:17:14	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:24:33	Running lcsw130560 (21)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:31:38	Running mbw130560 (22)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:38:59	Running 1348149 (23)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:46:12	Running l1348149 (24)	NAH	Analyst	S_DOD Calibration
	07/19/2023 13:53:49	Running dup1348149 (25)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:01:02	Running msw1348149 (26)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:08:20	Running msdw1348149 (27)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:15:14	Running pdsw1348149 (28)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:22:24	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:29:38	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:36:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:43:00	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/19/2023 14:50:20	Plasma off	NAH	iTEVA Control Center	
	07/19/2023 14:50:20	Plasma extinguished successfully	NAH	Analyst	
	07/19/2023 14:50:22	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	07/20/2023 06:47:52	Plasma On	NAH	iTEVA Control Center	

Type	Date/Time	Message	User name	Application	Sequence Name
	07/25/2023 19:36:07	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/25/2023 19:43:28	Plasma off	NAH	iTEVA Control Center	
	07/25/2023 19:43:29	Plasma extinguished successfully	NAH	Analyst	
	07/25/2023 19:43:31	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	07/26/2023 06:43:17	Plasma On	NAH	iTEVA Control Center	
	07/26/2023 06:43:23	Plasma ignition successful	NAH	Analyst	
	07/26/2023 06:44:10	D33534 - Debug:Wavelength check : x = -0.686, y =-0.286	NAH	Analyst	
	07/26/2023 08:55:24	Autosampler Run Started	NAH	Analyst	
	07/26/2023 08:55:24	Sequence Started	NAH	Analyst	S_DOD Calibration
	07/26/2023 08:55:45	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:03:07	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:06:08	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:10:18	Sequence Started	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:10:18	Autosampler Run Started	NAH	Analyst	
	07/26/2023 09:10:38	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:18:00	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:25:19	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:28:24	Closing will close the method and all associated samples.	NAH	Analyst	
	07/26/2023 09:32:41	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:40:03	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:47:25	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	07/26/2023 09:54:45	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:01:59	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:09:02	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:15:26	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:23:08	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:31:05	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:38:32	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:47:06	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	07/26/2023 10:55:48	Running Ag 1000 Ba 20000 (15)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:03:27	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:10:46	Running icv (16)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:17:47	Closing will close the method and all associated samples.	NAH	Analyst	
	07/26/2023 11:18:06	Running icv (16)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:25:26	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:32:41	Running icb (17)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:40:01	Running icb (17)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:47:22	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	07/26/2023 11:54:39	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:02:50	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:10:41	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:18:02	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:25:22	Running ccv1 (2)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:32:25	Running ccv2 (3)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:39:10	Running lcsw130679 (4)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:44:06	Closing will close the method and all associated samples.	NAH	Analyst	
	07/26/2023 12:44:44	Closing will close the method and all associated samples.	NAH	Analyst	
	07/26/2023 12:46:15	Running mbw130679 (5)	NAH	Analyst	S_DOD Calibration
	07/26/2023 12:47:27	Closing will close the method and all associated samples.	NAH	Analyst	
	07/26/2023 12:53:35	Running 1350949 (6)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:01:09	Running l1350949 (7)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:08:57	Running dup1350949 (8)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	07/26/2023 13:16:32	Running msw1350949 (9)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:23:59	Running msdw1350949 (10)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:31:20	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:38:23	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:45:09	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:52:29	Running pdsw1350949 (11)	NAH	Analyst	S_DOD Calibration
	07/26/2023 13:59:48	Running mbw diss (12)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:07:09	Running mdl1 diss lod (13)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:14:30	Running mdl 2 diss lod (14)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:21:51	Running mdl 1 diss loq (15)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:29:10	Running mdl 2 diss loq (16)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:36:30	Running mbw130681 (17)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:43:50	Running LOD w (18)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:51:10	Running LOQ w (19)	NAH	Analyst	S_DOD Calibration
	07/26/2023 14:58:29	Running mdl 1 lod (20)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:05:49	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:12:52	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:19:37	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:26:58	Running mdl 2 lod (21)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:34:19	Running mdl 1 loq1 (22)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:41:40	Running mdl 2 loq2 (23)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:49:01	Running mbs 130683 (24)	NAH	Analyst	S_DOD Calibration
	07/26/2023 15:56:22	Running mdl 1 s1 (25)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:03:39	Running mdl 2 s2 (26)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:10:56	Running lod s1 (27)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:18:12	Running loq s1 (28)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:25:25	Running 1352114 (29)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:32:49	Running 1352115 (30)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:40:16	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:47:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/26/2023 16:54:03	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:01:25	Running 1352116 (31)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:08:59	Running 1352117 (32)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:16:33	Running 1352118 (33)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:23:57	Running msw1352118 (34)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:31:19	Running msdw1352118 (35)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:38:41	Running msdw1348149 (36)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:46:00	Running msw1349253 (37)	NAH	Analyst	S_DOD Calibration
	07/26/2023 17:53:21	Running msdw1349253 (38)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:00:39	Running lcsw130688 (39)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:07:50	Running mbw130688 (40)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:15:11	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:22:14	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:28:58	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:36:20	Running 1351600 (41)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:43:38	Running 1351601 (42)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:50:56	Running 1351602 (43)	NAH	Analyst	S_DOD Calibration
	07/26/2023 18:58:41	Running 1351603 (44)	NAH	Analyst	S_DOD Calibration
	07/26/2023 19:06:33	Running 1351604 (45)	NAH	Analyst	S_DOD Calibration
	07/26/2023 19:13:51	Running 1351605 (46)	NAH	Analyst	S_DOD Calibration
	07/26/2023 19:21:13	Running 1351606 (47)	NAH	Analyst	S_DOD Calibration
	07/26/2023 19:29:01	Running 1351607 (48)	NAH	Analyst	S_DOD Calibration

Standard Log #:	M16090	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/26/2023	Expiration Date:	08/26/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16091	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/26/2023	Expiration Date:	08/26/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16092	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/26/2023	Expiration Date:	07/27/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16093	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/27/2023	Expiration Date:	08/27/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16094	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/27/2023	Expiration Date:	08/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M16007 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16087	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/26/2023	Expiration Date:	10/30/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16088	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/26/2023	Expiration Date:	10/30/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16089	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/26/2023	Expiration Date:	04/2024
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M16085	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	07/25/2023	Lot #:	1-048NA
Expiration Date (if any):	07/30/2024	Catalog #:	XSPIKE-1-250

Standard ID#:	M16086	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	07/25/2023	Lot #:	1-049NA
Expiration Date (if any):	07/30/2024	Catalog #:	XCTWI-1-500

		Instrument:	GFAA
Standard Log #:	M16082	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/24/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15904 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M16083	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	07/24/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15904 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M16084	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	07/24/2023	Expiration Date:	03/28/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15905 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M16081	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	07/21/2023	Expiration Date:	07/2024

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	N/A	1000	0.01
As	2	M15825	1000	0.1
Pb	2	M15827	10000	0.01
Sb	2	M15828	1000	0.1
Se	2	M15824	1000	0.1
Tl	2	M15782	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M16077	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	IRON 250mL
Date Received:	07/21/2023	Lot #:	1240670-23
Expiration Date (if any):	01/18/2025	Catalog #:	4400-10M261

Standard ID#:	M16078	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	MAGNESIUM 250mL
Date Received:	07/21/2023	Lot #:	1303817-13
Expiration Date (if any):	01/18/2025	Catalog #:	4400-10M311

Standard ID#:	M16079	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	POTASSIUM 250mL
Date Received:	07/21/2023	Lot #:	1301246-11
Expiration Date (if any):	01/18/2025	Catalog #:	4400-10M411

Standard ID#:	M16080	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	POTASSIUM 500mL
Date Received:	07/21/2023	Lot #:	1386899
Expiration Date (if any):	01/02/2026	Catalog #:	4400-10M411-500

Standard ID#:	M16071	Vendor:	LabChem
Analyst:	NAH	Chemical:	Turbidity Standard (Formazin)
Date Received:	07/20/2023	Lot #:	43060283
Expiration Date (if any):	06//29/2024	Catalog #:	LC262901

Standard ID#:	M16072	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	SILICON 100mL
Date Received:	07/21/2023	Lot #:	1380434
Expiration Date (if any):	10/05/2025	Catalog #:	S4400-1000504F

Standard ID#:	M16073	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	SULFUR 250mL
Date Received:	07/21/2023	Lot #:	1205121.25
Expiration Date (if any):	01/18/2025	Catalog #:	4400-10M544

Standard ID#:	M16074	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	SILICON 100mL
Date Received:	07/21/2023	Lot #:	1380434
Expiration Date (if any):	10/05/2025	Catalog #:	S4400-1000504F

Standard ID#:	M16075	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	SODIUM 250mL
Date Received:	07/21/2023	Lot #:	1339275-12
Expiration Date (if any):	01/18/2025	Catalog #:	4400-10M521

Standard ID#:	M16076	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	CALCIUM 250mL
Date Received:	07/21/2023	Lot #:	1340158-7
Expiration Date (if any):	01/18/2025	Catalog #:	4400-10M91

Standard Log #:	M16066	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/18/2023	Expiration Date:	08/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16067	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/18/2023	Expiration Date:	08/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16068	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/18/2023	Expiration Date:	07/19/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16069	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/19/2023	Expiration Date:	08/19/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16070	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/19/2023	Expiration Date:	08/19/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M16007 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16063	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/18/2023	Expiration Date:	10/30/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16064	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/18/2023	Expiration Date:	10/30/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16065	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/18/2023	Expiration Date:	04/2024
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M16059	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/11/2023	Expiration Date:	08/11/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16060	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/11/2023	Expiration Date:	08/11/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

Standard Log #:	M16061	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/12/2023	Expiration Date:	08/12/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16062	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/12/2023	Expiration Date:	08/12/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M16007 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16056	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/11/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16057	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/11/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16058	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/11/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M16051	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/05/2023	Expiration Date:	08/05/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16052	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/05/2023	Expiration Date:	08/05/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16053	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/05/2023	Expiration Date:	07/06/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16054	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/06/2023	Expiration Date:	08/06/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16055	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/06/2023	Expiration Date:	08/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M16007 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16048	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/05/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16049	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/05/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16050	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/05/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M16046	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	06/30/2023	Expiration Date:	07/2024

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M15825	10,000
Pb	1	1000	M15827	10,000
Tl	1	1000	M15782	10,000
Se	1	1000	M15824	10,000
Sb	1	1000	M15828	10,000
Ag	0.1	1000	N/A	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard ID#:	M16047	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod
Date Received:	06/30/2023	Lot #:	1359911
Expiration Date (if any):	10/31/2024	Catalog #:	039043

Standard Log #:	M16041	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	06/28/2023	Expiration Date:	11/282023
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC541 and brought up to volume.		

Standard Log #:	M16042	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	06/28/2023	Expiration Date:	11/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.723 and brought up to volume.		

Standard Log #:	M16043	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/28/2023	Expiration Date:	06/28/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M16041. Dilute to 20 L and mix.		

Standard Log #:	M16044	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/28/2023	Expiration Date:	06/28/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M16041. Dilute to 20 L and mix.		

Standard Log #:	M16045	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/28/2023	Expiration Date:	06/28/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M16041. Dilute to 20 L and mix.		

Standard Log #:	M16036	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/27/2023	Expiration Date:	07/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16037	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/27/2023	Expiration Date:	07/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16038	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/27/2023	Expiration Date:	06/28/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16039	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/28/2023	Expiration Date:	07/28/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16040	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/28/2023	Expiration Date:	07/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15863 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16033	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/27/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16034	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/27/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16035	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/27/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M16028	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/20/2023	Expiration Date:	07/20/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16029	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/20/2023	Expiration Date:	07/20/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16030	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/20/2023	Expiration Date:	06/21/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16031	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/21/2023	Expiration Date:	07/21/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16032	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/21/2023	Expiration Date:	07/21/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15863 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16025	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/20/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16026	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/20/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16027	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/20/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M16020	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/13/2023	Expiration Date:	07/13/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16021	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/13/2023	Expiration Date:	07/13/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16022	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/13/2023	Expiration Date:	06/14/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16023	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/14/2023	Expiration Date:	07/14/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16024	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/14/2023	Expiration Date:	07/14/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15863 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16017	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/13/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16018	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/13/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16019	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/13/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M16012	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/06/2023	Expiration Date:	07/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16013	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/06/2023	Expiration Date:	07/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16014	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/06/2023	Expiration Date:	06/07/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16015	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/07/2023	Expiration Date:	07/07/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16016	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/07/2023	Expiration Date:	07/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15863 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M16009	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/06/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16010	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/06/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16011	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/06/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M16007	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stanous Chloride
Date Received:	06/02/2023	Lot #:	43041540
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M16008	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stanous Chloride
Date Received:	06/02/2023	Lot #:	43041540
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M16002	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/31/2023	Expiration Date:	06/30/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M16003	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/31/2023	Expiration Date:	06/30/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16004	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/31/2023	Expiration Date:	06/01/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M16005	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/01/2023	Expiration Date:	07/01/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M16006	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/01/2023	Expiration Date:	07/01/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15863 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15999	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/31/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M16000	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/31/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M16001	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/31/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15994	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/23/2023	Expiration Date:	06/23/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15995	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/23/2023	Expiration Date:	06/23/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15996	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/23/2023	Expiration Date:	05/24/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M15997	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/24/2023	Expiration Date:	06/24/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15998	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/24/2023	Expiration Date:	06/24/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15863 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15991	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/23/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15992	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/23/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15993	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/23/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15988	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	05/22/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15904 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15989	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	05/22/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15904 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15990	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	05/22/2023	Expiration Date:	03/28/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15905 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15986	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/18/2023	Lot #:	60-052CR
Expiration Date (if any):	05/30/2024	Catalog #:	XSPIKE-1-250

Standard ID#:	M15987	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/18/2023	Lot #:	10-114-AJ
Expiration Date (if any):	05/30/2024	Catalog #:	XCTWI-5-500

Standard Log #:	M15981	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/17/2023	Expiration Date:	06/17/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15982	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/17/2023	Expiration Date:	06/17/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15983	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/17/2023	Expiration Date:	05/18/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M15984	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/18/2023	Expiration Date:	06/18/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15985	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/18/2023	Expiration Date:	06/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15862 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15978	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/17/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15979	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/17/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15980	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/17/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15977	Vendor:	Thermo Scientific
Analyst:	NAH	Chemical:	Glycene 99%
Date Received:	05/12/2023	Lot #:	Z051001
Expiration Date (if any):	12/05/2025	Catalog #:	036435

Standard Log #:	M15972	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/08/2023	Expiration Date:	06/08/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15973	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/08/2023	Expiration Date:	06/08/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15974	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/09/2023	Expiration Date:	05/10/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M15975	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/09/2023	Expiration Date:	06/09/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15976	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/09/2023	Expiration Date:	06/09/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15862 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15969	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/08/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15970	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/08/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15971	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/08/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15964	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/02/2023	Expiration Date:	06/02/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15965	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/02/2023	Expiration Date:	06/02/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15966	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/02/2023	Expiration Date:	05/03/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M15967	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/03/2023	Expiration Date:	06/03/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15968	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/03/2023	Expiration Date:	06/03/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15862 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15961	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/02/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15962	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/02/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15963	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/02/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15957	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	04/27/2023	Lot #:	1285486-20
Expiration Date (if any):	10/2024	Catalog #:	S4400-1000504F

Standard ID#:	M15958	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	04/27/2023	Lot #:	1324964-12
Expiration Date (if any):	10/2024	Catalog #:	4400-10M11

Standard ID#:	M15959	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 mg/L
Date Received:	04/27/2023	Lot #:	1263195-12
Expiration Date (if any):	10/2024	Catalog #:	4400-10M521

Standard ID#:	M15960	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	04/27/2023	Lot #:	1205121-25
Expiration Date (if any):	10/2024	Catalog #:	4400-10M544

Standard Log #:	M15952	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/25/2023	Expiration Date:	05/25/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15953	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/25/2023	Expiration Date:	05/25/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15954	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/25/2023	Expiration Date:	04/26/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M15955	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/26/2023	Expiration Date:	05/26/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15956	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/26/2023	Expiration Date:	05/26/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15862 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15949	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/25/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15950	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/25/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15951	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/25/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15944	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/18/2023	Expiration Date:	05/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15945	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/18/2023	Expiration Date:	05/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15946	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/18/2023	Expiration Date:	04/19/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.722 in a hood.		

Standard Log #:	M15947	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/19/2023	Expiration Date:	05/19/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15948	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/19/2023	Expiration Date:	05/19/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15862 and brought up to volume.		

Standard ID#:	M15940	Vendor:	Mettler Toledo
Analyst:	NAH	Chemical:	Friscolyt-B Electrolyte Solution
Date Received:	04/18/2023	Lot #:	1H332H
Expiration Date (if any):	11/2025	Catalog #:	51340053

		Instrument:	HydraII
Standard Log #:	M15941	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/18/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15942	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/18/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15943	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/18/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15937	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/14/2023	Expiration Date:	04/14/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15938	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/14/2023	Expiration Date:	04/14/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15939	Reagent:	TCLP EXTRACTION FLUID #2
Analyst:	BMM	pH:	2.88 ± 0.05
Prep Date:	04/14/2023	Expiration Date:	04/14/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703. Dilute to 20 L and mix.		

Standard ID#:	M15936	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	04/11/2023	Lot #:	1359913
Expiration Date (if any):	09/30/2024	Catalog #:	039043

Standard Log #:	M15931	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/10/2023	Expiration Date:	05/10/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15932	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/10/2023	Expiration Date:	05/10/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15933	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/10/2023	Expiration Date:	04/11/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15934	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/11/2023	Expiration Date:	05/11/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15854 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15935	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/11/2023	Expiration Date:	05/11/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15862 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15928	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/10/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15929	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/10/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15930	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/10/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15925	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/07/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15904 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15926	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/07/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15904 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15927	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/07/2023	Expiration Date:	03/28/2024
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15905 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15920	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/04/2023	Expiration Date:	05/04/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15921	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/04/2023	Expiration Date:	05/04/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15922	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/04/2023	Expiration Date:	04/05/2023
Prep:	Carefully mixed **3** parts HCl AB.723 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15923	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/05/2023	Expiration Date:	05/05/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15924	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/05/2023	Expiration Date:	05/05/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.723 and dissolved **100 g** Stannous chloride M15708 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15917	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/04/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15918	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/04/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15919	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/04/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15916	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL/LOD/LOQ solid
Prep Date:	04/04/2023	Expiration Date:	01/2024

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15826	1000	2
Al	800	M15787	**10000**	4
As	40	M15825	1000	2
Ba	40	M15540	1000	2
Be	8	M15767	1000	0.4
Ca	1000	M15783	**10000**	5
Cd	10	M15766	1000	3
Co	20	M15788	1000	1
Cr	20	M15791	**10000**	0.1
Cu	20	M15780	**10000**	0.1
Fe	600	M15896	**10000**	3
Mg	1000	M15790	**10000**	5
Mn	20	M15789	**10000**	0.1
Mo	20	M15663	1000	1
Ni	20	M15823	1000	1
Pb	20	M15827	**10000**	0.1
Sb	40	M15828	1000	2
Se	40	M15824	1000	2
Tl	40	M15781	1000	2
V	20	M15781	1000	1
Zn	20	M15829	**10000**	0.1
Na	10000	M15664	**10000**	50
K	10000	M15765	**10000**	50
B	40	M15523	1000	2
Si	xxxxx	Mxxxx	1000	xxxxx
Li	xxxxx	Mxxxxx	1000	xxxxx
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	40	M15893	1000	2
S	xxxxxx	Mxxxxx	**10000**	xxxxxx

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15915	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL/LOD/LOQ liquid
Prep Date:	04/04/2023	Expiration Date:	01/2024

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15826	1000	0.25
Al	120	M15787	**10000**	0.6
As	40	M15825	1000	2.0
Ba	4	M15540	1000	0.2
Be	8	M15767	1000	0.4
Ca	100	M15783	**10000**	0.5
Cd	2	M15766	1000	0.1
Co	5	M15788	1000	0.25
Cr	5	M15791	**10000**	.025
Cu	40	M15780	**10000**	0.2
Fe	80	M15896	**10000**	0.4
Mg	40	M15790	**10000**	0.2
Mn	5	M15789	**10000**	.025
Mo	5	M15603	1000	0.25
Ni	5	M15823	1000	0.25
Pb	10	M15827	**10000**	.05
Sb	20	M15828	1000	1
Se	40	M15824	1000	2
Tl	40	M15782	1000	2
V	5	M15781	1000	0.25
Zn	20	M15829	**10000**	0.1
Na	700	M15664	**10000**	3.5
K	500	M15765	**10000**	2.5
B	40	M15523	1000	2
Si	200	M15792	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	20	M15893	1000	1
S	800	M15786	**10000**	4

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

MRL BASE STD M15914

Analyst NAH

Prep Date 04/04/2023

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15826	1000	1	01/24
Al	400	M15787	10000	2	x
Ba	10	M15540	1000	0.5	x
Be	4	M15767	1000	0.2	x
Cd	5	M15766	1000	0.25	x
Co	10	M15788	1000	0.5	x
Cr	10	M15791	10000	0.05	x
Cu	10	M15780	10000	0.05	x
Mg	500	M15790	10000	2.5	x
Mn	10	M15789	10000	0.05	x
Mo	10	M15663	1000	0.5	x
Ni	10	M15823	1000	0.5	x
Pb	10	M15827	10000	0.05	x
Sb	20	M15828	1000	1	x
V	10	M15781	1000	0.5	x
Zn	10	M15829	10000	0.05	x
K	1000	M15765	10000	5	x
Na	1000	M15664	10000	5	x
As	20	M15825	1000	1	x
Ca	500	M15783	10000	2.5	x
Fe	300	M15896	10000	1.5	x
Se	20	M15824	1000	1	x
Tl	20	M15782	1000	1	x
Si	100	M15792	1000	5	x
B	20	M15523	1000	1	x
Li	20	M15504	1000	1	x
W	50	xxxxxxxxxx	1000	2.5	x
Ti	10	M15893	1000	0.5	x
Sr	10	M15526	1000	0.5	x
Sn	50	M15502	1000	2.5	x
S	300	M15786	10000	1.5	x

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M15909	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/28/2023	Expiration Date:	04/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15910	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/28/2023	Expiration Date:	04/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15911	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/28/2023	Expiration Date:	03/29/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15912	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/29/2023	Expiration Date:	04/29/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15913	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/29/2023	Expiration Date:	04/29/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15708 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15906	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/28/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15907	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/28/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15908	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/28/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M15902	Standard:	CCV1
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	03/28/2023	Expiration Date:	01/2024
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15873 and **50 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and 5 ml M15542 Si and 5 ml 10,000 mg/L M15632 K, M15764 Na, M15786 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15903	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	03/28/2023	Expiration Date:	01/2024
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15873 and 0.5 **mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and .5 ml M15542 Si and 1 ml 10,000 mg/L M15632 K, M15764 Na, M15786 S and brought up to volume with milli-Q H_2O.		

Standard ID#:	M15904	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	03/28/2023	Lot #:	U2-MEB731128
Expiration Date (if any):	03/28/2024	Catalog #:	CTI-SPK-1

Standard ID#:	M15905	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	03/28/2023	Lot #:	U2-MEB731127
Expiration Date (if any):	03/28/2024	Catalog #:	CTI-GFCAL-1

		Instrument:	ICP 6500
Standard Log #:	M15901	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	03/28/2023	Expiration Date:	01/30/2024

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15873, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and **1 mL** of Si (1000 mg/L) M15542 and 1 mL M15499 Ce and 1 ml M15629 Hg and 0.1 ml of 10,000 mg/L M15632 K and M15764 Na and M15786 S and M15662 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15780, **10 mL** of Mn (10,000 mg/L) M15789, **10 mL** of Cr (10,000 mg/L) M15791, **10 mL** Pb (10,000 mg/L) M15827, **10 mL** of Zn (10,000 mg/L) M15829.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15790, **10 mL** of Fe (10,000 mg/L) M15896, **10 mL** of Ca (10,000 mg/L) M15783 and **10 mL** Al (10,000 mg/L) M15787,10 mL of Na (10000) M15764, 10 mL K (10,000) M15632, 10 mL S (10,000) M15786,10 mL P (10,1000), M15662 10 mL Si (1000) M15542.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

		Instrument:	ICP 6500
Standard Log #:	M15900	Standard:	ICV Std. all
Analyst:	NAH	Concentrations:	**12,000 ug/L** Al **10,000 ug/L** Ca, Mg **5000 ug/L** Fe **2000 ug/L** As, Ba, Se, Tl **500 ug/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 ug/L** Cu **200 ug/L** Cr **50 ug/L** Ag, Be, Cd **100 mg/L Na,K,S** 500 ug/L Si
Prep Date:	03/28/2023	Expiration Date:	01/2024
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M15864, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe) M15865, **0.5 mL** Mo (1000 mg/L) M15785, **0.5 mL** B (1000 mg/L) M15523, **0.5 mL** Sr (1000 mg/L) M15526, **0.5 mL** Li (1000 mg/L) M15504, **0.5 mL** Sn (1000 mg/L) M15502, **0.5 mL** Ti (1000 mg/L) M15893, **0.5 mL** Si (1000 mg/L) M15792, **10 mL** S (10000 mg/L) M15894, **10 ml** k 10000 mg/L) M15765, **10 ml** Na (10000 mg/L) M15664		

Standard Log #:	M15898	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/24/2023	Expiration Date:	03/24/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15899	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/24/2023	Expiration Date:	03/24/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard ID#:	M15893	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	03/24/2023	Lot #:	1195496-37
Expiration Date (if any):	09/2024	Catalog #:	S4400-1000623

Standard ID#:	M15894	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	03/24/2023	Lot #:	1205121-25
Expiration Date (if any):	09/2024	Catalog #:	4400-10M544

Standard ID#:	M15895	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	03/24/2024	Lot #:	1137797-65
Expiration Date (if any):	09/2024	Catalog #:	4400-10M411-500

Standard ID#:	M15896	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	03/24/2024	Lot #:	12404670-23
Expiration Date (if any):	09/2024	Catalog #:	4400-10M261

Standard ID#:	M15897	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Interference-A
Date Received:	03/24/2024	Lot #:	3-156AJX
Expiration Date (if any):	09/2024	Catalog #:	INT-A1

Standard Log #:	M15888	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/21/2023	Expiration Date:	04/21/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15889	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/21/2023	Expiration Date:	04/21/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15890	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/21/2023	Expiration Date:	03/22/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15891	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/22/2023	Expiration Date:	04/22/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15892	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/22/2023	Expiration Date:	04/22/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15708 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15885	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/21/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15886	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/21/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15887	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/21/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15880	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/14/2023	Expiration Date:	04/14/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15881	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/14/2023	Expiration Date:	04/14/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15882	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/14/2023	Expiration Date:	03/15/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15883	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/15/2023	Expiration Date:	04/15/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15884	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/15/2023	Expiration Date:	04/15/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15708 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15877	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/14/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15878	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/14/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15879	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/14/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15874	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/14/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15875	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/14/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15876	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/14/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15873	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std.
Date Received:	03/08/2023	Lot #:	9-002AJ
Expiration Date (if any):	03/30/2024	Catalog #:	XCTWI-5-500

Standard Log #:	M15869	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/07/2023	Expiration Date:	04/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15870	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/07/2023	Expiration Date:	04/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15768 and brought up to volume.		

Standard Log #:	M15871	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/08/2023	Expiration Date:	04/08/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15872	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/08/2023	Expiration Date:	04/08/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15708 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15866	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/07/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15867	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/07/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15868	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/07/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15864	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/06/2023	Lot #:	7-155AJ
Expiration Date (if any):	03/30/2024	Catalog #:	XSPIKE-1-500

Standard ID#:	M15865	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/06/2023	Lot #:	7-154AJ
Expiration Date (if any):	03/30/2024	Catalog #:	XCTWI-1

Standard ID#:	M15862	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/03/2023	Lot #:	43020072
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15863	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/03/2023	Lot #:	43020072
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard Log #:	M15858	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2023	Expiration Date:	04/01/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15859	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/01/2023	Expiration Date:	04/01/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15860	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2023	Expiration Date:	04/02/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15861	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2023	Expiration Date:	04/02/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15708 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15855	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15856	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15857	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15853	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/23/2023	Expiration Date:	03/23/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard ID#:	M15854	Vendor:	Thermo Scientific
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	02/24/2023	Lot #:	A0442491
Expiration Date (if any):	N/A	Catalog #:	198530010

Standard Log #:	M15848	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/21/2023	Expiration Date:	03/21/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15849	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/21/2023	Expiration Date:	02/22/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15850	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/22/2023	Expiration Date:	03/22/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15851	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/22/2023	Expiration Date:	03/22/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15852	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/22/2023	Expiration Date:	02/23/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15845	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/21/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15846	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/21/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15847	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/21/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M15841	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/15/2023	Expiration Date:	02/16/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15842	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/15/2023	Expiration Date:	03/15/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15843	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/16/2023	Expiration Date:	03/16/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15844	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/16/2023	Expiration Date:	02/17/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15836	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/14/2023	Expiration Date:	03/14/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15837	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/14/2023	Expiration Date:	03/14/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15838	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/14/2023	Expiration Date:	02/15/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15839	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/15/2023	Expiration Date:	03/15/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15840	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/15/2023	Expiration Date:	03/15/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15833	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/14/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15834	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/14/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15835	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/14/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15830	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/13/2023	Expiration Date:	02/13/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15831	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/13/2023	Expiration Date:	02/13/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15832	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/13/2023	Expiration Date:	02/13/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard ID#:	M15823	Vendor:	CPI
Analyst:	NAH	Chemical:	1000 mg/L
Date Received:	02/13/2023	Lot #:	1240660-28
Expiration Date (if any):	08/2024	Catalog #:	S4400-1000361

Standard ID#:	M15824	Vendor:	CPI
Analyst:	NAH	Chemical:	Se 1000 mg/L
Date Received:	02/13/2023	Lot #:	1242587-13
Expiration Date (if any):	08/2024	Catalog #:	S4400-1000491

Standard ID#:	M15825	Vendor:	CPI
Analyst:	NAH	Chemical:	As 1000 mg/L
Date Received:	02/13/2023	Lot #:	1218353-50
Expiration Date (if any):	08/2024	Catalog #:	S4400-100031

Standard ID#:	M15826	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 1000 mg/L
Date Received:	02/13/2023	Lot #:	1211972-52
Expiration Date (if any):	08/2024	Catalog #:	S4400-1000511

Standard ID#:	M15827	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10000 mg/L
Date Received:	02/13/2023	Lot #:	1035677-41
Expiration Date (if any):	08/2024	Catalog #:	S4400-10M281

Standard ID#:	M15828	Vendor:	CPI
Analyst:	NAH	Chemical:	Sb 1000 mg/L
Date Received:	02/13/2023	Lot #:	1225595-4
Expiration Date (if any):	08/2024	Catalog #:	S4400-100023

Standard ID#:	M15829	Vendor:	CPI
Analyst:	NAH	Chemical:	Zn 10000 mg/L
Date Received:	02/13/2023	Lot #:	1259561-9
Expiration Date (if any):	08/2024	Catalog #:	S4400-10M681

Standard Log #:	M15822	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	02/08/2023	Expiration Date:	06/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M15222	1000	0.01
As	2	M15223	1000	0.1
Pb	2	M15289 (0.1	10000	0.01
Sb	2	M15220	1000	0.1
Se	2	M15217	1000	0.1
Tl	2	M15782	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15817	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/07/2023	Expiration Date:	03/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15818	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/07/2023	Expiration Date:	03/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15819	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/07/2023	Expiration Date:	02/08/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15820	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/08/2023	Expiration Date:	03/08/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15821	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/08/2023	Expiration Date:	03/08/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15814	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/07/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15815	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/07/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15816	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/07/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15813	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	02/06/2023	Expiration Date:	06/2023

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M15223	10,000
Pb	1	1000	M15289	10,000
Tl	1	1000	M15782	10,000
Se	1	1000	M15217	10,000
Sb	1	1000	M15220	10,000
Ag	0.1	1000	M15222	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

		Instrument:	CETAC
Standard Log #:	M15810	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/31/2023	Expiration Date:	02/01/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15811	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/01/2023	Expiration Date:	03/01/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15812	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/01/2023	Expiration Date:	03/01/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15807	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/31/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15808	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/31/2023	Expiration Date:	02/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15809	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/31/2023	Expiration Date:	02/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15805	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/31/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15806	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/31/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M15804	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL LOQ SOLID
Prep Date:	02/01/2023	Expiration Date:	03/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15787	**10000**	4
As	40	M15223	1000	2
Ba	40	M15540	1000	2
Be	8	M15767	1000	0.4
Ca	1000	M15783	**10000**	5
Cd	10	M15766	1000	0.5
Co	20	M15788	1000	1
Cr	20	M15791	**10000**	0.1
Cu	20	M15780	**10000**	0.1
Fe	600	M15522	**10000**	3
Mg	1000	M15790	**10000**	5
Mn	20	M15789	**10000**	0.1
Mo	20	M15785	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15782	1000	2
V	20	M15781	1000	1.0
Zn	20	M15114	**10000**	0.1
Na	10000	M15764	**10000**	50
K	10000	M15631	**10000**	50
B	40	M15523	1000	2
Si	xxxxxxxxx	xxxxxxx	1000	xxxxxx
Li	xxxxxxxxx	xxxxxxx	1000	xxxxxx
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	xxxxxxx	xxxxxxxxxx	1000	xxxxxx
S	xxxxxxxx	xxxxxxxxxx	**10000**	xxxxxx

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15803	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL LOQ LIQUID
Prep Date:	02/01/2023	Expiration Date:	03/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15787	**10000**	0.6
As	40	M15223	1000	0.2
Ba	4	M15540	1000	0.2
Be	8	M15767	1000	0.4
Ca	100	M15783	**10000**	0.5
Cd	2	M15766	1000	0.1
Co	5	M15788	1000	0.25
Cr	5	M15791	**10000**	0.025
Cu	40	M15780	**10000**	0.2
Fe	80	M15522	**10000**	0.4
Mg	40	M15790	**10000**	0.2
Mn	5	M15789	**10000**	.025
Mo	5	M15785	1000	0.25
Ni	5	M15095	1000	0.25
Pb	10	M15045	**10000**	0.05
Sb	20	M15220	1000	1.0
Se	40	M15217	1000	2.0
Tl	40	M15782	1000	2.0
V	5	M15781	1000	0.25
Zn	20	M15114	**10000**	0.1
Na	700	M15764	**10000**	3.5
K	500	M15631	**10000**	2.5
B	40	M15523	1000	2.0
Si	200	M15792	1000	10
Li	20	M15504	1000	1.0
Sr	20	M15526	1000	1.0
Sn	40	M15502	1000	2.0
Ti	xxxxx	xxxxxxxx	1000	xxxxxx
S	800	M15786	**10000**	4

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15802	Standard:	ICV Std. all
Analyst:	NAH	Concentrations:	**12,000 ug/L** Al **10,000 ug/L** Ca, Mg **5000 ug/L** Fe **2000 ug/L** As, Ba, Se, Tl **500 ug/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 ug/L** Cu **200 ug/L** Cr **50 ug/L** Ag, Be, Cd **100 mg/L Na,K,S** 500 ug/L Si
Prep Date:	02/01/2023	Expiration Date:	06/2023
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M15729, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe) M15717, **0.5 mL** Mo (1000 mg/L) M15785, **0.5 mL** B (1000 mg/L) M15523, **0.5 mL** Sr (1000 mg/L) M15526, **0.5 mL** Li (1000 mg/L) M15504, **0.5 mL** Sn (1000 mg/L) M15502, **0.5 mL** Ti (1000 mg/L) xxxxxxxxxx, xxxxxxxxxx, **0.5 mL** Si (1000 mg/L) M15542, **10 mL** S (10000 mg/L) M15786, **10 ml** k 10000 mg/L) M15632, **10 ml** Na (10000 /L) M15664		

		Instrument:	ICP 6500
Standard Log #:	M15800	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	02/01/2023	Expiration Date:	06/2023
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15505 and 15 **mL** 10000 mg/L Fe M15660 5.0 **mL** 1000 mg/L V M15781 5.0 **mL** 1000 mg/L Ce M15499 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15801	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	02/01/2023	Expiration Date:	06/2023
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15505 , **15 mL** Fe (10,000 mg/L) M15660 , **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 , **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15630 , **2.5 mLs Na 10,000 ug/mL** M15764 ,**2.5 mLs k 10,000 ug/mL** M15765 **2.5 mLs S 10,000 ug/mL** M15501 , **0.5 mls Si 1000 ug/mL** M15792 and brought up to volume with milli-Q .		

MRL BASE STD M15799 Analyst NAH

Prep Date 02/01/2023

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	03/2023
Al	400	M15787	10000	2	x
Ba	10	M15540	1000	0.5	x
Be	4	M15767	1000	0.2	x
Cd	5	M15766	1000	0.25	x
Co	10	M15788	1000	0.5	x
Cr	10	M15791	10000	0.05	x
Cu	10	M15780	10000	0.05	x
Mg	500	M15790	10000	2.5	x
Mn	10	M15789	10000	0.05	x
Mo	10	M15785	1000	0.5	x
Ni	10	M15095	1000	0.5	x
Pb	10	M15045	10000	0.05	x
Sb	20	M15220	1000	1	x
V	10	M15781	1000	0.5	x
Zn	10	M15114	10000	0.05	x
K	1000	M15631	10000	5	x
Na	1000	M15764	10000	5	2000 ug/L 10 mls of stanard
As	20	M15223	1000	1	x
Ca	500	M15783	10000	2.5	x
Fe	300	M15522	10000	1.5	x
Se	20	M15217	1000	1	x
Tl	20	M15782	1000	1	x
Si	100	M15792	1000	5	x
B	20	M15523	1000	1	x
Li	20	M15504	1000	1	x
W	50	xxxxxxxxxx	1000	2.5	x
Ti	10	M15503	1000	0.5	x
Sr	10	M15526	1000	0.5	x
Sn	50	M15502	1000	2.5	x
S	300	M15786	10000	1.5	03/2023

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15797	Standard:	CCV1
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/01/2023	Expiration Date:	09/2023
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15630 and **5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and 5 ml M15793 Si and 5 ml 10,000 mg/L M15765 K, M15764 Na, M15501 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15798	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/01/2023	Expiration Date:	09/2023
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15630 and 0.5 **mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and .5 ml M15793 Si and 1 ml 10,000 mg/L M15765 K, M15764 Na, M15501 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15796	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	02/01/2023	Expiration Date:	03/2023

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15630, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15779 and **1 mL** of Si (1000 mg/L) M15792 and 1 mL M15499 Ce and 1 ml M15643 Hg and 0.1 ml of 10,000 mg/L M15631 K and M15664 Na and M15786 S and M15784 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15780, **10 mL** of Mn (10,000 mg/L) M15789, **10 mL** of Cr (10,000 mg/L) M15791, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M15114.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15790, **10 mL** of Fe (10,000 mg/L) M15660, **10 mL** of Ca (10,000 mg/L) M15783 and **10 mL** Al (10,000 mg/L) M15787 ,10 mL of Na (10000) M15764, 10 mL K (10,000) M15765, 10 mL S (10,000) M15501 ,10 mL P (10,1000), M15784 10 mL Si (1000) M15792.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

		Instrument:	GFAA
Standard Log #:	M15793	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/27/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15794	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/27/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15795	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/27/2023	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15789	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1283873-5
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M321

Standard ID#:	M15790	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1194653-34
Expiration Date (if any):	07/2024	Catalog #:	4400-10M311

Standard ID#:	M15791	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1242583-7
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M121

Standard ID#:	M15792	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	01/26/2023	Lot #:	1285486-10
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000504F

Standard ID#:	M15784	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1257053
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M391

Standard ID#:	M15785	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 ug/mL
Date Received:	01/26/2023	Lot #:	1228777-28
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000343

Standard ID#:	M15786	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1205121-25
Expiration Date (if any):	07/2024	Catalog #:	4400-10M544

Standard ID#:	M15787	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1257043-3
Expiration Date (if any):	07/2024	Catalog #:	4400-10M11

Standard ID#:	M15788	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 ug/mL
Date Received:	01/26/2023	Lot #:	1222807-35
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000131

Standard ID#:	M15779	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	01/26/2023	Lot #:	7-008AJ
Expiration Date (if any):	01/30/2024	Catalog #:	XCTWI-4-500

Standard ID#:	M15780	Vendor:	CPI
Analyst:	NAH	Chemical:	10000 ug/mL
Date Received:	01/26/2023	Lot #:	1207839-25
Expiration Date (if any):	07/2024	Catalog #:	S4400-10M141

Standard ID#:	M15781	Vendor:	CPI
Analyst:	NAH	Chemical:	V 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1220562-41
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000651

Standard ID#:	M15782	Vendor:	CPI
Analyst:	NAH	Chemical:	TL 1000 UG/Ml
Date Received:	01/26/2023	Lot #:	1239312-22
Expiration Date (if any):	07/2024	Catalog #:	S4400-1000581

Standard ID#:	M15783	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 ug/mL
Date Received:	01/26/2023	Lot #:	1268108-9
Expiration Date (if any):	07/2024	Catalog #:	4400-10M91

Standard Log #:	M15774	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/24/2023	Expiration Date:	02/24/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15775	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/24/2023	Expiration Date:	02/24/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15776	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/24/2023	Expiration Date:	01/25/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15777	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/25/2023	Expiration Date:	02/25/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15778	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/25/2023	Expiration Date:	02/25/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15771	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/24/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15772	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/24/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15773	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/24/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15768	Vendor:	Thermo Scientific
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	01/23/2023	Lot #:	A0442803
Expiration Date (if any):		Catalog #:	424185000

Standard Log #:	M15769	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/23/2023	Expiration Date:	01/23/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15770	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/23/2023	Expiration Date:	01/23/2024
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard ID#:	M15764	Vendor:	CPI International
Analyst:	NAH	Chemical:	Sodium 10000 mg/L
Date Received:	01/19/2023	Lot #:	4400-10M521
Expiration Date (if any):	02/2024	Catalog #:	1122472-51

Standard ID#:	M15765	Vendor:	CPI International
Analyst:	NAH	Chemical:	Potassium 10000 mg/L
Date Received:	01/19/2023	Lot #:	4400-10M411
Expiration Date (if any):	02/2024	Catalog #:	1137797-61

Standard ID#:	M15766	Vendor:	CPI International
Analyst:	NAH	Chemical:	Cadmium 1000 mg/L
Date Received:	01/19/2023	Lot #:	1144943-25
Expiration Date (if any):	02/2024	Catalog #:	S4400-100081

Standard ID#:	M15767	Vendor:	CPI International
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	01/19/2023	Lot #:	1143802-45
Expiration Date (if any):	02/2024	Catalog #:	S4400-100051

Standard Log #:	M15759	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/17/2023	Expiration Date:	02/17/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15760	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/17/2023	Expiration Date:	02/17/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15761	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/17/2023	Expiration Date:	01/18/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15762	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/18/2023	Expiration Date:	02/18/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15763	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/18/2023	Expiration Date:	02/18/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15707 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15756	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/17/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15757	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/17/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15758	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/17/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15751	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/09/2023	Expiration Date:	02/09/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15752	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/09/2023	Expiration Date:	02/09/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15753	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/09/2023	Expiration Date:	01/10/2023
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15754	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/10/2023	Expiration Date:	02/10/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15755	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/10/2023	Expiration Date:	02/10/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15748	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/09/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15749	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/09/2023	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15750	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/09/2023	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15745	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/28/2022	Expiration Date:	12/28/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15746	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/28/2022	Expiration Date:	12/28/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15747	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/28/2022	Expiration Date:	12/28/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15740	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/27/2022	Expiration Date:	01/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15741	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/27/2022	Expiration Date:	01/27/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15742	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/27/2022	Expiration Date:	12/28/2022
Prep:	Carefully mixed **3** parts HCl AB.720 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15743	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/28/2022	Expiration Date:	01/28/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15744	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/28/2022	Expiration Date:	01/28/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15737	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/27/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15738	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/27/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15739	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/27/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15733	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/19/2022	Expiration Date:	01/19/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15734	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/19/2022	Expiration Date:	01/19/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15735	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/20/2022	Expiration Date:	01/20/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M15584 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15736	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/20/2022	Expiration Date:	01/20/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.720 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15730	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/19/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15731	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/19/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15732	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/19/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15729	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12/19/2022	Lot #:	59-138CR
Expiration Date (if any):	12/30/2023	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M15728	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/15/2022	Expiration Date:	12/16/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15723	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/12/2022	Expiration Date:	01/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15724	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/12/2022	Expiration Date:	01/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15725	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/13/2022	Expiration Date:	12/14/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15726	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/13/2022	Expiration Date:	01/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15727	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/13/2022	Expiration Date:	01/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15720	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/12/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15721	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/12/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15722	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/12/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15717	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12/07/2022	Lot #:	5-109AJ
Expiration Date (if any):	12/30/2023	Catalog #:	XCTWI-1-500

Standard Log #:	M15718	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/08/2022	Expiration Date:	1208/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15719	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/08/2022	Expiration Date:	12/08/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15683. Dilute to 20 L and mix.		

Standard Log #:	M15712	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/06/2022	Expiration Date:	01/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15713	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/06/2022	Expiration Date:	01/06/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15714	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/06/2022	Expiration Date:	12/07/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15715	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/07/2022	Expiration Date:	01/07/2023
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15716	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/07/2022	Expiration Date:	01/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15709	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/06/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15710	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/06/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15711	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/06/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15707	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/02/2022	Lot #:	M227-04
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15708	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/02/2022	Lot #:	M227-04
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	GFAA
Standard Log #:	M15704	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	12/02/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15705	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	12/02/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15706	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	12/02/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15699	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/28/2022	Expiration Date:	12/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15700	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/28/2022	Expiration Date:	12/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15701	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/28/2022	Expiration Date:	11/29/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15702	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/29/2022	Expiration Date:	12/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15703	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/29/2022	Expiration Date:	12/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15696	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/28/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15697	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/28/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15698	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/28/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15695	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/22/2022	Lot #:	59-114CR
Expiration Date (if any):	11/30/2023	Catalog #:	XSPIKE-1-250

Standard ID#:	M15693	Vendor:	SSI PRODUCTS LLC
Analyst:	BMM	Chemical:	TCLP AWR FILTERS 110mm
Date Received:	11/02/2022	Lot #:	400027
Expiration Date (if any):		Catalog #:	

Standard ID#:	M15694	Vendor:	SSI PRODUCTS LLC
Analyst:	BMM	Chemical:	TCLP AWR FILTERS 150mm
Date Received:	11/02/2022	Lot #:	400194
Expiration Date (if any):		Catalog #:	

Standard Log #:	M15688	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/15/2022	Expiration Date:	12/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15689	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/15/2022	Expiration Date:	12/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15690	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/15/2022	Expiration Date:	11/16/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15691	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/16/2022	Expiration Date:	12/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15692	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/16/2022	Expiration Date:	12/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15685	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/15/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15686	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/15/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15687	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/15/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15681	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/07/2022	Expiration Date:	11/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15682	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/07/2022	Expiration Date:	11/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15683	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	11/07/2022	Expiration Date:	04/07/2023
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC438 and brought up to volume.		

Standard Log #:	M15684	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	11/07/2022	Expiration Date:	04/07/2023
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.716 and brought up to volume.		

Standard Log #:	M15676	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/07/2022	Expiration Date:	12/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15677	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/07/2022	Expiration Date:	12/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15678	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/07/2022	Expiration Date:	11/08/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15679	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/08/2022	Expiration Date:	12/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15680	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/08/2022	Expiration Date:	12/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15673	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/07/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15674	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/07/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15675	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/07/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15668	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/31/2022	Expiration Date:	11/31/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15669	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/31/2022	Expiration Date:	11/31/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15670	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/31/2022	Expiration Date:	11/01/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15671	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/2/2022	Expiration Date:	12/2/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15672	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/2/2022	Expiration Date:	12/2/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15665	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/31/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15666	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/31/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15667	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/31/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15660	Vendor:	CPI
Analyst:	NAH	Chemical:	Iron 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1240670-1
Expiration Date (if any):	02/2024	Catalog #:	4400-10M261

Standard ID#:	M15661	Vendor:	CPI
Analyst:	NAH	Chemical:	Magnesium 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1194653.23
Expiration Date (if any):	02/2024	Catalog #:	4400-10M311

Standard ID#:	M15662	Vendor:	CPI
Analyst:	NAH	Chemical:	Phosphorus 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1257053-2
Expiration Date (if any):	04/2024	Catalog #:	S4400-10M391

Standard ID#:	M15663	Vendor:	CPI
Analyst:	NAH	Chemical:	Mollybenum 1000 ug/mL
Date Received:	10/31/2022	Lot #:	1228777-7
Expiration Date (if any):	04/2024	Catalog #:	S4400-1000343

Standard ID#:	M15664	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10000 ug/mL
Date Received:	10/31/2022	Lot #:	1122472-51
Expiration Date (if any):	04/2024	Catalog #:	4400-10M521

		Instrument:	CETAC
Standard Log #:	M15659	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/26/2022	Expiration Date:	10/27/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.719 in a hood.		

Standard Log #:	M15655	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/25/2022	Expiration Date:	11/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15485 and brought up to volume.		

Standard Log #:	M15656	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/25/2022	Expiration Date:	11/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15657	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/26/2022	Expiration Date:	11/26/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15658	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/26/2022	Expiration Date:	11/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15616 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15652	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/25/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15653	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/25/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15654	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/25/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15647	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/18/2022	Expiration Date:	11/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15648	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/18/2022	Expiration Date:	11/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15649	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/18/2022	Expiration Date:	10/19/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15650	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/19/2022	Expiration Date:	11/19/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15651	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/19/2022	Expiration Date:	11/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15644	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/18/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15645	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/18/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15646	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/18/2022	Expiration Date:	10/30/2023
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15643 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15643	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Mercury 1000µg/mL
Date Received:	10/18/2022	Lot #:	CL13-88HGY
Expiration Date (if any):	10/30/2023	Catalog #:	CLHG4-2Y

Standard Log #:	M15638	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/11/2022	Expiration Date:	11/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15639	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/11/2022	Expiration Date:	11/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15640	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/11/2022	Expiration Date:	10/12/2022
Prep:	Carefully mixed **3** parts HCl AB.717 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15641	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/12/2022	Expiration Date:	11/12/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15642	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/12/2022	Expiration Date:	11/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.717 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15635	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/11/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15636	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/11/2022	Expiration Date:	04/2024
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15629 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15637	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/11/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15634	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	10/11/2022	Lot #:	59-092CR
Expiration Date (if any):	10/30/2023	Catalog #:	XSPIKE-1-500

Standard ID#:	M15629	Vendor:	CPI International
Analyst:	NAH	Chemical:	Hg 1000 ug/mL
Date Received:	10/05/2022	Lot #:	1141387-57
Expiration Date (if any):	04/2024	Catalog #:	S4400-1000331

Standard ID#:	M15630	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	10/05/2022	Lot #:	3-134EL
Expiration Date (if any):	09/30/2023	Catalog #:	XCTWI-5-500

Standard ID#:	M15631	Vendor:	CPI International
Analyst:	NAH	Chemical:	K 10000 ug/mL
Date Received:	10/05/2022	Lot #:	1137797-61
Expiration Date (if any):	04/2024	Catalog #:	4400-10M411

Standard ID#:	M15632	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 ug/Ml
Date Received:	10/05/2022	Lot #:	1137797-60
Expiration Date (if any):	04/2024	Catalog #:	4400-10M411-500

Standard ID#:	M15633	Vendor:	GFS Chemicals
Analyst:	NAH	Chemical:	Amco Clear turb std
Date Received:	10/05/2022	Lot #:	22160094
Expiration Date (if any):	10/2023	Catalog #:	8008

		Instrument:	CETAC
Standard Log #:	M15628	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/04/2022	Expiration Date:	10/05/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15624	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/03/2022	Expiration Date:	11/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15625	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/03/2022	Expiration Date:	11/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15626	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/04/2022	Expiration Date:	11/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15627	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/04/2022	Expiration Date:	11/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15621	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15622	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15623	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15617	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/03/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15618	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/03/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15619	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/03/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15620	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	10/03/2022	Lot #:	276713
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard ID#:	M15615	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/15/2022	Lot #:	M138-15
Expiration Date (if any):		Catalog #:	LC25170

Standard ID#:	M15616	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/15/2022	Lot #:	M138-15
Expiration Date (if any):		Catalog #:	LC25170

Standard Log #:	M15610	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/26/2022	Expiration Date:	10/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15611	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/26/2022	Expiration Date:	10/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15612	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/26/2022	Expiration Date:	09/27/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15613	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/27/2022	Expiration Date:	10/27/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15614	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/27/2022	Expiration Date:	10/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15607	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15608	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15609	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/26/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15604	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/27/2022	Expiration Date:	09/27/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15605	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/27/2022	Expiration Date:	09/27/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15606	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/27/2022	Expiration Date:	09/27/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard ID#:	M15603	Vendor:	Supelco
Analyst:	NAH	Chemical:	100 NTU formazin
Date Received:	09/23/2022	Lot #:	LRAD2638
Expiration Date (if any):	05/2024	Catalog #:	TURB100-100ML

Standard ID#:	M15601	Vendor:	Spec Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	09-19-2022	Lot #:	3-097EL
Expiration Date (if any):	09-30-2023	Catalog #:	XCTWI-1-500

Standard ID#:	M15602	Vendor:	Lab Chem
Analyst:	NAH	Chemical:	4000 NTU
Date Received:	09-15-2022	Lot #:	M201-23
Expiration Date (if any):	07/28/2023	Catalog #:	LC262901

Standard Log #:	M15596	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/13/2022	Expiration Date:	10/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15597	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/13/2022	Expiration Date:	10/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15598	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/13/2022	Expiration Date:	09/14/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15599	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/14/2022	Expiration Date:	10/14/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15600	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/14/2022	Expiration Date:	10/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15468 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15593	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/13/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15594	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/13/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15595	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/13/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15588	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/07/2022	Expiration Date:	10/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15589	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/07/2022	Expiration Date:	10/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15590	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/07/2022	Expiration Date:	09/08/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15591	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/08/2022	Expiration Date:	10/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15592	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/08/2022	Expiration Date:	10/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15585	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/07/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15586	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/07/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15587	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/07/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15584	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Sodium Chloride
Date Received:	09/06/2022	Lot #:	218977
Expiration Date (if any):		Catalog #:	S271

Standard Log #:	M15582	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/31/2022	Expiration Date:	09/31/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15583	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/31/2022	Expiration Date:	09/31/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15578	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/30/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15579	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/30/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15580	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/30/2022	Expiration Date:	09/30/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15581	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/30/2022	Expiration Date:	09/30/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M15575	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	08/31/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15505 and 15 **mL** 10000 mg/L Fe M15522 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M15499 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15576	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	08/31/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15505, **15 mL** Fe (10,000 mg/L) M15522, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15259, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15455, **2.5 mLs Na 10,000 ug/mL** M15528 ,**2.5 mLs k 10,000 ug/mL** M15477 **2.5 mLs S 10,000 ug/mL** M15395, **0.5 mls Si 1000 ug/mL** M15088 and brought up to volume with milli-Q .		

		Instrument:	HydraII
Standard Log #:	M15577	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/30/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

MRL BASE STD M15574 Analyst NAH

Prep Date 08/31/2022

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	01/2023
Al	400	M15397	10000	2	--
Ba	10	M15540	1000	0.5	--
Be	4	M15091	1000	0.2	
Cd	5	M15098	1000	0.25	
Co	10	M15019	1000	0.5	
Cr	10	M15027	10000	0.05	
Cu	10	M15021	10000	0.05	
Mg	500	M15174	10000	2.5	
Mn	10	M15023	10000	0.05	
Mo	10	M15170	1000	0.5	
Ni	10	M15095	1000	0.5	
Pb	10	M15045	10000	0.05	
Sb	20	M15045	1000	1	
V	10	M15020	1000	0.5	
Zn	10	M15114	10000	0.05	
K	1000	M15477	10000	5	
Na	1000	M15528	10000	5	
As	20	M15223	1000	1	
Ca	500	M15026	10000	2.5	
Fe	300	M15169	10000	1.5	
Se	20	M15217	1000	1	
Tl	20	M15221	1000	1	
Si	100	M15171	1000	5	
B	20	M15523	1000	1	
Li	20	M15504	1000	1	
W	50	XXXXXX	1000	2.5	
Ti	10	M15221	1000	0.5	
Sr	10	M15526	1000	0.5	
Sn	50	M15502	1000	2.5	
S	300	M15501	10000	1.5	

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M15569	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/23/2022	Expiration Date:	09/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15570	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/23/2022	Expiration Date:	09/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15571	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/23/2022	Expiration Date:	09/23/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15572	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/24/2022	Expiration Date:	09/24/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15433 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15573	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/24/2022	Expiration Date:	09/24/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15566	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15567	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15568	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/23/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15564	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/15/2022	Expiration Date:	09/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15565	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/16/2022	Expiration Date:	09/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

Standard ID#:	M15563	Vendor:	SCP Science
Analyst:	MDS	Chemical:	Palladium/Magnesium Matrix Modifier
Date Received:	08/15/2022	Lot #:	S220707011
Expiration Date (if any):	07/2024	Catalog #:	140-003-192

Standard Log #:	M15562	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL spiking soln
Prep Date:	08/12/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15397	**10000**	4
As	40	M15223	1000	2
Ba	20	M15540	1000	1
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15528	**10000**	50
K	10000	M15477	**10000**	50
B	40	M15523	1000	2
Si	200	M15171	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	20	M15503	1000	1
S	400	M15501	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15561	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ solid QSM
Prep Date:	08/12/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15397	**10000**	4
As	40	M15223	1000	2
Ba	40	M15540	1000	2
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15528	**10000**	50
K	10000	M15477	**10000**	50
B	40	M15523	1000	2
Si	200	M15171	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	200	M15221	1000	1
S	400	M15501	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15560	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	08/12/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15397	**10000**	0.6
As	40	M15223	1000	0.2
Ba	4	M15540	1000	0.2
Be	8	M15091	1000	0.4
Ca	100	M15026	**10000**	0.5
Cd	2	M15098	1000	0.1
Co	5	M15019	1000	0.25
Cr	5	M15027	**10000**	0.025
Cu	40	M15021	**10000**	0.2
Fe	80	M15169	**10000**	0.40
Mg	40	M15174	**10000**	0.20
Mn	5	M15023	**10000**	0.025
Mo	5	M15170	1000	0.25
Ni	5	M15095	1000	0.25
Pb	20	M15045	**10000**	0.10
Sb	20	M15220	1000	1
Se	20	M15217	1000	1
Tl	40	M15221	1000	2
V	5	M15020	1000	0.25
Zn	20	M15114	**10000**	0.10
Na	700	M15528	**10000**	3.5
K	500	M15477	**10000**	2.5
B	40	M15523	1000	2
Si	200	M15171	1000	10
Li	20	M15504	1000	1
Sr	20	M15526	1000	1
Sn	40	M15502	1000	2
Ti	20	M15503	1000	1
S	400	M15501	**10000**	2

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M15559	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	08/10/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15555	Reagent:	SPLP ACID MIX
Analyst:	NAH		60/40 H_2SO_4 - HNO_3
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 200 mL volumetric flask, partially filled with DI H_2O, add **12 g** H_2SO_4 AB.713 and **8 g** HNO_3 AB.715 and bring up to volume using DI H_2O.		

Standard Log #:	M15556	Reagent:	SPLP EXTRACTION FLUID EAST #
Analyst:	NAH	pH:	4.20 ± 0.05
Prep Date:	08/11/2022 pH=4.21	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 4.20 ± 0.05 using 60/40 HNO_3 - H_2SO_4 M15555.		

		Instrument:	GFAA
Standard Log #:	M15557	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	08/10/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15558	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	08/10/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15551	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC438 and brought up to volume.		

Standard Log #:	M15552	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15553	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15554	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/11/2022	Expiration Date:	08/11/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15551. Dilute to 20 L and mix.		

Standard Log #:	M15546	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/10/2022	Expiration Date:	09/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15547	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/10/2022	Expiration Date:	09/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15548	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/10/2022	Expiration Date:	08/11/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15549	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/11/2022	Expiration Date:	09/11/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15550	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/11/2022	Expiration Date:	09/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15543	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15544	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15545	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/10/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15540	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/L
Date Received:	08/09/2022	Lot #:	1232359-4
Expiration Date (if any):	01/2024	Catalog #:	S4400-100041

Standard ID#:	M15541	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	08/09/2022	Lot #:	1137797-46
Expiration Date (if any):	01/2024	Catalog #:	4400-10M411

Standard ID#:	M15542	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	08/09/2022	Lot #:	1000504F
Expiration Date (if any):	01/2024	Catalog #:	1197533-32

		Instrument:	CETAC
Standard Log #:	M15539	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/05/2022	Expiration Date:	08/06/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15537	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/04/2022	Expiration Date:	09/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15538	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/04/2022	Expiration Date:	09/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15533	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15534	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/03/2022	Expiration Date:	09/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15535	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/03/2022	Expiration Date:	09/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15536	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/03/2022	Expiration Date:	08/04/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard ID#:	M15530	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/03/2022	Lot #:	59-034CR
Expiration Date (if any):	07/30/2023	Catalog #:	XSPIKE-1-250

		Instrument:	HydraII
Standard Log #:	M15531	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15532	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M15529	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/01/2022	Expiration Date:	09/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard ID#:	M15522	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1240670-1
Expiration Date (if any):	01/2024	Catalog #:	4400-10M261

Standard ID#:	M15523	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	07/29/2022	Lot #:	1209884-23
Expiration Date (if any):	01//2024	Catalog #:	S4400-100074

Standard ID#:	M15524	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	07/29/2022	Lot #:	1228777-7
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000343

Standard ID#:	M15525	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1112960-75
Expiration Date (if any):	01/2024	Catalog #:	4400-10M91

Standard ID#:	M15526	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	07/29/2022	Lot #:	1194650-12
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000531

Standard ID#:	M15527	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1144484-33
Expiration Date (if any):	01/2024	Catalog #:	4400-10M11

Standard ID#:	M15528	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	07/29/2022	Lot #:	1122472-51
Expiration Date (if any):	01/2024	Catalog #:	4400-10M521

Standard Log #:	M15517	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/27/2022	Expiration Date:	08/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15518	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/27/2022	Expiration Date:	08/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15519	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/27/2022	Expiration Date:	07/28/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15520	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/28/2022	Expiration Date:	08/28/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15521	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/28/2022	Expiration Date:	08/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15467 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15514	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/27/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15515	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/27/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15516	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/27/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15509	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/20/2022	Expiration Date:	08/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15510	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/20/2022	Expiration Date:	08/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15511	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/20/2022	Expiration Date:	07/21/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15512	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/21/2022	Expiration Date:	08/21/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15513	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/21/2022	Expiration Date:	08/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15506	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/20/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15507	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/20/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15508	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/20/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15505	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Interference-A
Date Received:	07/19/2022	Lot #:	3-137SGX
Expiration Date (if any):	07/30/2023	Catalog #:	INT_A1

Standard ID#:	M15499	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	07/14/2022	Lot #:	1237797-6
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000101

Standard ID#:	M15500	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	07/14/2022	Lot #:	12240670-1
Expiration Date (if any):	01/2024	Catalog #:	4400-10M261

Standard ID#:	M15501	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10,000 mg/L
Date Received:	07/14/2022	Lot #:	1205121-18
Expiration Date (if any):	01/2024	Catalog #:	4400-10M544

Standard ID#:	M15502	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/L
Date Received:	07/14/2022	Lot #:	1128650-39
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000613

Standard ID#:	M15503	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	07/14/2022	Lot #:	1195496-15
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000623

Standard ID#:	M15504	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	07/14/2022	Lot #:	1186016-18
Expiration Date (if any):	01/2024	Catalog #:	S4400-1000291

Standard Log #:	M15495	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/12/2022	Expiration Date:	08/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15496	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/12/2022	Expiration Date:	07/13/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15497	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/13/2022	Expiration Date:	08/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15498	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/13/2022	Expiration Date:	08/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

Standard Log #:	M15494	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15489	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/06/2022	Expiration Date:	08/06/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15490	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/06/2022	Expiration Date:	07/07/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15491	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15492	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15493	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/07/2022	Expiration Date:	08/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15486	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/06/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15487	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/06/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15488	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/06/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M15483	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	07/05/2022	Expiration Date:	02/2023
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) <15434, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15069, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14775, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) xxxxxxxx, **0.5 mL** Si (1000 mg/L) M15168, **0.5 mL** S (10000 mg/L) M14677, **0.5 mL** K (10000 mg/L) M15479, and **0.5 mL** Na (10000 mg/L) M15287		

		Instrument:	ICP 6500
Standard Log #:	M15484	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	07/05/2022	Expiration Date:	09/2022
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15068 and 15 **mL** 10000 mg/L Fe M15169 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

Standard ID#:	M15485	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Potassium Permanganate
Date Received:	06/30/2022	Lot #:	217686
Expiration Date (if any):		Catalog #:	P279-212

		Instrument:	ICP 6500
Standard Log #:	M15481	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **100,000 ug/L** K, Na, S. **500 µg/L** Ag, Be, Cd
Prep Date:	07/05/2022	Expiration Date:	02/2023
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15274 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M15259 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15482	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	07/05/2022	Expiration Date:	02/2023
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15274 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M15259 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15480	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	07/05/2022	Expiration Date:	02/28/2023

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15274, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M15259 and **1 mL** of Si (1000 mg/L) M15398 and 1 mL M14682 Ce and 1 ml M15108 Hg and 0.1 ml of 10,000 mg/L M15477 K and M15287 Na and M15395 S and M15166 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15114, **10 mL** of Zn (10,000 mg/L) M15045.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15396, **10 mL** of Fe (10,000 mg/L) M15169, **10 mL** of Ca (10,000 mg/L) M15399 and **10 mL** Al (10,000 mg/L) M15397,10 mL of Na (10000) M15287, 10 mL K (10,000) M15477, 10 mL S (10,000) M15395,10 mL P (10,1000), M15166 10 mL Si (1000) M15398.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

Standard ID#:	M15477	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	06/28/2022	Lot #:	11337797-46
Expiration Date (if any):	12/2023	Catalog #:	4400-10M411

Standard ID#:	M15478	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	06/28/2022	Lot #:	1157358-27
Expiration Date (if any):	12/2023	Catalog #:	4400-10M671

Standard ID#:	M15479	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	06/28/2022	Lot #:	4400-10M411-500
Expiration Date (if any):	12/2023	Catalog #:	1137797-52

Standard Log #:	M15472	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/28/2022	Expiration Date:	07/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15473	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/28/2022	Expiration Date:	07/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15474	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/28/2022	Expiration Date:	06/29/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15475	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/29/2022	Expiration Date:	07/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15476	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/29/2022	Expiration Date:	07/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15469	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15470	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15471	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/28/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15467	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	06/23/2022	Lot #:	M151-22
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15468	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	06/23/2022	Lot #:	M151-22
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M15464	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/22/2022	Expiration Date:	06/22/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15465	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/22/2022	Expiration Date:	06/22/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15466	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/22/2022	Expiration Date:	06/22/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15459	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/21/2022	Expiration Date:	07/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15460	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/21/2022	Expiration Date:	07/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15461	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/21/2022	Expiration Date:	06/22/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15462	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/22/2022	Expiration Date:	07/22/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15463	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/22/2022	Expiration Date:	07/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15456	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15457	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15458	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/21/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M15454	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/15/2022	Expiration Date:	06/16/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard ID#:	M15455	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	06/15/2022	Lot #:	3-020AJ
Expiration Date (if any):	06/30/2023	Catalog #:	XCTIWI-5-500

Standard Log #:	M15449	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/14/2022	Expiration Date:	07/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15450	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/14/2022	Expiration Date:	07/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15451	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/14/2022	Expiration Date:	06/15/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15452	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/15/2022	Expiration Date:	07/15/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15453	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/15/2022	Expiration Date:	07/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15446	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/14/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15447	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/14/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15448	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/14/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15441	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/08/2022	Expiration Date:	07/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15442	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/08/2022	Expiration Date:	07/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15443	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/08/2022	Expiration Date:	06/09/2022
Prep:	Carefully mixed **3** parts HCl AB.712 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15444	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/09/2022	Expiration Date:	07/09/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15445	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/09/2022	Expiration Date:	07/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.712 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15438	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15439	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15440	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/08/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15435	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/06/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15436	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/06/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15437	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/06/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15433	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	06/02/2022	Lot #:	A0432704
Expiration Date (if any):		Catalog #:	198530010

Standard ID#:	M15434	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/02/2022	Lot #:	58-230CR
Expiration Date (if any):	May 30, 2023	Catalog #:	XSPIKE-1-500

Standard Log #:	M15428	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/01/2022	Expiration Date:	07/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15429	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/01/2022	Expiration Date:	07/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15430	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/01/2022	Expiration Date:	06/02/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15431	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/02/2022	Expiration Date:	07/02/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15432	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/02/2022	Expiration Date:	07/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15306 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15425	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15426	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15427	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/01/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15424	Vendor:	HPS Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	05/31/2022	Lot #:	2123812-500
Expiration Date (if any):	11/30/2023	Catalog #:	HP10M67-1-500

Standard Log #:	M15419	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/23/2022	Expiration Date:	06/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15420	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/24/2022	Expiration Date:	06/24/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15421	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/23/2022	Expiration Date:	05/24/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15422	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/24/2022	Expiration Date:	06/24/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15423	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/24/2022	Expiration Date:	06/24/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15416	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15417	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/23/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15418	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/23/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15411	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	06/17/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15412	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	06/17/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15413	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	05/18/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15414	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/18/2022	Expiration Date:	06/18/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15415	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/18/2022	Expiration Date:	06/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15408	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/17/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15409	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/17/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15410	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/17/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15404	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/10/2022	Expiration Date:	06/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15405	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/10/2022	Expiration Date:	06/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15406	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/11/2022	Expiration Date:	06/11/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15407	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/11/2022	Expiration Date:	06/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15401	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15402	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15403	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/10/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15395	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1154439-14
Expiration Date (if any):	10/2023	Catalog #:	4400-10M544

Standard ID#:	M15396	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1191653-5
Expiration Date (if any):	10/2023	Catalog #:	4400-10M311

Standard ID#:	M15397	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1144484-28
Expiration Date (if any):	10/2023	Catalog #:	4400-10M11

Standard ID#:	M15398	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	05/03/2022	Lot #:	1197533-32
Expiration Date (if any):	10/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15399	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1112960-63
Expiration Date (if any):	10/2023	Catalog #:	4400-10M91

Standard ID#:	M15400	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	05/04/2022	Lot #:	276712
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard Log #:	M15390	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	06/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15391	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	06/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15392	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	05/04/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15393	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/04/2022	Expiration Date:	06/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15394	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/04/2022	Expiration Date:	06/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15387	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15388	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15389	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15385	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/02/2022	Expiration Date:	05/02/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15386	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/02/2022	Expiration Date:	05/02/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15382	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/27/2022	Expiration Date:	05/27/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15383	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/27/2022	Expiration Date:	05/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

Standard Log #:	M15384	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	04/27/2022	Expiration Date:	09/27/2022
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC310 and brought up to volume.		

Standard Log #:	M15379	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	05/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15380	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	05/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15381	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	04/27/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15376	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15377	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15378	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/26/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15374	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/21/2022	Expiration Date:	05/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15375	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/21/2022	Expiration Date:	05/21/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15372	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/20/2022	Expiration Date:	05/20/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15373	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/20/2022	Expiration Date:	05/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15307 and brought up to volume.		

Standard Log #:	M15370	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/19/2022	Expiration Date:	05/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15371	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/19/2022	Expiration Date:	05/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15367	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/19/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15368	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/19/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15369	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/19/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15366	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/18/2022	Expiration Date:	04/18/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15365	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/15/2022	Expiration Date:	08/31/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M15174 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M15362	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15363	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15364	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15357	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	05/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15358	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	05/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15359	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	04/13/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15360	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/13/2022	Expiration Date:	05/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15361	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/13/2022	Expiration Date:	05/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15354	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/12/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15355	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/12/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15356	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/12/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15352	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	04/06/2022	Expiration Date:	04/06/2023
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.711 in a hood.		

Standard ID#:	M15353	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	04/06/2022	Lot #:	1-129AJ
Expiration Date (if any):	04/30/2022	Catalog #:	XCTWI-1-500

Standard Log #:	M15347	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	05/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15348	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	05/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15349	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	04/05/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15350	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/05/2022	Expiration Date:	05/05/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15351	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/05/2022	Expiration Date:	05/05/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15344	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15345	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15346	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/04/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M15342	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	03/29/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M152027 0.5 **mL** 10000 mg/L Cu M15021 5.0 **mL** 1000 mg/L Co M15019 5.0 **mL** 1000 mg/L Mo M15170 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15343	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	03/29/2022	Expiration Date:	07/2022
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M15095 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

Standard Log #:	M15338	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15339	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/29/2022	Expiration Date:	03/29/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

		Instrument:	ICP 6500
Standard Log #:	M15340	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/29/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M15023 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15341	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/29/2022	Expiration Date:	09/2022
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 1000 mg/L Be M15091 5.0 **mL** 1000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M15333	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	04/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15334	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	04/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15335	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	03/29/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15336	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15337	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15330	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15331	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15332	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/28/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP
Standard Log #:	M15329	Standard:	Pb ICV
Analyst:	NAH	Concentrations:	500 ug/L (Pb)
Prep Date:	03/21/2022	Expiration Date:	06/23
Prep:	Into a 1 L volumetric flask, pipetted **0.5 mL** Pb (1000 mg/L) M15289 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

		Instrument:	ICP 6500
Standard Log #:	M15326	Standard:	Pb ICAL
Analyst:	NAH	Concentrations:	10,100, 1000, and 10,000, 100,000 µg/L (Pb)
Prep Date:	03/21/2022	Expiration Date:	03/2023
Prep:	Into four, 1 L volumetric flasks, pipetted the following from Pb (10000 µg/mL) M15045 and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) *10 µg/L std.* - **0.001mL** *100 µg/L std.* - **0.01mL** 1000 µg/L std - **0.10 mL** *10,000 µg/L std.* - **1.0 mL** 100,000 µg/L std -**10.0 mL**		

		Instrument:	ICP 6500
Standard Log #:	M15327	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Pb
Prep Date:	03/21/2022	Expiration Date:	03/23
Prep:	Into a 1 L volumetric flask, pipetted 0.5 **mL** 10,000 mgL M15045 Pb and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15328	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Pb,
Prep Date:	03/21/2022	Expiration Date:	03/23
Prep:	Into a 1 L volumetric flask, pipetted .05 **mL** ml 10,000 mg/L M15045 Pb and brought up to volume with milli-Q H_2O.		

Standard Log #:	M15321	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	04/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15322	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	04/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15323	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	03/23/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15324	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/23/2022	Expiration Date:	04/23/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15325	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/23/2022	Expiration Date:	04/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15318	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/22/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15319	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/22/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15320	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/22/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15316	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	03/18/2022	Lot #:	T2-MEB716384
Expiration Date (if any):		Catalog #:	CTI-SPK-1

Standard ID#:	M15317	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/Spike
Date Received:	03/18/2022	Lot #:	T2-MEB716383
Expiration Date (if any):		Catalog #:	CTI-GFCAL-1

Standard Log #:	M15311	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	04/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15312	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	04/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15313	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	03/16/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15314	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2022	Expiration Date:	04/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15315	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/16/2022	Expiration Date:	04/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15308	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15309	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15310	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/15/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15305	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate 99%
Date Received:	03/10/2022	Lot #:	A0426185
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M15306	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/10/2022	Lot #:	M012-04
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15307	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/10/2022	Lot #:	M012-04
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M15300	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	04/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15301	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	04/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15302	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	03/09/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15303	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/09/2022	Expiration Date:	04/09/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15304	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/09/2022	Expiration Date:	04/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15297	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15298	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15299	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/08/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15296	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/07/2022	Expiration Date:	03/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M15292	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15293	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15294	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15295	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/07/2022	Expiration Date:	03/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15291	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	03/04/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M15222	1000	0.01
As	2	M15223	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M15220	1000	0.1
Se	2	M15217	1000	0.1
Tl	2	M15221	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15290	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	03/04/2022	Expiration Date:	01/2023

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M15223	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M15221	10,000
Se	1	1000	M15217	10,000
Sb	1	1000	M15220	10,000
Ag	0.1	1000	M15222	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard ID#:	M15286	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	03/02/2022	Lot #:	211029
Expiration Date (if any):	04/30/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15287	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 ug/mL
Date Received:	03/02/2022	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

Standard ID#:	M15288	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 ug/mL
Date Received:	03/02/2022	Lot #:	1137797-18
Expiration Date (if any):	06/2023	Catalog #:	4400-10M411

Standard ID#:	M15289	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 1000 ug/mL
Date Received:	03/02/2022	Lot #:	1046594-72
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000281

Standard Log #:	M15281	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2022	Expiration Date:	04/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15282	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2022	Expiration Date:	03/02/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15283	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15284	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15285	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15278	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15279	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15280	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15277	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/28/2022	Lot #:	58-137CR
Expiration Date (if any):	02/28/2023	Catalog #:	XSPIKE-1-250

Standard Log #:	M15275	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/23/2022	Expiration Date:	03/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15276	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/23/2022	Expiration Date:	03/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15270	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/21/2022	Expiration Date:	03/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15271	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/21/2022	Expiration Date:	02/22/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15272	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/22/2022	Expiration Date:	03/22/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15273	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/22/2022	Expiration Date:	03/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

Standard ID#:	M15274	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/23/2022	Lot #:	1-021JA
Expiration Date (if any):	02/28/2023	Catalog #:	XCTWI-5-500

		Instrument:	HydraII
Standard Log #:	M15267	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15268	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15269	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/21/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15263	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/15/2022	Expiration Date:	03/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15264 and brought up to volume.		

Standard Log #:	M15264	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/15/2022	Expiration Date:	03/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15265	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/16/2022	Expiration Date:	03/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15266	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/16/2022	Expiration Date:	03/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15260	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15261	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15262	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/15/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15259	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	100 mg/mL Custom Standard
Date Received:	02/11/2022	Lot #:	58-054CR
Expiration Date (if any):	02/28/2023	Catalog #:	XCTWI-4-500

Standard Log #:	M15254	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	03/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15255	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	03/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15256	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	02/10/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15257	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2022	Expiration Date:	03/10/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15258	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2022	Expiration Date:	03/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15251	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15252	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15253	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15250	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 10 ICVLL
Date Received:	02/08/2022	Lot #:	.01 mls m15222 into 1000 ml vol.
Expiration Date (if any):	06/2023	Catalog #:	

MRL BASE STD M15249 Analyst NAH

Prep Date 02/08/2022

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	07/2022
Al	400	M15112	10000	2	xx
Ba	10	M14772	1000	0.5	xx
Be	4	M15091	1000	0.2	xx
Cd	5	M15098	1000	0.25	xx
Co	10	M15019	1000	0.5	xx
Cr	10	M15027	10000	0.05	xx
Cu	10	M15021	10000	0.05	xx
Mg	500	M15174	10000	2.5	xx
Mn	10	M15023	10000	0.05	xx
Mo	10	M15170	1000	0.5	xx
Ni	10	M15095	1000	0.5	xx
Pb	10	M15045	10000	0.05	xx
Sb	20	M15229	1000	1	xx
V	10	M15020	1000	0.5	xx
Zn	10	M15114	10000	0.05	xx
K	1000	M15173	10000	5	xx
Na	1000	M15172	10000	5	xx
As	20	M15223	1000	1	xx
Ca	500	M15026	10000	2.5	xx
Fe	300	M15169	10000	1.5	xx
Se	20	M15217	1000	1	xx
Tl	20	M15221	1000	1	xx
Si	100	M15171	1000	5	xx
B	20	M14966	1000	1	xx
Li	20	M14681	1000	1	xx
W	50	Mxxxxxxx	1000	2.5	xx
Ti	10	M14674	1000	0.5	xx
Sr	10	M14775	1000	0.5	xx
Sn	50	M14774	1000	2.5	xx
S	300	M15025	10000	1.5	xx

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15248	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15068 and 15 **mL** 10000 mg/L Fe M15169 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15246	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	02/0/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M15167, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15068, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14775, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) Mxxxxxxx, **0.5 mL** Si (1000 mg/L) M15219,**0.5 mL** S (10000 mg/L) M14677, **0.5 mL** K (10000 mg/L) M15116, and **0.5 mL** K (10000 mg/L) Na M15097		

		Instrument:	ICP 6500
Standard Log #:	M15247	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	02/08/2022	Expiration Date:	11/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15068, **15 mL** Fe (10,000 mg/L) M15169, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15134, **2.5 mLs Na 10,000 ug/mL** M15172, **2.5 mLs k 10,000 ug/mL** M15173 **2.5 mLs S 10,000 ug/mL** M15025, **0.5 mls Si 1000 ug/mL** M15088 and brought up to volume with milli-Q .		

		Instrument:	ICP 6500
Standard Log #:	M15244	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **100,000 ug/L** K, Na, S. **500 µg/L** Ag, Be, Cd
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn Si) M15134,M15 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) 0.5 ml M150 10 mls of 10,000 mgL M15173 K, M15172 Na, M15025 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15245	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15134 and 0.5 **mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) .05 ml M152 and .5 ml M15171 Si and 1 ml 10,000 mg/L M15173 K, M15172 Na, M15025 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15243	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	02/08/2022	Expiration Date:	11/2022

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15134, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) 1ml M15098,M and **1 mL** of Si (1000 mg/L) M15171 and 1 mL M14682 Ce and 1 ml M15108 Hg and 0.1 ml of 10,000 mg/L M15173 K and M15172 Na and M15025 S and M15166 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M15114.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15174, **10 mL** of Fe (10,000 mg/L) M15169, **10 mL** of Ca (10,000 mg/L) M15026 and **10 mL** Al (10,000 mg/L) M15112,10 mL of Na (10000) M15172, 10 mL K (10,000) M15173, 10 mL S (10,000) M15025,10 mL P (10,1000), M15166 10 mL Si (1000) M15171.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

Standard Log #:	M15242	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL Spike Soln
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15112	**10000**	4
As	40	M15223	1000	2
Ba	20	M14772	1000	1
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15172	**10000**	50
K	10000	M15173	**10000**	50
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15241	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ solid QSM
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15112	**10000**	4
As	40	M15223	1000	2
Ba	40	M14772	1000	2
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15172	**10000**	50
K	10000	M15173	**10000**	50
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15240	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15112	**10000**	0.6
As	40	M15223	1000	2
Ba	4	M14772	1000	0.2
Be	8	M15091	1000	0.4
Ca	100	M15026	**10000**	0.5
Cd	2	M15098	1000	0.1
Co	5	M15019	1000	0.25
Cr	5	M15027	**10000**	0.025
Cu	40	M15021	**10000**	0.2
Fe	80	M15169	**10000**	0.4
Mg	40	M15174	**10000**	0.2
Mn	5	M15023	**10000**	0.025
Mo	5	M15170	1000	0.25
Ni	5	M15095	1000	0.25
Pb	20	M15045	**10000**	0.1
Sb	20	M15220	1000	1.0
Se	20	M15217	1000	2
Tl	40	M15221	1000	2
V	5	M15020	1000	0.25
Zn	20	M15114	**10000**	0.1
Na	700	M15172	**10000**	3.5
K	500	M15173	**10000**	2.5
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15236	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/25/2022	Expiration Date:	02/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15237	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/25/2022	Expiration Date:	02/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15238	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/26/2022	Expiration Date:	02/26/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15239	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/26/2022	Expiration Date:	02/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15233	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/25/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15234	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/25/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15235	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/25/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15232	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod
Date Received:	01/18/2022	Lot #:	276713
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard Log #:	M15227	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	02/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15228	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	02/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15229	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	01/19/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15230	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/19/2022	Expiration Date:	02/19/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15231	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/19/2022	Expiration Date:	02/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15224	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/18/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15225	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/18/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15226	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/18/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15217	Vendor:	CPI
Analyst:	NAH	Chemical:	Se 1000 mg/L
Date Received:	01/13/2022	Lot #:	1135995-21
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000491

Standard ID#:	M15218	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	01/13/2022	Lot #:	1157358-14
Expiration Date (if any):	06/2023	Catalog #:	4400-10M671

Standard ID#:	M15219	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/13/2022	Lot #:	211029
Expiration Date (if any):	04/30/2022	Catalog #:	S4400-1000504F

Standard ID#:	M15220	Vendor:	CPI
Analyst:	NAH	Chemical:	Sb 1000 mg/L
Date Received:	1/13/2022	Lot #:	1129139-6
Expiration Date (if any):	06/2023	Catalog #:	S4400-100023

Standard ID#:	M15221	Vendor:	CPI
Analyst:	NAH	Chemical:	Tl 1000 mg/L
Date Received:	01/13/2022	Lot #:	1025512-61
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000581

Standard ID#:	M15222	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 1000 mg/L
Date Received:	01/13/2022	Lot #:	1106123-69
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000511

Standard ID#:	M15223	Vendor:	CPI
Analyst:	NAH	Chemical:	As 1000 mg/L
Date Received:	01/13/2022	Lot #:	1103713-64
Expiration Date (if any):	06/2023	Catalog #:	S4400-100031

Standard Log #:	M15213	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2022	Expiration Date:	02/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15214	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2022	Expiration Date:	02/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15215	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2022	Expiration Date:	02/12/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15216	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2022	Expiration Date:	02/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15210	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15211	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15212	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15205	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	02/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15206	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	02/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15207	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	01/05/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15208	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/05/2022	Expiration Date:	02/05/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15209	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/05/2022	Expiration Date:	02/05/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15202	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15203	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15204	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/04/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15199	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15200	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15201	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15194	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	01/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15195	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	01/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15196	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	12/29/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15197	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/29/2021	Expiration Date:	01/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15198	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/29/2021	Expiration Date:	01/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15191	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/28/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15192	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/28/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15193	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/28/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15186	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	01/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15187	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	01/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15188	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	12/21/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15189	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/21/2021	Expiration Date:	01/21/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15190	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/21/2021	Expiration Date:	01/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15183	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/20/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15184	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/20/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15185	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/20/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15180	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/15/2021	Expiration Date:	01/15/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15181	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/15/2021	Expiration Date:	01/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15182	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	12/20/2021	Expiration Date:	12/20/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15178	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/14/2021	Expiration Date:	01/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15179	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/14/2021	Expiration Date:	01/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15175	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/14/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15176	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/14/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15177	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/14/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15169	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Iron
Date Received:	12/13/2021	Lot #:	1034257-77
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M261

Standard ID#:	M15170	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Molybdenum
Date Received:	12/13/2021	Lot #:	1138256-5
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000343

Standard ID#:	M15171	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Silicon
Date Received:	12/13/2021	Lot #:	1198119-3
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15172	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Sodium
Date Received:	12/13/2021	Lot #:	1122472-6
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M521

Standard ID#:	M15173	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Potassium
Date Received:	12/13/2021	Lot #:	1137797-18
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M411

Standard ID#:	M15174	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Magnesium
Date Received:	12/13/2021	Lot #:	1075232-54
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M311

Standard ID#:	M15164	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/10/2021	Lot #:	L259-10
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15165	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/10/2021	Lot #:	L259-10
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15166	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	10,000 ug/mL Phosphorus
Date Received:	12/13/2021	Lot #:	AR18-111PY
Expiration Date (if any):	12/30/2022	Catalog #:	PLP9-3Y

Standard ID#:	M15167	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	12/13/2021	Lot #:	57-204CR
Expiration Date (if any):	12/30/2022	Catalog #:	XSPIKE-1-250

Standard ID#:	M15168	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Silicon
Date Received:	12/13/2021	Lot #:	1198119-3
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15163	Vendor:	Decon Labs
Analyst:	NAH	Chemical:	Dri-Clean lab detergent
Date Received:	12/08/2021	Lot #:	1J519
Expiration Date (if any):	----------	Catalog #:	2502

Standard Log #:	M15158	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	01/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15159	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	01/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15160	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	12/08/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15161	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/08/2021	Expiration Date:	01/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15162	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/08/2021	Expiration Date:	01/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15155	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/07/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15156	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/07/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15157	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/07/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15153	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	12/01/2021	Expiration Date:	05/01/2022
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC310 and brought up to volume.		

Standard Log #:	M15154	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	12/01/2021	Expiration Date:	12/01/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard Log #:	M15148	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15149	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15150	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/01/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15151	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/01/2021	Expiration Date:	01/01/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15152	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/01/2021	Expiration Date:	01/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15145	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/30/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15146	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/30/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15147	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/30/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15144	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	11/29/2021	Lot #:	A0431536
Expiration Date (if any):		Catalog #:	198530010

Standard ID#:	M15143	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	11/22/2021	Lot #:	2123812-500
Expiration Date (if any):	05/31/2023	Catalog #:	HP10M67-1-500

Standard Log #:	M15138	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15139	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15140	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	11/17/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15141	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15142	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15135	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15136	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15137	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/16/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15134	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/11/2021	Lot #:	1-040EL
Expiration Date (if any):	11/20/2022	Catalog #:	XCTWI-5-500

Standard Log #:	M15129	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15130	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15131	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	11/11/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15132	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15133	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15126	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15127	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15128	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/10/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15124	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/04/2021	Expiration Date:	12/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15125	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/05/2021	Expiration Date:	12/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15121	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15122	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15123	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	11/04/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard ID#:	M15117	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	11/03/2021	Lot #:	CL12-145HGY
Expiration Date (if any):	10/30/2022	Catalog #:	CLHG4-2Y

		Instrument:	HydraII
Standard Log #:	M15118	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15119	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15120	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/03/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15112	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1144484-5
Expiration Date (if any):	04/2023	Catalog #:	4400-10M11

Standard ID#:	M15113	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	KD37797-20
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411-500

Standard ID#:	M15114	Vendor:	CPI
Analyst:	NAH	Chemical:	ZN 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1149838-4
Expiration Date (if any):	04/2023	Catalog #:	S4400-10M681

Standard ID#:	M15115	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1157358-4
Expiration Date (if any):	04/2023	Catalog #:	4400-10M671

Standard ID#:	M15116	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1137797-18
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411

		Instrument:	GFAA
Standard Log #:	M15109	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15110	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15111	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15108	Vendor:	CPI International
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	10/21/2021	Lot #:	1084154-49
Expiration Date (if any):	01/22/2023	Catalog #:	S4400-1000331

Standard Log #:	M15103	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15104	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15105	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	10/20/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15106	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15107	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15100	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15101	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15102	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15099	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	10/15/2021	Expiration Date:	02/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M15094	Vendor:	CPI
Analyst:	NAH	Chemical:	MG 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1075232-5
Expiration Date (if any):	09/2022	Catalog #:	4400-10M311

Standard ID#:	M15095	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	10/14/2021	Lot #:	1049780-73
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000361

Standard ID#:	M15096	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	10/14/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15097	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1055526-35
Expiration Date (if any):	11/2022	Catalog #:	4400-10M521

Standard ID#:	M15098	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	10/14/2021	Lot #:	1080470-23
Expiration Date (if any):	01/2023	Catalog #:	S4400-100081

Standard ID#:	M15090	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1079898-11
Expiration Date (if any):	01/2023	Catalog #:	S4400-10M391

Standard ID#:	M15091	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	10/14/2021	Lot #:	1072683-57
Expiration Date (if any):	01/2023	Catalog #:	S4400-100051

Standard ID#:	M15092	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1072921-23
Expiration Date (if any):	01/2023	Catalog #:	4400-10M91

Standard ID#:	M15093	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1034257-71
Expiration Date (if any):	03/2023	Catalog #:	4400-10M261

Standard Log #:	M15086	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15087	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14949 and brought up to volume.		

Standard ID#:	M15088	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/L
Date Received:	10/13/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15089	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/13/2021	Lot #:	57-130CR
Expiration Date (if any):	10/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M15083	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15084	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15085	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	10/13/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15080	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15081	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15082	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/12/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15079	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	10/11/2021	Expiration Date:	02/2022

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

Standard Log #:	M15074	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15075	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15076	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	10/06/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15077	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15078	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15071	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15072	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15073	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/05/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15067	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/04/2021	Expiration Date:	08/20/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M14739 and brought up to volume.		

Standard ID#:	M15068	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Interference A
Date Received:	10/4/2021	Lot #:	18-102WLX
Expiration Date (if any):	09/22	Catalog #:	INT-A1

Standard ID#:	M15069	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/04/2021	Lot #:	1-181-PC
Expiration Date (if any):	09/30/2022	Catalog #:	XCTWI-1-500

MRL BASE STD M15066 Analyst NAH

Prep Date 10/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M15098	10000	2	02/23
Ba	10	M14772	1000	0.5	09/22
Be	4	M15203	1000	0.2	09/22
Cd	5	M14201	1000	0.25	09/22
Co	10	M15019	1000	0.5	02/23
Cr	10	M15027	10000	0.05	02/23
Cu	10	M15021	10000	0.05	02/23
Mg	500	M14739	10000	2.5	08/22
Mn	10	M15023	10000	0.05	02/23
Mo	10	M15022	1000	0.5	02/23
Ni	10	M14196	1000	0.5	xx
Pb	10	M15045	10000	0.05	03/23
Sb	20	M14622	1000	1	02/22
V	10	M15020	1000	0.5	02/23
Zn	10	M14197	10000	0.05	xx
K	1000	M14887	10000	5	11/22
Na	1000	M14969	10000	5	01/23
As	20	M14621	1000	1	02/22
Ca	500	M15026	10000	2.5	02/23
Fe	300	M15024	10000	1.5	02/23
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14968	1000	5	01/23
B	20	M14966	1000	1	01/23
Li	20	M14681	1000	1	07/22
W	50	xxxxx	1000	2.5	xxxxx
Ti	10	M14674	1000	0.5	07/22
Sr	10	M14683	1000	0.5	07/22
Sn	50	M14774	1000	2.5	09/22
S	300	M14773	10000	1.5	09/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15064	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M15204, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15065	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833 and **15 mL** Fe (10000 mg/L) M15024 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15061	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15062	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15063	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14988, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774 and **0.5 mL** Ti (1000 mg/L) M14674.		

		Instrument:	ICP 6500
Standard Log #:	M15060	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	10/14/2021	Expiration Date:	01/30/2022

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15828, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14968 and 1 mL M14682 Ce
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M15046.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14969.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M14739, **10 mL** of Fe (10,000 mg/L) M15024, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14737.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

Standard Log #:	M15059	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/29/2021	Expiration Date:	10/29/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard ID#:	M15057	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15058	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15056	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	09/22/2021	Lot #:	A0428169
Expiration Date (if any):		Catalog #:	198531000

Standard Log #:	M15051	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15052	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15053	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	09/21/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15054	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15055	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15048	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15049	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15050	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15047	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/09/2021	Expiration Date:	09/09/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard ID#:	M15045	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10,000 mg/L
Date Received:	09/15/2021	Lot #:	1035677-18
Expiration Date (if any):	03/2023	Catalog #:	4400-10M281

Standard ID#:	M15046	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,1000 mg/L
Date Received:	09/15/2021	Lot #:	1137797-13
Expiration Date (if any):	03/2023	Catalog #:	4400-10M411-500

Standard Log #:	M15040	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15041	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15042	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	09/15/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15043	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15044	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15037	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15038	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15039	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15032	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15033	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15034	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	09/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15035	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15036	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14940 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15029	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15030	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15031	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/01/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15023	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10,000 mg/L
Date Received:	08/30/2021	Lot #:	985851-80
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M321

Standard ID#:	M15024	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1034257-71
Expiration Date (if any):	02/2023	Catalog #:	4400-10M261

Standard ID#:	M15025	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1050965-59
Expiration Date (if any):	02/2023	Catalog #:	4400-10M544

Standard ID#:	M15026	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1072921-23
Expiration Date (if any):	02/2023	Catalog #:	4400-10M91

Standard ID#:	M15027	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1076194-26
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M121

Standard ID#:	M15028	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	NAH	Lot #:	17-023AB
Expiration Date (if any):	AUG 30,2022	Catalog #:	XCTWI-5-500

Standard ID#:	M15018	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1077245-48
Expiration Date (if any):	02/2023	Catalog #:	4400-10M11

Standard ID#:	M15019	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	08/30/2021	Lot #:	1107088-1
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000131

Standard ID#:	M15020	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	08/30/2021	Lot #:	1055682-88
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000651

Standard ID#:	M15021	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1063159-57
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M141

Standard ID#:	M15022	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	08/30/2021	Lot #:	1075718-15
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000343

Standard Log #:	M15013	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15014	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15015	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	08/25/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15016	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15017	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15010	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15011	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15012	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/24/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15009	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	08/23/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

Standard ID#:	M15008	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Palladium Matrix Modifier
Date Received:	08/19/2021	Lot #:	2113302-100
Expiration Date (if any):	08/31/2022	Catalog #:	HP1900-100

Standard Log #:	M15003	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15004	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15005	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	08/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15006	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15007	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15000	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15001	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15002	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/18/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14997	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14998	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14999	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14992	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14993	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14994	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	08/11/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14995	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14996	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14989	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14990	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14991	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/10/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14987	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-190MF
Expiration Date (if any):	08/30/2022	Catalog #:	XCTWI-1-500

Standard ID#:	M14988	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-189MF
Expiration Date (if any):	08/30/2021	Catalog #:	XSPIKE-1-250

Standard Log #:	M14982	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14983	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14984	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	08/04/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14985	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14986	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14979	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14980	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14981	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/03/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14978	Vendor:	Enviromental Express
Analyst:	BMM	Chemical:	Acid Washed TCLP Filters
Date Received:	05/20/2021	Lot #:	400175-1116-T
Expiration Date (if any):		Catalog #:	FG77150MM

Standard Log #:	M14973	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14974	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14975	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	07/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14976	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14977	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14970	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14971	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14972	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/27/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14966	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 10,000 mg/L
Date Received:	07/27/2021	Lot #:	1101946-16
Expiration Date (if any):	01/2023	Catalog #:	S4400-100074

Standard ID#:	M14967	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 mk/L
Date Received:	07/27/2021	Lot #:	1109477-26
Expiration Date (if any):	01/2023	Catalog #:	4400-10M671

Standard ID#:	M14968	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	07/27/2021	Lot #:	1047570-64
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000504F

Standard ID#:	M14969	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000
Date Received:	07/27/2021	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

		Instrument:	CETAC
Standard Log #:	M14963	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

Standard Log #:	M14964	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/22/2021	Expiration Date:	07/22/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard Log #:	M14965	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	07/23/2021	Expiration Date:	07/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.704 and brought up to volume.		

Standard Log #:	M14959	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14960	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14961	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	07/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14962	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14956	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14957	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14958	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14955	Vendor:	GFS Chemicals
Analyst:	NAH	Chemical:	AMCO Clear 2.0 NTU
Date Received:	07/16/2021	Lot #:	21150075
Expiration Date (if any):	07/22/2022	Catalog #:	8008

Standard Log #:	M14950	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14951	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14952	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	07/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14953	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14954	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14947	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14948	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14949	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14944	Standard:	ICV Std.
Analyst:	nah	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	07/09/2021	Expiration Date:	08/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14874, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M14888, **0.5 mL** B (1000 mg/L) M14675, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) XXXXXXX, **0.5 mL** Si (1000 mg/L) M14680, **0.5 mL** S (10000 mg/L) M14570, **0.5 mL** K (10000 mg/L) M14887, and **0.5 mL** Na (10000 mg/L) M14736		

Standard Log #:	M14945	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/12/2021	Expiration Date:	07/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14946	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	07/14/2021	Expiration Date:	12/14/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC272 and brought up to volume.		

Standard ID#:	M14939	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14940	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14941	Vendor:	GFS
Analyst:	NAH	Chemical:	AMCO Clear 0.1 ntu
Date Received:	07/12/2021	Lot #:	Returned to manufacturer
Expiration Date (if any):	not used	Catalog #:	not used

		Instrument:	ICP 6500
Standard Log #:	M14942	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	07/09/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14833 and 15 **mL** 10000 mg/L Fe M14676 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14943	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	07/09/2021	Expiration Date:	12/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M14676, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788, **2.5 mLs Na 10,000 ug/mL** M14736 **,2.5 mLs k 10,000 ug/mL** M14370 **2.5 mLs S 10,000 ug/mL** M14677 **, 0.5 mls Si 1000 ug/mL** M14735 and brought up to volume with milli-Q .		

Standard Log #:	M14938	Reagent:	TCLP EXTRACTION FLUID #2
Analyst:	BMM	pH:	2.88 ± 0.05
Prep Date:	07/08/2021	Expiration Date:	07/08/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703. Dilute to 20 L and mix.		

Standard Log #:	M14933	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14934	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14935	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	07/08/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14936	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14937	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14930	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14931	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14932	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/07/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14925	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14926	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14927	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	07/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14928	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14929	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14922	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14923	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14924	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/30/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14921	Vendor:	LabChem
Analyst:	NAH	Chemical:	Turbidity Standard(Formazin) 4000NT
Date Received:	06/25/2021	Lot #:	L147-07
Expiration Date (if any):	06/08/2022	Catalog #:	LC26290

		Instrument:	ICP 6500
Standard Log #:	M14919	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M14205 0.5 **mL** 10000 mg/L Cu M14199 5.0 **mL** 1000 mg/L Co M14204 5.0 **mL** 1000 mg/L Mo M14888 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14920	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M14196 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M14916	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M14917	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M14200 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14918	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 10000 mg/L Be M14203 5.0 **mL** 10000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M14912	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14913	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14914	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	06/23/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14915	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14909	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14910	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14911	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/22/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14904	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14905	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14906	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	06/17/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14907	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14908	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

Standard Log #:	M14903	Instrument:	ICP 6500
Analyst:	NAH	Standard:	Dissolved MDL Verificaion
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	2.7	M14623	1000	0.135
Al	10	M14736	**10000**	.05
As	20	M14621	1000	1
Ba	2	M14772	1000	0.1
Be	1	M14203	1000	0.05
Ca	50	M14740	**10000**	0.25
Cd	0.5	M14201	1000	.025
Co	2.5	M14204	1000	0.125
Cr	5	M14205	**10000**	.025
Cu	10	M14199	**10000**	.05
Fe	40	M14738	**10000**	0.2
Mg	25	M14676	**10000**	0.125
Mn	3	M14200	**10000**	.015
Mo	2.5	M14888	1000	0.125
Ni	3	M14196	1000	0.15
Pb	20	M14202	**10000**	0.1
Sb	10	M14622	1000	0.5
Se	20	M14624	1000	1
Tl	20	M14626	1000	1
V	3	M14198	1000	0.15
Zn	5	M14197	**10000**	0.025
Na	150	M14736	**10000**	0.75
K	150	M14741	**10000**	0.75
B	20	M14675	1000	1
Si	200	M14735	1000	10
Li	10	M14681	1000	0.5
Sr	20	M14775	1000	1
Sn	20	M14774	1000	1
Ti	5	M14674	1000	0.25
S	200	M14773	**10000**	10

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14902	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL spike Soln.
Prep Date:	06/16/2021	Expiration Date:	09//2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	20	M14772	1000	1
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14901	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ Solid QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	40	M14772	1000	2
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14900	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M14623	1000	0.25
Al	120	M14737	**10000**	0.6
As	40	M14621	1000	2
Ba	4	M14772	1000	0.2
Be	8	M14203	1000	0.4
Ca	100	M14740	**10000**	0.5
Cd	2	M14201	1000	0.1
Co	5	M14204	1000	0.25
Cr	5	M14205	**10000**	0.025
Cu	40	M14199	**10000**	0.2
Fe	80	M14738	**10000**	0.4
Mg	40	M14676	**10000**	0.2
Mn	5	M14200	**10000**	0.025
Mo	5	M14888	1000	0.25
Ni	5	M14196	1000	0.25
Pb	20	M14202	**10000**	0.1
Sb	20	M14622	1000	1.0
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	5	M14198	1000	0.25
Zn	20	M14197	**10000**	0.1
Na	700	M14736	**10000**	3.5
K	500	M14741	**10000**	2.5
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M14897	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14898	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14899	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14892	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14893	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14894	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	06/09/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14895	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14896	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14889	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14890	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14891	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/08/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14886	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	06/04/2021	Lot #:	Y20F051
Expiration Date (if any):		Catalog #:	88944

Standard ID#:	M14887	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	06/04/2021	Lot #:	1053109-69
Expiration Date (if any):	11/2022	Catalog #:	4400-10M411500

Standard ID#:	M14888	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06/04/2021	Lot #:	1075718-15
Expiration Date (if any):	11/2022	Catalog #:	S4400-1000343

Standard Log #:	M14885	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14883	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14884	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14878	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14879	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14880	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	06/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14881	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14882	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14875	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14876	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14877	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14874	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/24/2021	Lot #:	16-115AB
Expiration Date (if any):	05/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14869	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14870	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14871	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	05/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14872	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14873	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14866	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14867	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14868	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/18/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14865	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	05/12/2021	Expiration Date:	09/30/2021
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M14508 and **10 mL** Mg (10,000 mg/L) M14676 and brought up to volume.		

Standard Log #:	M14860	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14861	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14862	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	05/12/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14863	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14864	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14857	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14858	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14859	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14854	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14855	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14856	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14850	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14851	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14852	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	05/05/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14853	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14847	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/04/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14848	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/04/2021	Expiration Date:	05/02/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14849	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/04/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14846	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	ACID WASHED TCLP FILTERS
Date Received:	04/29/2021	Lot #:	400175-1081-AG
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

		Instrument:	CETAC
Standard Log #:	M14842	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14843	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/19/2021	Expiration Date:	04/19/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard ID#:	M14844	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14845	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M14838	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14839	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14840	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	04/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14841	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14835	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14836	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14837	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14832	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard ID#:	M14833	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	04/21/2021	Lot #:	18-102WLX
Expiration Date (if any):	04/30/2022	Catalog #:	INT-A1

Standard ID#:	M14834	Vendor:	Custom Assurance Std
Analyst:	NAH	Chemical:	Ca 20000 Mg,Na 10000: THardness
Date Received:	04/21/2021	Lot #:	16-022AB
Expiration Date (if any):	04/30/2022	Catalog #:	XCTIWI-1-500

Standard Log #:	M14828	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14829	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14830	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	04/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14831	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14825	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14826	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14827	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/20/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14824	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14821	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14395, **15 mL** Fe (10,000 mg/L) M14738, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788, **2.5 mLs Na 10,000 ug/mL** M14736 ,**2.5 mLs k 10,000 ug/mL** 14625 **2.5 mLs S 10,000 ug/mL** M14570, **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14822	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14395 and 15 **mL** 10000 mg/L Fe M14738 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14823	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

MRL BASE STD M14820 Analyst NAH

Prep Date 04/15/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	XX
Al	400	M14737	10000	2	XX
Ba	10	M14772	1000	0.5	XX
Be	4	M14203	1000	0.2	09/21
Cd	5	M14740	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14676	10000	2.5	XX
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14684	1000	0.5	XX
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	XX
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14741	10000	5	XX
Na	1000	M14736	10000	5	XX
As	20	M14621	1000	1	XX
Ca	500	M14740	10000	2.5	XX
Fe	300	M14738	10000	1.5	XX
Se	20	M14624	1000	1	XX
Tl	20	M14674	1000	1	XX
Si	100	M14735	1000	5	XX
B	20	M14675	1000	1	09/21
Li	20	M14681	1000	1	XX
W	50	MXXX	1000	2.5	XXXXX
Ti	10	M14674	1000	0.5	XX
Sr	10	M14775	1000	0.5	XX
Sn	50	M14774	1000	2.5	XX
S	300	M14773	10000	1.5	XX

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M14815	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14816	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14817	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	04/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14818	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14819	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14812	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14813	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14814	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/14/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14811	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	04/13/2021	Expiration Date:	09/2021

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14477.
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14736.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M14676, **10 mL** of Fe (10,000 mg/L) M14676, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14478.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

		Instrument:	GFAA
Standard Log #:	M14808	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14809	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14810	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14803	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14804	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14805	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	04/07/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14806	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14807	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14800	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14801	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14802	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/06/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14799	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	04/06/2021	Lot #:	A0417285
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M14797	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	04/05/2021	Lot #:	S2-MEB703691
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-SPK-1

Standard ID#:	M14798	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	04/05/2021	Lot #:	S2-MEB703690
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-GFCAL-1

Standard Log #:	M14792	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	04/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14793	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	03/31/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14794	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

Standard Log #:	M14795	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14796	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14789	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14790	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14791	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/30/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14787	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Phosphorus 10,000 mg/L
Date Received:	03/29/2021	Lot #:	AR18-111PY
Expiration Date (if any):	3/29/2022	Catalog #:	PLP9-3Y

Standard ID#:	M14788	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/29/2021	Lot #:	4-070MF
Expiration Date (if any):	03/29/2021	Catalog #:	XCTWI-5-500

Standard Log #:	M14786	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/25/2021	Expiration Date:	03/25/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14785	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	03/24/2021	Expiration Date:	08/24/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC208 and brought up to volume.		

Standard Log #:	M14780	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14781	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14782	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	03/24/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14783	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14784	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14777	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14778	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14779	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/23/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14772	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/mL
Date Received:	03/22/2021	Lot #:	994634-134
Expiration Date (if any):	09/2022	Catalog #:	S4400-100041

Standard ID#:	M14773	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/mL
Date Received:	03/22/2021	Lot #:	1050965-34
Expiration Date (if any):	09/2022	Catalog #:	4400-10M544

Standard ID#:	M14774	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1066479-21
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000613

Standard ID#:	M14775	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1096004-1
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000531

Standard ID#:	M14776	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/23/2021	Lot #:	56-049CR
Expiration Date (if any):	03/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14767	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14768	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	03/17/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14769	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14770	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14771	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14764	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14765	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14766	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14763	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	TCLP Acid Washed Filters
Date Received:	01/05/21	Lot #:	400182-0364-T
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

Standard Log #:	M14758	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	04/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14759	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	03/10/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14760	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14761	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14762	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14755	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14756	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14757	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14754	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	03/04/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

		Instrument:	GFAA
Standard Log #:	M14751	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14752	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14753	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14748	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14749	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14750	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/02/2021	Expiration Date:	03/02/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14745	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14746	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14747	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	03/02/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14742	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14743	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14744	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14740	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Calcium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1072921-23
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M91

Standard ID#:	M14741	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Potassium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1053109-37
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M411

Standard ID#:	M14735	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Silicon 1000 µg/mL
Date Received:	02/25/2021	Lot #:	1047570-64
Expiration Date (if any):	08/20/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14736	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Sodium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1055526-35
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M521

Standard ID#:	M14737	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Aluminum 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1077245-17
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M11

Standard ID#:	M14738	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Iron 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1034257-40
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M261

Standard ID#:	M14739	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Magnesium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1075232-5
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M311

Standard Log #:	M14731	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14732	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14733	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14734	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14728	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14729	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14730	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14725	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14726	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14727	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14720	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14721	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14722	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14723	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard ID#:	M14724	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Potassium Permanganate
Date Received:	02/08/2021	Lot #:	201466
Expiration Date (if any):	Suggested Retest 04/202	Catalog #:	P279

		Instrument:	HydraII
Standard Log #:	M14717	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14718	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14719	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14713	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14714	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14715 (1) & (2)	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	02/3/2021	Lot #:	2023715-500
Expiration Date (if any):	08/31/2022	Catalog #:	10M67-1-500

Standard ID#:	M14716	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Phosphorus 10000 mg/L
Date Received:	02/08/2021	Lot #:	AR18-111PY
Expiration Date (if any):	02/28/2022	Catalog #:	PLP9--3Y

Standard Log #:	M14708	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14709	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14710	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	02/03/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14711	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14712	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14705	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14706	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14707	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/02/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14702	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/27/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14703	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14704	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14699	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14700	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14701	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/28/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14696	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14697	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14698	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14694	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) N/A **3.2 mL** of As (1000 mg/L) M14621 **3.2 mL** of Se (1000 mg/L) M14624 **0.08 mL** of Pb (10,000 mg/L) M14202 **1.0 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M14695	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M14622 **1.0 mL** of As (1000 mg/L) M14621 **2.0 mL** of Se (1000 mg/L) M14624 **0.045 mL** of Pb (10,000 mg/L) M14202 **0.4 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M14689	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14690	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14691	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	01/20/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14692	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14693	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14686	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14687	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14688	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14680	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/15/2021	Lot #:	1047870-29
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000504F

Standard ID#:	M14681	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	01/15/2021	Lot #:	104768-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000291

Standard ID#:	M14682	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	01/15/2021	Lot #:	S4400-1000101
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000101

Standard ID#:	M14683	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	01/15/2021	Lot #:	1096004-1
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000531

Standard ID#:	M14684	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	01/15/2021	Lot #:	1075718-2
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000343

Standard ID#:	M14685	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance standard
Date Received:	01/18/2021	Lot #:	XCTWI-4-500
Expiration Date (if any):	01/30/2022	Catalog #:	14-242AB

Standard ID#:	M14674	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	01/15/2021	Lot #:	1038255-27
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000623

Standard ID#:	M14675	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	01/15/2021	Lot #:	1024903-65
Expiration Date (if any):	07/2022	Catalog #:	S4400-100074

Standard ID#:	M14676	Vendor:	CPI
Analyst:	NAH	Chemical:	M 10000 mg/L
Date Received:	01/15/2021	Lot #:	1013353
Expiration Date (if any):	07/2022	Catalog #:	4400-10M311

Standard ID#:	M14677	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	01/15/2021	Lot #:	1050965-25
Expiration Date (if any):	07/2022	Catalog #:	4400-10M544

Standard ID#:	M14678	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 mg/L
Date Received:	01/15/2021	Lot #:	1079898-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-10M391

Standard ID#:	M14679	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	01/15/2021	Lot #:	1034527-40
Expiration Date (if any):	07/2022	Catalog #:	4400-10M261

Standard Log #:	M14673	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	01/13/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M14202	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14670	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14671	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14597 and brought up to volume.		

Standard Log #:	M14672	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/12/2021	Expiration Date:	01/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14667	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14668	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14669	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	01/12/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14664	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14665	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14666	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14663	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	01/06/2021	Expiration Date:	09/2021

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M14202	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

		Instrument:	GFAA
Standard Log #:	M14660	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14661	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14662	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

MRL BASE STD	M14659	Analyst	NAH
		Prep Date	01/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M14478	10000	2	02/22
Ba	10	M14568	1000	0.5	05/22
Be	4	M14203	1000	0.2	09/21
Cd	5	M14201	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14472	10000	2.5	02/22
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14569	1000	0.5	05/22
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	02/22
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14436	10000	5	02/22
Na	1000	M14559	10000	5	02/22
As	20	M14621	1000	1	02/22
Ca	500	M14476	10000	2.5	02/22
Fe	300	M14470	10000	1.5	02/22
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14435	1000	5	02/22
B	20	M14131	1000	1	07/21
Li	20	M14127	1000	1	07/21
W	50	xxxxxxxx	1000	2.5	xxxxxx
Ti	10	M14009	1000	0.5	04/21
Sr	10	M14007	1000	0.5	04/21
Sn	50	M14008	1000	2.5	04/21
S	300	M14570	10000	1.5	05/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M14658	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	1/04/2021	Expiration Date:	03/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **15 mL** Fe (10,000 mg/L) M14470, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14628, **2.5 mLs Na 10,000 ug/mL** M14473 ,**2.5 mLs k 10,000 ug/mL** M14436 **2.5 mLs S 10,000 ug/mL** M14570, **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14656	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14639, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **0.5 mL** Mo (1000 mg/L) M14569, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M14008, **0.5 mL** Ti (1000 mg/L) M14009, **0.5 mL** W (1000 mg/L) xxxxxxx, **0.5 mL** Si (1000 mg/L) M14567, **0.5 mL** S (10000 mg/L) M14372, **0.5 mL** K (10000 mg/L) M14436, and **0.5 mL** Na (10000 mg/L) M14559		

		Instrument:	ICP 6500
Standard Log #:	M14657	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14359 and 15 **mL** 10000 mg/L Fe M14470 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M1359 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14655	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	01/04/2021	Expiration Date:	03/30/2021

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14628, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195 and **1 mL** of Si (1000 mg/L) M14435 and 1 mL M13859 Ce
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14559.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M14472, **10 mL** of Fe (10,000 mg/L) M14470, **10 mL** of Ca (10,000 mg/L) M14476 and **10 mL** Al (10,000 mg/L) M14478.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

INORGANIC
CLP FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346825
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:24
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346825
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 23:52
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.32	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	41		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346822
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/13/2023 09:10
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	99		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346822
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 17:50
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346822
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 22:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.0		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.7		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346821
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 17:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346821
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 22:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.32	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	57	M	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347758
Analytical Method:	EPA 9060A	Date Received:	07/14/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 12:17
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347758
Analytical Method:	EPA 9056A	Date Received:	07/14/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273661	Analysis Date/Time:	07/14/2023 20:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.7		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.6		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	50		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348146
Analytical Method:	EPA 9056A	Date Received:	07/15/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273708	Analysis Date/Time:	07/17/2023 10:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.76	H	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	7.3	Y,M	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348146
Analytical Method:	EPA 9060A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 13:14
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348147
Analytical Method:	EPA 9056A	Date Received:	07/15/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273708	Analysis Date/Time:	07/17/2023 10:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.2	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	7.0	H	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348147
Analytical Method:	EPA 9060A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 14:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347302
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 13:33
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	10		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.6		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347302
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:35
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.76	J	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347302
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/17/2023 20:39
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120	M	4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 410.4	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273727	Analysis Date/Time:	07/19/2023 11:20
Analytical Prep Batch #:	130553	Prep. Date/Time:	07/18/2023 08:45

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	45	J	18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 9040C	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273725	Analysis Date/Time:	07/17/2023 16:00
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.89		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347303
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 13:56
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.6		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.34	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	0.86	J	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347303
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 19:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.2	J	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347305
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 14:42
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	U	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	1.5	U	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347305
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 19:38
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348148
Analytical Method:	EPA 9056A	Date Received:	07/15/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273708	Analysis Date/Time:	07/17/2023 11:07
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	J		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.35	J	H	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	13			0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348148
Analytical Method:	EPA 9060A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 14:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346823
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346823
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 23:07
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.37	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	67		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347304
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 14:19
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.6		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.34	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	0.86	J	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347304
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 19:27
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.2	J	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346824
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:13
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346824
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 23:29
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.40		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	63		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347759
Analytical Method:	EPA 9060A	Date Received:	07/14/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 12:28
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347759
Analytical Method:	EPA 9056A	Date Received:	07/14/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273661	Analysis Date/Time:	07/14/2023 21:07
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.8		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	69	M	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348803

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	6/7/23	19:13	15.00	13.80	92	90	110
Nitrate Nitrogen	6/7/23	19:13	3.50	3.266	93	90	110
Sulfate	6/7/23	19:13	25.00	23.03	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349168

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	6/7/23	19:13	15.00	13.80	92	90	110
Nitrate Nitrogen	6/7/23	19:13	3.50	3.266	93	90	110
Sulfate	6/7/23	19:13	25.00	23.03	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273708

Lab Sample ID: 1349174

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	6/7/23	19:13	15.00	13.80	92	90	110
Nitrate Nitrogen	6/7/23	19:13	3.50	3.266	93	90	110
Sulfate	6/7/23	19:13	25.00	23.03	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727

Lab Sample ID: 1349920

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	7/19/23 11:20	400.0	417.6	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1349153

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	12/29/22 13:28	50.0	50.40	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734

Lab Sample ID: 1349706

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	12/29/22 13:28	50.0	50.40	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348481

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/12/23	21:12	15.00	14.84	99	90	110
Nitrate Nitrogen	7/12/23	21:12	3.500	3.669	105	90	110
Sulfate	7/12/23	21:12	25.00	24.75	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348485

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/13/23	02:09	15.00	14.84	99	90	110
Nitrate Nitrogen	7/13/23	02:09	3.500	3.671	105	90	110
Sulfate	7/13/23	02:09	25.00	24.77	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348489

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/13/23	05:12	15.00	14.85	99	90	110
Nitrate Nitrogen	7/13/23	05:12	3.500	3.674	105	90	110
Sulfate	7/13/23	05:12	25.00	24.79	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583 Lab Sample ID: 1348491

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Sulfate	7/13/23 07:15	25.00	24.68	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348493

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Sulfate	7/13/23 11:04	25.00	24.94	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619 Lab Sample ID: 1348508

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/13/23	12:25	15.00	14.81	99	90	110
Nitrate Nitrogen	7/13/23	12:25	3.500	3.645	104	90	110
Sulfate	7/13/23	12:25	25.00	24.65	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619

Lab Sample ID: 1348514

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/13/23	17:22	15.00	15.17	101	90	110
Nitrate Nitrogen	7/13/23	17:22	3.500	3.679	105	90	110
Sulfate	7/13/23	17:22	25.00	24.53	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619 Lab Sample ID: 1348516

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Sulfate	7/17/23 19:07	25.00	24.43	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619

Lab Sample ID: 1348518

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Sulfate	7/17/23 22:10	25.00	24.48	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661 Lab Sample ID: 1349066

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/14/23	11:58	15.00	15.25	102	90	110
Nitrate Nitrogen	7/14/23	11:58	3.500	3.668	105	90	110
Sulfate	7/14/23	11:58	25.00	24.55	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349069

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/14/23	16:55	15.00	15.24	102	90	110
Nitrate Nitrogen	7/14/23	16:55	3.500	3.677	105	90	110
Sulfate	7/14/23	16:55	25.00	24.60	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349071

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/14/23	21:30	15.00	15.33	102	90	110
Nitrate Nitrogen	7/14/23	21:30	3.500	3.680	105	90	110
Sulfate	7/14/23	21:30	25.00	24.69	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349076

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/15/23	02:04	15.00	15.29	102	90	110
Nitrate Nitrogen	7/15/23	02:04	3.500	3.669	105	90	110
Sulfate	7/15/23	02:04	25.00	24.63	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349078

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Sulfate	7/17/23 09:35	25.00	24.45	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349080

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Sulfate	7/17/23 14:10	25.00	24.49	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273708

Lab Sample ID: 1349081

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/17/23	09:35	15.00	15.43	103	90	110
Nitrate Nitrogen	7/17/23	09:35	3.500	3.669	105	90	110
Sulfate	7/17/23	09:35	25.00	24.45	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273708

Lab Sample ID: 1349086

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	7/17/23	14:10	15.00	15.44	103	90	110
Nitrate Nitrogen	7/17/23	14:10	3.500	3.673	105	90	110
Sulfate	7/17/23	14:10	25.00	24.49	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727

Lab Sample ID: 1349922

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	7/19/23 11:20	400.0	400.2	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727

Lab Sample ID: 1349925

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	7/19/23 11:20	400.0	402.7	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348115

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/14/23 13:51	50.0	52.95	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348120

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/14/23 16:12	50.0	52.77	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348126

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/14/23	18:46	50.0	52.24	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348128

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/14/23	19:54	50.0	52.84	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734

Lab Sample ID: 1349554

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/18/23 10:04	50.0	50.99	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734 Lab Sample ID: 1349557

ICAL Calibration #: ICAL0637 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/18/23	12:42	50.0	50.81	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734

Lab Sample ID: 1349562

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	7/18/23 15:11	50.0	50.47	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1349154

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	12/29/2022 13:42	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734

Lab Sample ID: 1349707

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	12/29/2022 13:42	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727

Lab Sample ID: 1349921

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	07/19/2023 11:20	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348804

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	06/07/2023 19:58	0.3854	U	1.0	1.5
Nitrate Nitrogen	06/07/2023 19:58	0	U	0.12	0.20
Sulfate	06/07/2023 19:58	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349167

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	06/07/2023 19:58	0.3854	U	1.0	1.5
Nitrate Nitrogen	06/07/2023 19:58	0	U	0.12	0.20
Sulfate	06/07/2023 19:58	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273708

Lab Sample ID: 1349173

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	06/07/2023 19:58	0.3854	U	1.0	1.5
Nitrate Nitrogen	06/07/2023 19:58	0	U	0.12	0.20
Sulfate	06/07/2023 19:58	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348116

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/14/2023 14:05	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348127

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/14/2023 19:00	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651

Lab Sample ID: 1348129

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/14/2023 20:07	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348486

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/13/2023 02:32	0.5322	U	1.0	1.5
Nitrate Nitrogen	07/13/2023 02:32	0	U	0.12	0.20
Sulfate	07/13/2023 02:32	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348490

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/13/2023 05:35	0.5299	U	1.0	1.5
Nitrate Nitrogen	07/13/2023 05:35	0	U	0.12	0.20
Sulfate	07/13/2023 05:35	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348492

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Sulfate	07/13/2023 07:38	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583

Lab Sample ID: 1348494

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Sulfate	07/13/2023 11:27	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619

Lab Sample ID: 1348515

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/13/2023 17:45	0.5043	U	1.0	1.5
Nitrate Nitrogen	07/13/2023 17:45	0	U	0.12	0.20
Sulfate	07/13/2023 17:45	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619

Lab Sample ID: 1348517

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Sulfate	07/17/2023 19:30	0.5967	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619

Lab Sample ID: 1348528

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Sulfate	07/17/2023 22:33	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349070

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/14/2023 17:18	0.3860	U	1.0	1.5
Nitrate Nitrogen	07/14/2023 17:18	0	U	0.12	0.20
Sulfate	07/14/2023 17:18	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349072

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/14/2023 21:52	0.3843	U	1.0	1.5
Nitrate Nitrogen	07/14/2023 21:52	0.05090	U	0.12	0.20
Sulfate	07/14/2023 21:52	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349077

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/15/2023 02:27	0.3804	U	1.0	1.5
Nitrate Nitrogen	07/15/2023 02:27	0	U	0.12	0.20
Sulfate	07/15/2023 02:27	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349079

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Sulfate	07/17/2023 09:58	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273708

Lab Sample ID: 1349082

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/17/2023 09:58	0.3874	U	1.0	1.5
Nitrate Nitrogen	07/17/2023 09:58	0	U	0.12	0.20
Sulfate	07/17/2023 09:58	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734

Lab Sample ID: 1349558

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0637

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/18/2023 12:55	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734 Lab Sample ID: 1349563

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0637 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/18/2023 15:24	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727

Lab Sample ID: 1349923

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	07/19/2023 11:20	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727

Lab Sample ID: 1349926

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	07/19/2023 11:20	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349257

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Sulfate	07/17/2023 14:56	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273651 Lab Sample ID: 1348122

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0637 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/14/2023 16:39	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273583 Lab Sample ID: 1348483

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/12/2023 21:58	0.3907	U	1.0	1.5
Nitrate Nitrogen	07/12/2023 21:58	0	U	0.12	0.20
Sulfate	07/12/2023 21:58	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273619 Lab Sample ID: 1348510

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/13/2023 13:11	0.4988	U	1.0	1.5
Nitrate Nitrogen	07/13/2023 13:11	0	U	0.12	0.20
Sulfate	07/13/2023 13:11	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273727 Lab Sample ID: 1348839

Analytical Prep Batch #: 130553 Preparation Date/Time: 07/18/2023 08:45

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total COD	07/19/2023 11:20	0	U	18	37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273661

Lab Sample ID: 1349068

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/14/2023 12:44	0.3799	U	1.0	1.5
Nitrate Nitrogen	07/14/2023 12:44	0	U	0.12	0.20
Sulfate	07/14/2023 12:44	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273708 Lab Sample ID: 1349088

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	07/17/2023 14:56	0.5454	U	1.0	1.5
Nitrate Nitrogen	07/17/2023 14:56	0.05280	U	0.12	0.20
Sulfate	07/17/2023 14:56	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 178914

Analytical Run #: 273734 Lab Sample ID: 1349556

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #: ICAL0637 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	07/18/2023 10:31	0	U	0.40	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

A "FAIL" qualifier only indicates the analyte concentration was above the Detection Limit.

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348124	Parent Sample No.:	1346821
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273651	ICAL Calibration #:	ICAL0637

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/14/2023	Analysis Time: --------	17:26

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	52.1		BDL	U	50.0	104		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348487	Parent Sample No.:	1346821
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273583	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/13/2023	Analysis Time: --------	02:55

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	11.1		3.6		8.00	94			
Nitrate Nitrogen	88-111	2.31		0.32	J	2.00	100			
Sulfate	87-112	62.5		57		8.00	69			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348512	Parent Sample No.:	1347302
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273619	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/13/2023	Analysis Time: --------	15:28

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	18.1		10		8.00	101		
Nitrate Nitrogen	88-111	4.65		2.6		2.00	102		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348512	Parent Sample No.:	1347302
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273619	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: -------- 07/17/2023 Analysis Time: -------- 21:24

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sulfate	87-112	156		120		40.0	90		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349074	Parent Sample No.:	1347759
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273661	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/14/2023	Analysis Time: --------	23:01

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	14.7		6.8		8.00	99		
Nitrate Nitrogen	88-111	4.05		2.0		2.00	102		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349074	Parent Sample No.:	1347759
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273661	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: -------- 07/17/2023 Analysis Time: -------- 11:30

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	99.4		69		40.0	76			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349084	Parent Sample No.:	1348146
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273708	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/17/2023	Analysis Time: --------	12:38

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	9.16		1.5	J	8.00	96			
Nitrate Nitrogen	88-111	2.77		0.76		2.00	100			
Sulfate	87-112	11.5		7.3		8.00	52			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349560	Parent Sample No.:	1348146
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273734	ICAL Calibration #:	ICAL0637

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/18/2023	Analysis Time: --------	13:39

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	48.4		BDL	U	50.0	97		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348125	Parent Sample No.:	1348124
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273651	ICAL Calibration #:	ICAL0637

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/14/2023	Analysis Time: --------	17:38

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	52.2		BDL	U	50.0	104		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348488	Parent Sample No.:	1348487
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273583	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/13/2023	Analysis Time: --------	03:18

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	11.2		3.6		8.00	95			
Nitrate Nitrogen	88-111	2.35		0.32	J	2.00	102			
Sulfate	87-112	62.6		57		8.00	70			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348513	Parent Sample No.:	1348512
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273619	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/13/2023	Analysis Time: --------	15:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	17.8		10		8.00	98		
Nitrate Nitrogen	88-111	4.59		2.6		2.00	100		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1348513	Parent Sample No.:	1348512
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273619	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: -------- 07/17/2023 Analysis Time: -------- 21:47

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	153		120		40.0	82			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349075	Parent Sample No.:	1349074
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273661	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/14/2023	Analysis Time: --------	23:24

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	14.8		6.8		8.00	100		
Nitrate Nitrogen	88-111	4.08		2.0		2.00	104		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349075	Parent Sample No.:	1349074
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273661	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: -------- 07/17/2023 Analysis Time: -------- 11:53

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	97.3		69		40.0	71			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349085	Parent Sample No.:	1349084
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273708	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: --------	07/17/2023	Analysis Time: --------	13:01

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	9.12		1.5	J	8.00	95			
Nitrate Nitrogen	88-111	2.77		0.76		2.00	100			
Sulfate	87-112	11.4		7.3		8.00	51			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	178914
% Solids for Sample:		Concentration Units:	mg/L
Sample No.:	1349561	Parent Sample No.:	1349560
Analytical Prep Batch #:	0	Analytical Preparation Date/Time:	
Analytical Run #:	273734	ICAL Calibration #:	ICAL0637

Analysis Type: *Initial Analysis* Analysis Date: -------- 07/18/2023 Analysis Time: -------- 13:52

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	48.8		BDL	U	50.0	98		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW4

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273651
ICAL Calibration #: ICAL0637
Sample #: 1348123
Parent Sample #: 1346821

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	07/14/2023 17:15	20	0.4	U	0.4	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW4

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273583
ICAL Calibration #:
Sample #: 1348484
Parent Sample #: 1346821

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/13/2023 01:47	10	3.6		3.66		2		
Nitrate Nitrogen	07/13/2023 01:47	10	0.32	J	0.324	J	1		
Sulfate	07/13/2023 01:47	10	57		57.2		0		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW6

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273619
ICAL Calibration #:
Sample #: 1348511
Parent Sample #: 1347302

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/13/2023	15:05	10	10		10.2		2		
Nitrate Nitrogen	07/13/2023	15:05	10	2.6		2.60		0		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW6

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273619
ICAL Calibration #:
Sample #: 1348511
Parent Sample #: 1347302

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	07/17/2023 21:01	10	120		121		1		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

50MW2

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273661
ICAL Calibration #:
Sample #: 1349073
Parent Sample #: 1347759

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/14/2023	22:38	10	6.8		6.84		1		
Nitrate Nitrogen	07/14/2023	22:38	10	2.0		2.02		1		
Sulfate	07/14/2023	22:38	10	69		68.6		1		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW2

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273708
ICAL Calibration #:
Sample #: 1349083
Parent Sample #: 1348146

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/17/2023	12:15	10	1.5	J	1.52	J	1		
Nitrate Nitrogen	07/17/2023	12:15	10	0.76		0.756		1		
Sulfate	07/17/2023	12:15	10	7.3		9.38		25		*FAIL*

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: S.U.
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273725
ICAL Calibration #:
Sample #: 1349493
Parent Sample #: 1348149

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	07/17/2023 16:00	1	7.89		7.90		0		ECTRC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW2

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273734
ICAL Calibration #: ICAL0637
Sample #: 1349559
Parent Sample #: 1348146

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	07/18/2023 13:26	20	0.4	U	0.4	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW4**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273651
ICAL Calibration #: ICAL0637
Sample #: 1348125
Parent Sample #: 1348124

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	07/14/2023 17:38	20	52.1		52.2		0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW4**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273583
ICAL Calibration #:
Sample #: 1348488
Parent Sample #: 1348487

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/13/2023	03:18	15	11.1		11.2		1		
Nitrate Nitrogen	07/13/2023	03:18	15	2.31		2.35		2		
Sulfate	07/13/2023	03:18	15	62.5		62.6		0		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW6**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273619
ICAL Calibration #:
Sample #: 1348513
Parent Sample #: 1348512

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/13/2023	15:51	15	18.1		17.8		1		
Nitrate Nitrogen	07/13/2023	15:51	15	4.65		4.59		1		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW6**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273619
ICAL Calibration #:
Sample #: 1348513
Parent Sample #: 1348512

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	07/17/2023 21:47	15	156		153		2		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **50MW2**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273661
ICAL Calibration #:
Sample #: 1349075
Parent Sample #: 1349074

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/14/2023	23:24	15	14.7		14.8		1		
Nitrate Nitrogen	07/14/2023	23:24	15	4.05		4.08		1		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **50MW2**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273661
ICAL Calibration #:
Sample #: 1349075
Parent Sample #: 1349074

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	07/17/2023 11:53	15	99.4		97.3		2		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW2**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273708
ICAL Calibration #:
Sample #: 1349085
Parent Sample #: 1349084

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time		RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	07/17/2023	13:01	15	9.16		9.12		1		
Nitrate Nitrogen	07/17/2023	13:01	15	2.77		2.77		0		
Sulfate	07/17/2023	13:01	15	11.5		11.4		0		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW2**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 178914
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 273734
ICAL Calibration #: ICAL0637
Sample #: 1349561
Parent Sample #: 1349560

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Time	RPD Limit	Matrix Spike Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	07/18/2023 13:52	20	48.4		48.8		1		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273651

Sample No.:#: 1348121

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0637

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	07/14/2023 16:26	85-111	52.52		50.0	105		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273583

Sample No.:#: 1348482

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	07/12/2023 21:35	87-111	14.91		15.00	99		
Nitrate Nitrogen	07/12/2023 21:35	88-111	3.566		3.500	102		
Sulfate	07/12/2023 21:35	87-112	24.98		25.00	100		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273619 Sample No.:#: 1348509

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	07/13/2023 12:48	87-111	15.19		15.00	101		
Nitrate Nitrogen	07/13/2023 12:48	88-111	3.570		3.500	102		
Sulfate	07/13/2023 12:48	87-112	24.78		25.00	99		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273727

Sample No.:#: 1348840

Analytical Prep Batch #: 130553

Preparation Date/Time: 07/18/2023 08:45

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
COD	07/19/2023 11:20	90-110	415.1		400.0	104		SP

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273661

Sample No.:#: 1349067

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	07/14/2023 12:21	87-111	15.59		15.00	104		
Nitrate Nitrogen	07/14/2023 12:21	88-111	3.586		3.500	102		
Sulfate	07/14/2023 12:21	87-112	25.13		25.00	101		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273708

Sample No.:#: 1349087

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	07/17/2023 14:33	87-111	15.64		15.00	104		
Nitrate Nitrogen	07/17/2023 14:33	88-111	3.559		3.500	102		
Sulfate	07/17/2023 14:33	87-112	24.94		25.00	100		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 178914

Concentration Units: mg/L

Analytical Run #: 273734

Sample No.:#: 1349555

Analytical Prep Batch #: 0

Preparation Date/Time:

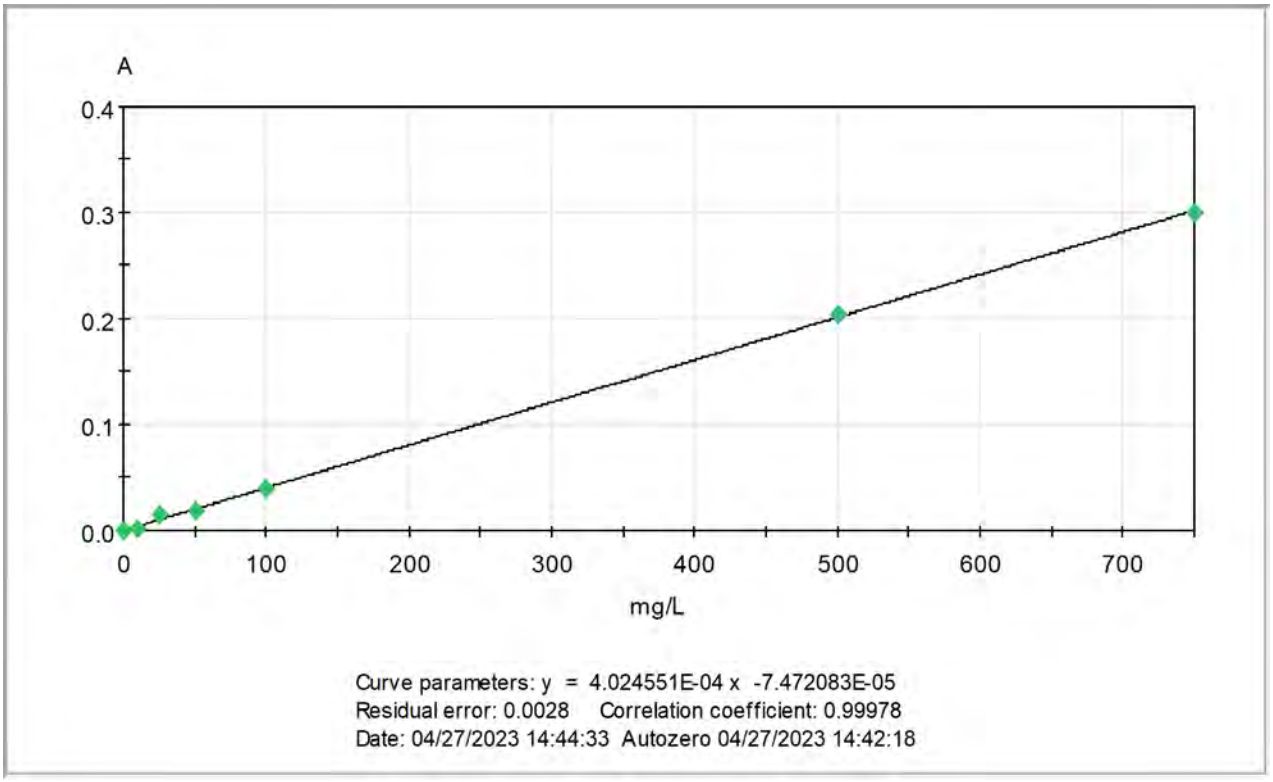
ICAL Calibration #: ICAL0637

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	07/18/2023 10:17	85-111	51.74		50.0	103		TOC

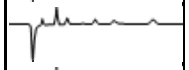
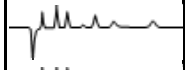
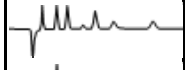
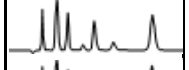
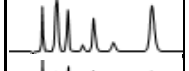
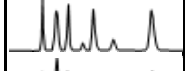
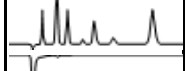
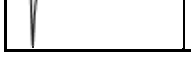
INORGANICS
RAW DATA
DOCUMENTS

Method: W54537.mqa (600 nm)
Last modified: 04/27/2023 14:45:07 by CTLABORATORIES\SPEC
Spectrophotometer: GENESYS 30
Serial number: 9A1W117104
Firmware: 104
Autozero: 07/19/2023 11:00:09
Measured: 07/19/2023 11:20:08 by CTLABORATORIES\SPEC
Result filename: 273727 DATA.rqa



Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.168	417.6
ICB	1	-0.001	-2.3
CCV	1	0.161	400.2
CCB	1	-0.002	-4.8
1348840	1	0.167	415.1
1348839	1	-0.001	-2.3
1346384	1	-0.001	-2.3
MSW1346384	1	0.063	156.7
MSDW1346384	1	0.064	159.2
DUP1346384	1	-0.001	-2.3
1348149	1	0.018	44.9
CCV	1	0.162	402.7
CCB	1	-0.002	-4.8

Sequence: 060723 - 272483 272507 IC4750A
Last Update Operator: Administrator

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	STD1	1.0000	Calibration Standard	1	21	5000	Anions 1.0	IC4750A	Finished
	STD2	1.0000	Calibration Standard	2	22	5000	Anions 1.0	IC4750A	Finished
	STD3	1.0000	Calibration Standard	3	23	5000	Anions 1.0	IC4750A	Finished
	STD4	1.0000	Calibration Standard	4	24	5000	Anions 1.0	IC4750A	Finished
	STD5	1.0000	Calibration Standard	5	25	5000	Anions 1.0	IC4750A	Finished
	STD6	1.0000	Calibration Standard	6	26	5000	Anions 1.0	IC4750A	Finished
	STD7	1.0000	Calibration Standard	7	27	5000	Anions 1.0	IC4750A	Finished
	STD8	1.0000	Calibration Standard	8	28	5000	Anions 1.0	IC4750A	Finished
	STD9	1.0000	Calibration Standard	9	29	5000	Anions 1.0	IC4750A	Finished
	ICV	1.0000	Unknown		31	5000	Anions 1.0	IC4750A	Finished
	ICB	1.0000	Unknown		33	5000	Anions 1.0	IC4750A	Finished

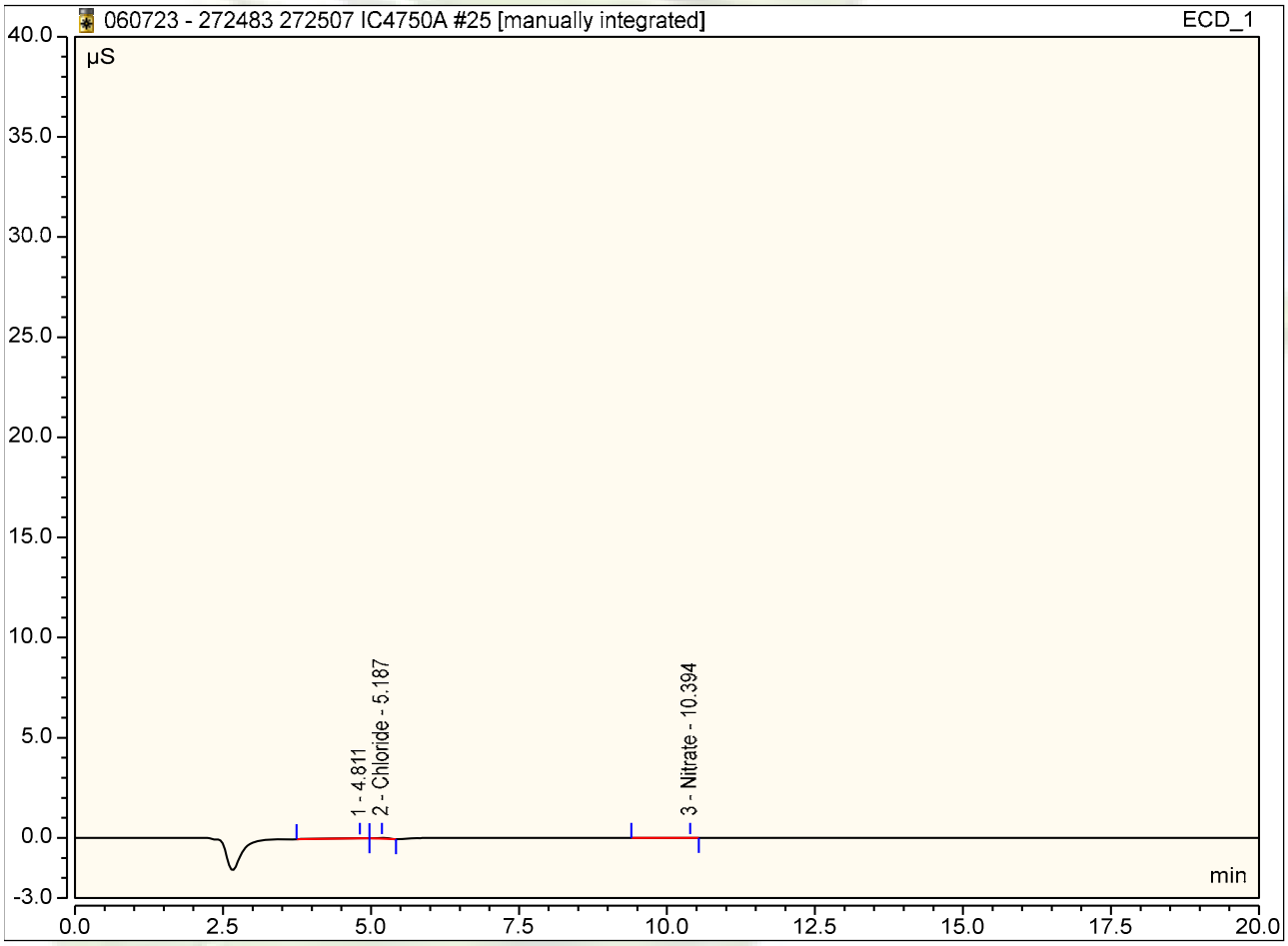
Calibration Concentrations

Instrument:AQUION 4	Cal. File: IC4750A				ICV	IC4744 IC4752		Analyst/Date: TMG 06/07/2023		
Analyte	Cal Level 1 (mg/L)	Cal Level 2 (mg/L)	Cal Level 3 (mg/L)	Cal Level 4 (mg/L)	Cal Level 5 (mg/L)	Cal Level 6 (mg/L)	Cal Level 7 (mg/L)	Cal Level 8 (mg/L)	Cal Level 9 (mg/L)	ICV (mg/L)
Fluoride	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Chloride	0.0	0.5	0.75	1.0	5.0	10.0	20.0	30.0	40.0	15.0
Bromide	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrite	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrate	0.0	0.1	0.30	0.5	1.0	2.0	5.0	7.0		3.5
O-Phoshorous	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Sulfate	0.0	0.5	0.75	1.0	5.0	10.0	30.0	50.0	70.0	25.0

Peak Integration Report

Sample Name:	**STD1**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 15:29**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	5.19	Chloride	0.010	0.044	0.3861
3	10.39	Nitrate	0.000	0.001	0.0504



RD 06/16/2023

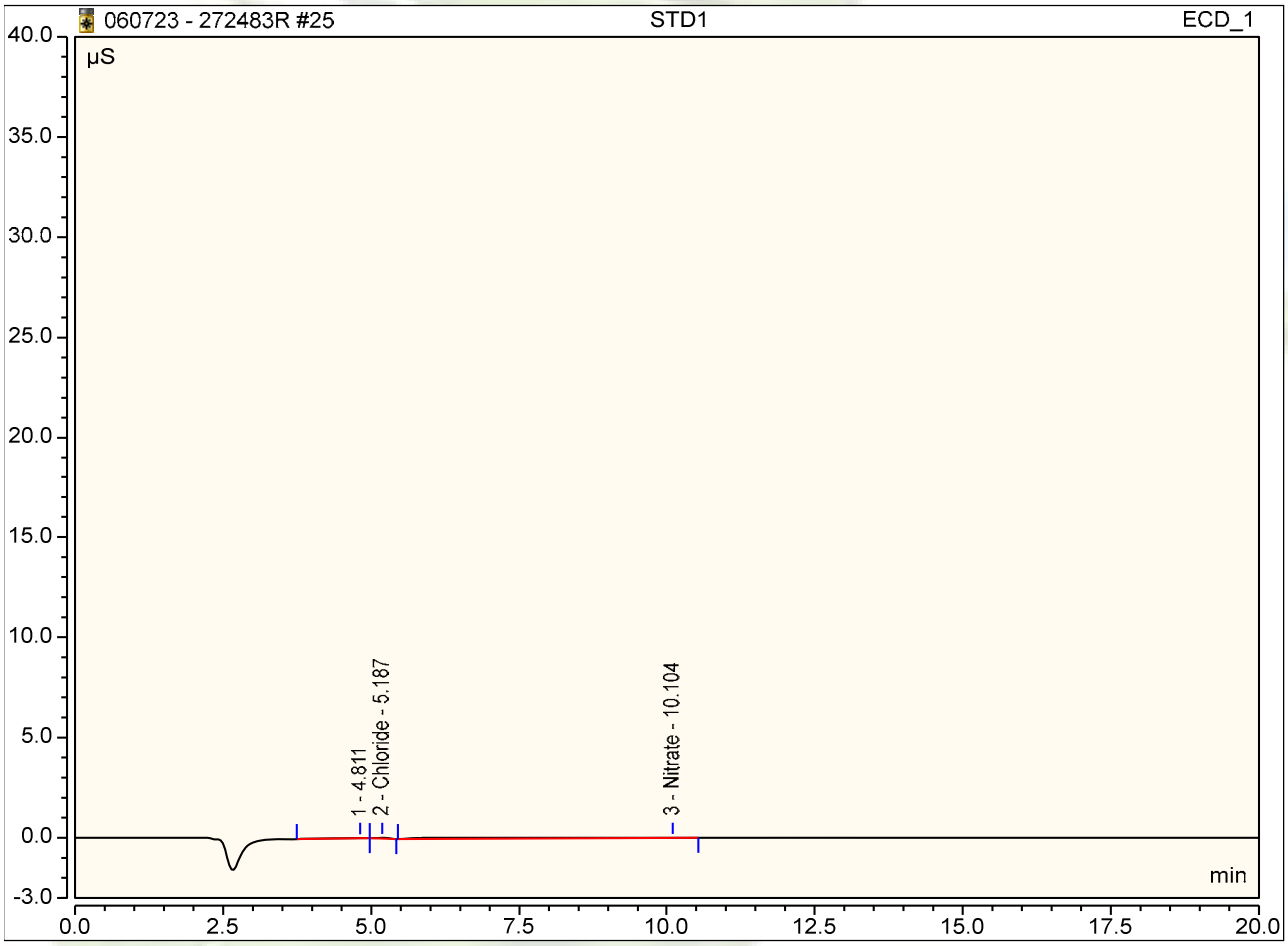
Before Manual Integration
REASON #4

TMG 06/16/2023

Peak Integration Report

Sample Name:	**STD1**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 15:29**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	5.19	Chloride	0.010	0.044	0.3861
3	10.10	Nitrate	0.151	0.008	0.1790

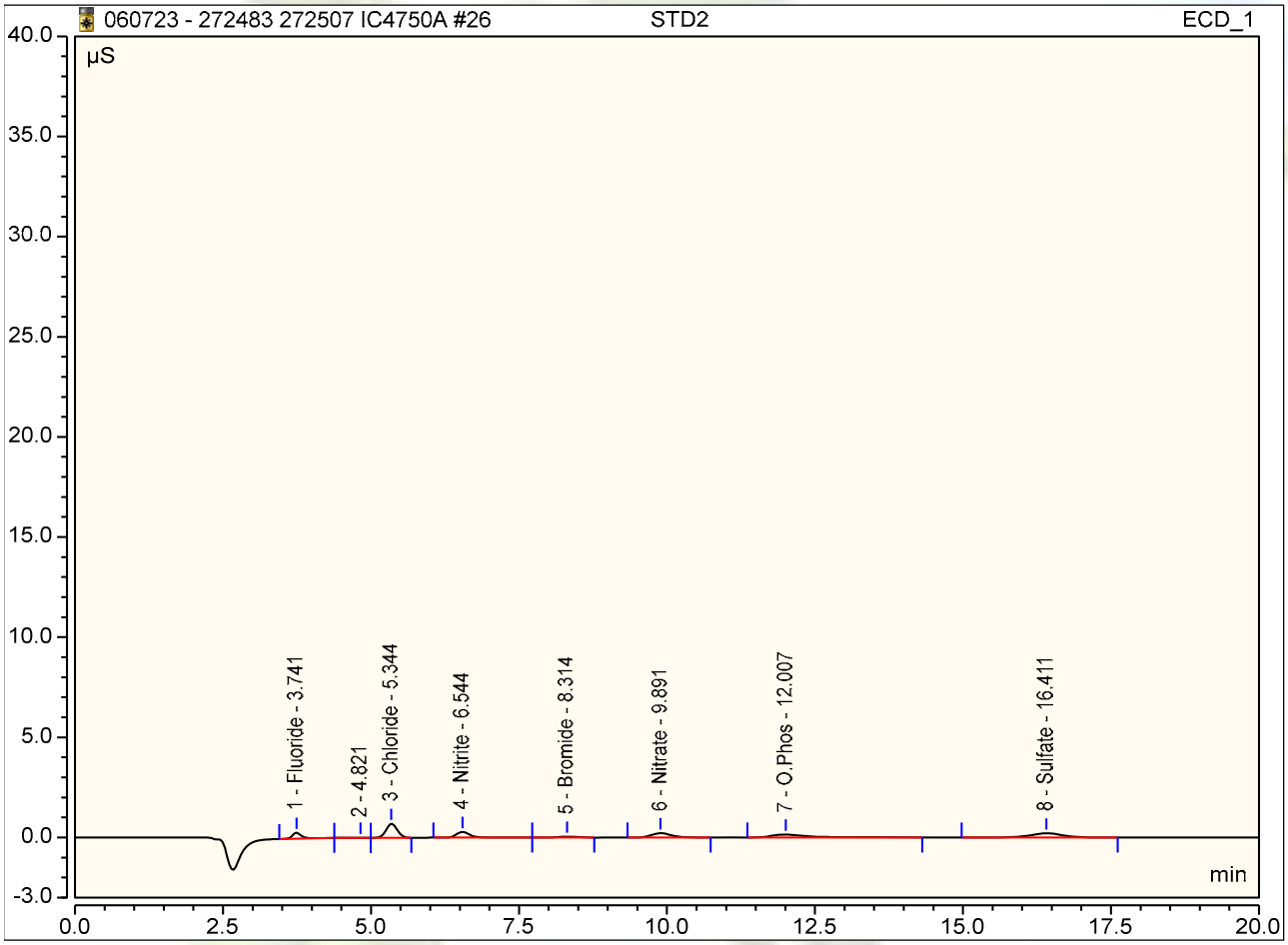


Chromeleon (c) Dionex 1996-2009
Version 7.2.9.11323

Peak Integration Report

Sample Name:	**STD2**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 15:51**	*Run Time:*	**20.00**

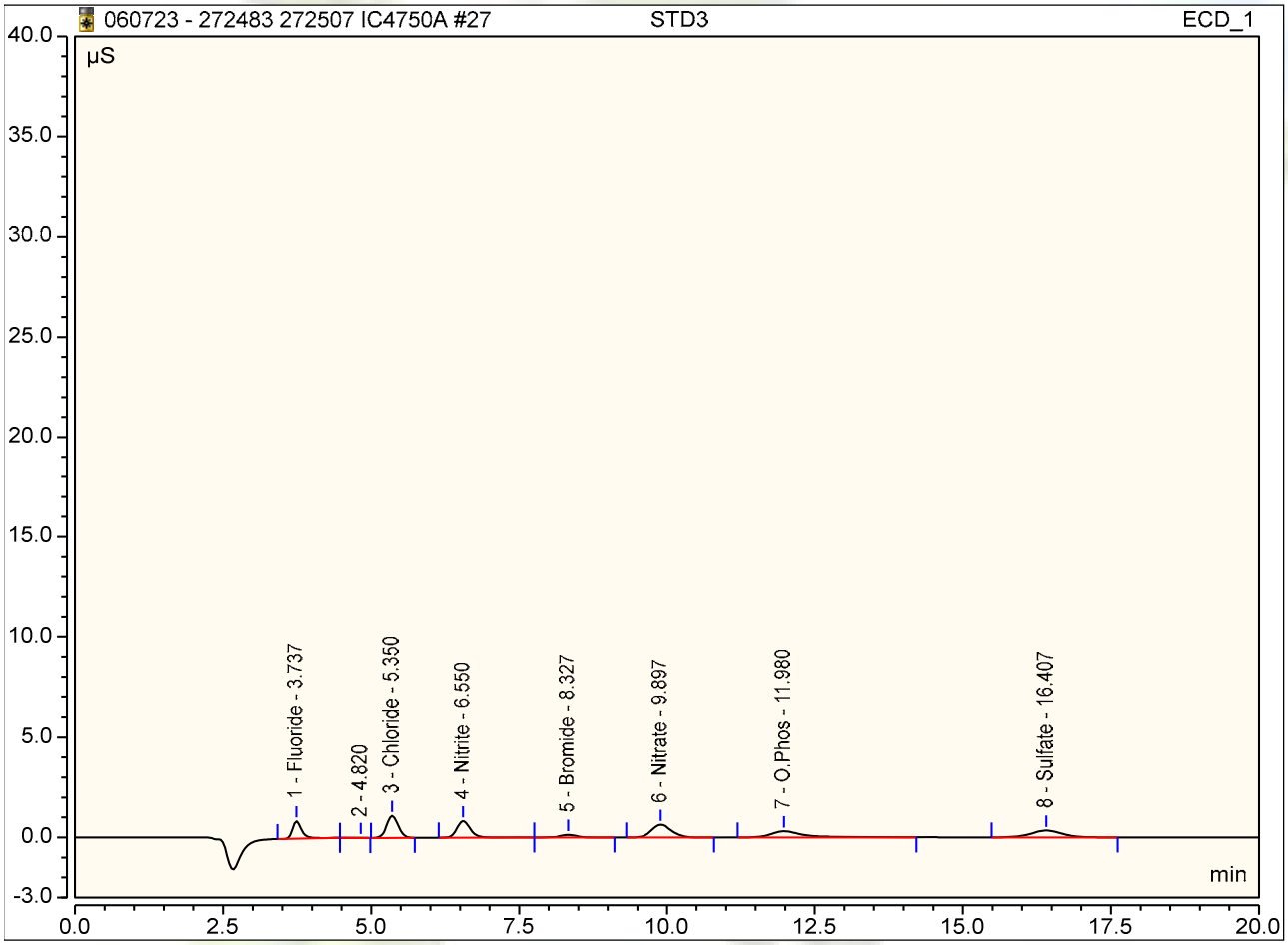
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	0.053	0.294	0.1225
3	5.34	Chloride	0.159	0.712	0.7517
4	6.54	Nitrite	0.076	0.287	0.1291
5	8.31	Bromide	0.015	0.048	0.0964
6	9.89	Nitrate	0.086	0.221	0.1412
7	12.01	O.Phos	0.106	0.155	0.0064
8	16.41	Sulfate	0.129	0.210	1.0241



Peak Integration Report

Sample Name:	**STD3**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 16:14**	*Run Time:*	**20.00**

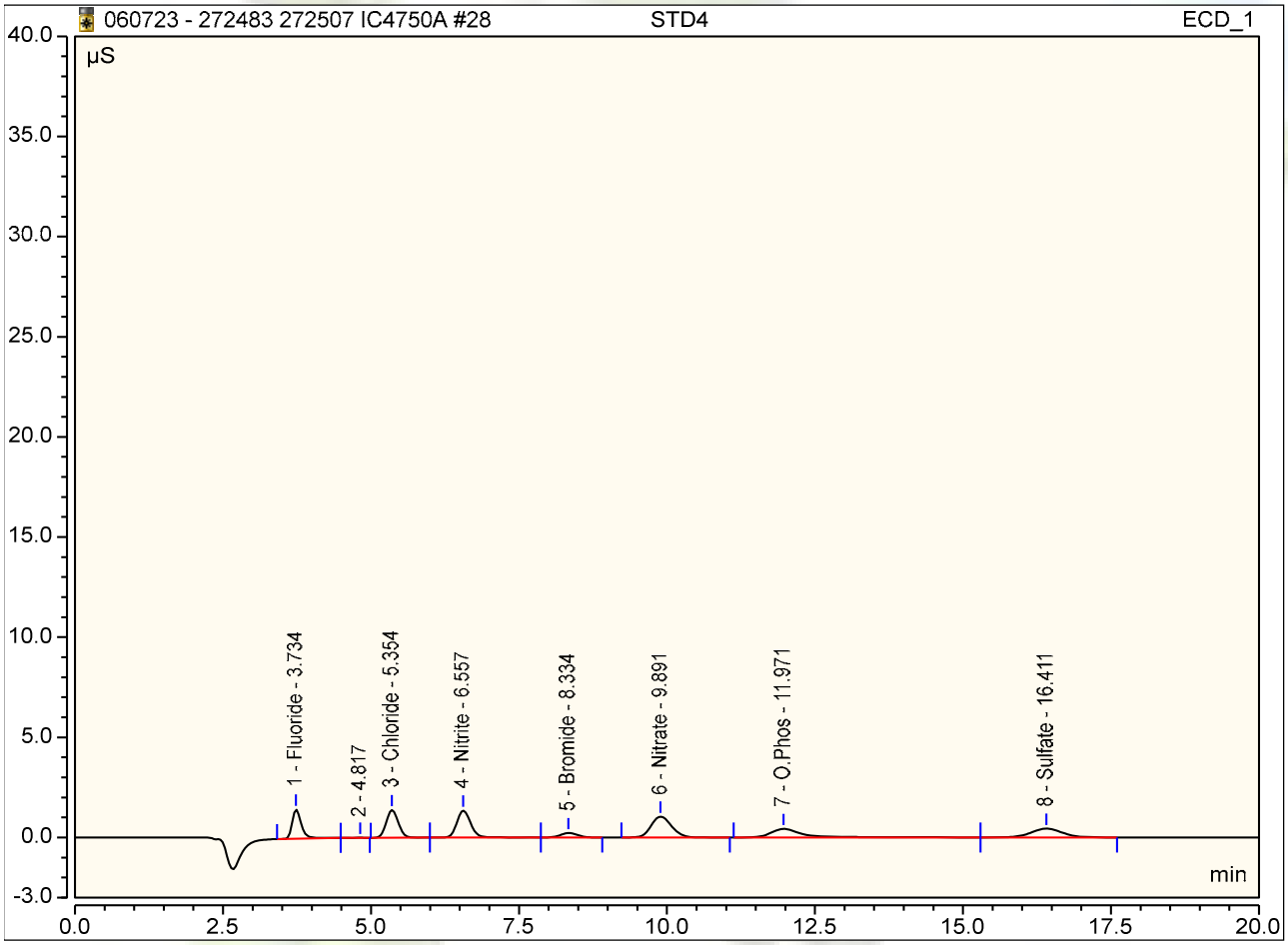
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	0.159	0.873	0.3102
3	5.35	Chloride	0.254	1.100	0.9852
4	6.55	Nitrite	0.221	0.823	0.3102
5	8.33	Bromide	0.045	0.138	0.2938
6	9.90	Nitrate	0.253	0.636	0.3191
7	11.98	O.Phos	0.200	0.312	0.3017
8	16.41	Sulfate	0.209	0.341	1.2960



Peak Integration Report

Sample Name:	**STD4**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 16:36**	*Run Time:*	**20.00**

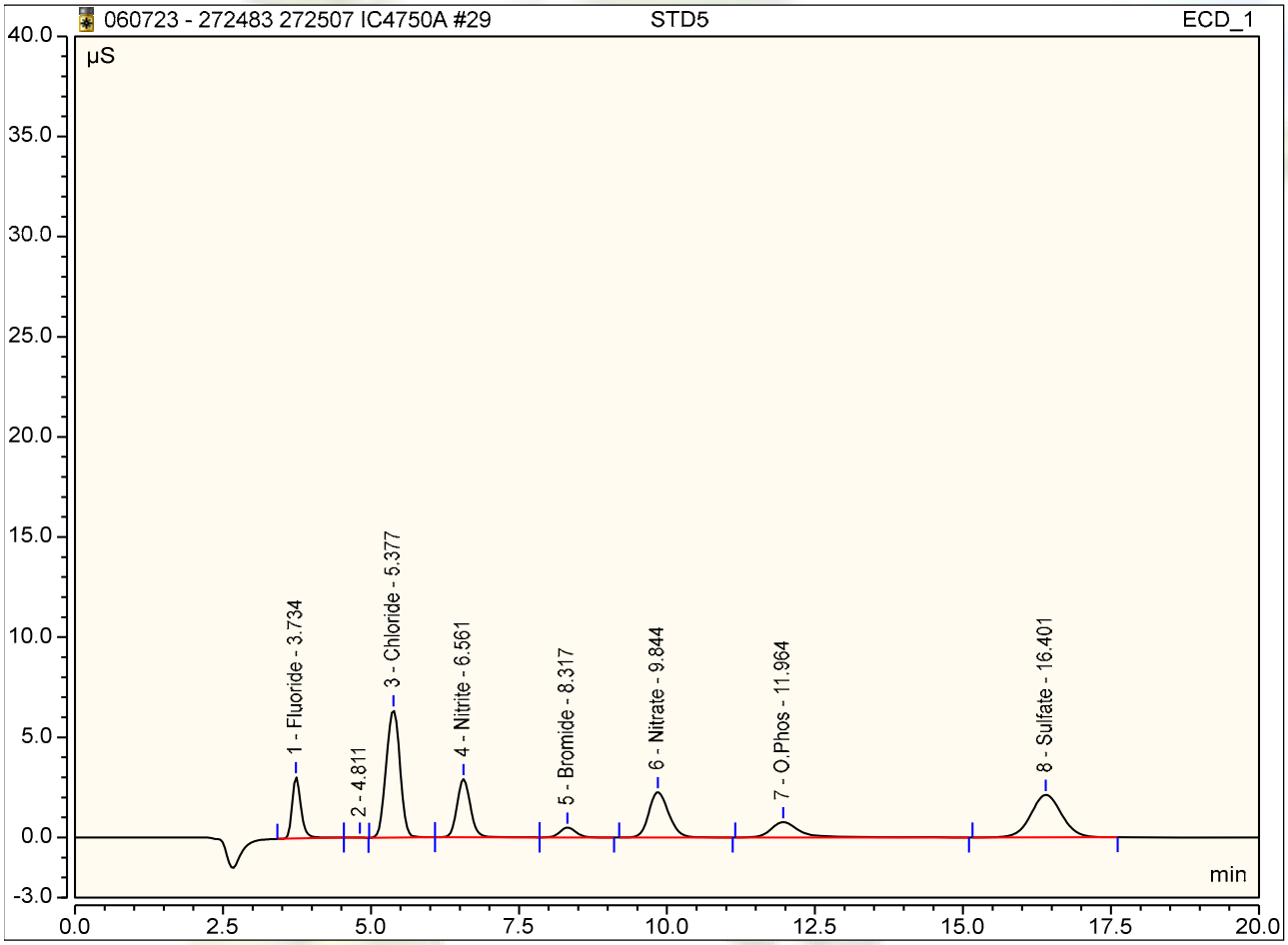
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.262	1.457	0.4930
3	5.35	Chloride	0.332	1.392	1.1742
4	6.56	Nitrite	0.369	1.355	0.4962
5	8.33	Bromide	0.075	0.227	0.4939
6	9.89	Nitrate	0.421	1.043	0.4974
7	11.97	O.Phos	0.274	0.431	0.5353
8	16.41	Sulfate	0.268	0.436	1.4963



Peak Integration Report

Sample Name:	**STD5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 16:59**	*Run Time:*	**20.00**

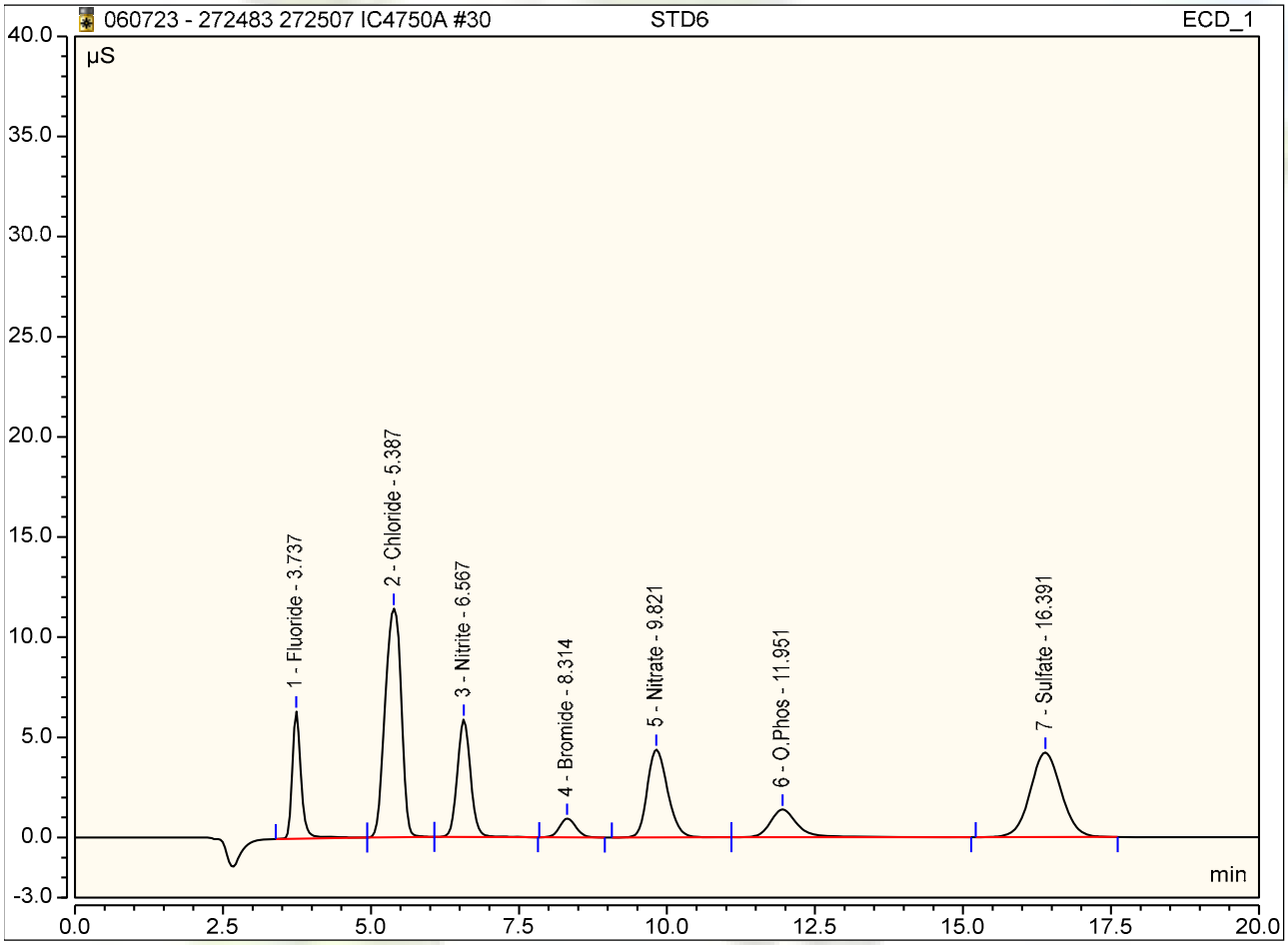
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.543	3.071	0.9874
3	5.38	Chloride	1.739	6.364	4.6220
4	6.56	Nitrite	0.766	2.909	0.9930
5	8.32	Bromide	0.153	0.486	1.0165
6	9.84	Nitrate	0.882	2.268	0.9876
7	11.96	O.Phos	0.439	0.765	1.0526
8	16.40	Sulfate	1.285	2.124	4.9415



Peak Integration Report

Sample Name:	**STD6**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 17:21**	*Run Time:*	**20.00**

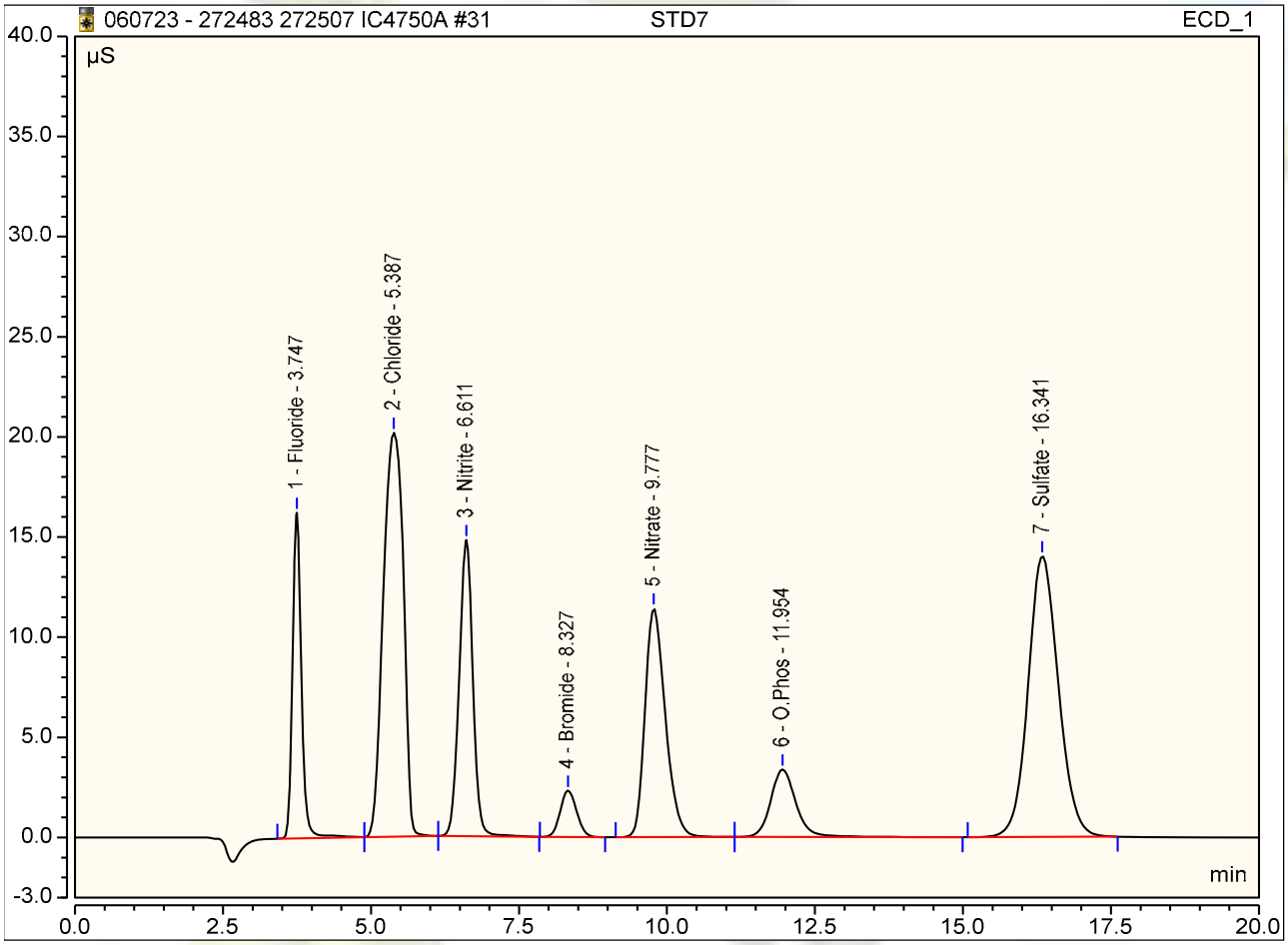
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.102	6.357	1.9747
2	5.39	Chloride	3.627	11.411	9.2452
3	6.57	Nitrite	1.532	5.865	1.9515
4	8.31	Bromide	0.300	0.941	2.0027
5	9.82	Nitrate	1.745	4.388	1.9057
6	11.95	O.Phos	0.748	1.387	2.0272
7	16.39	Sulfate	2.562	4.220	9.2697



Peak Integration Report

Sample Name:	**STD7**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 17:43**	*Run Time:*	**20.00**

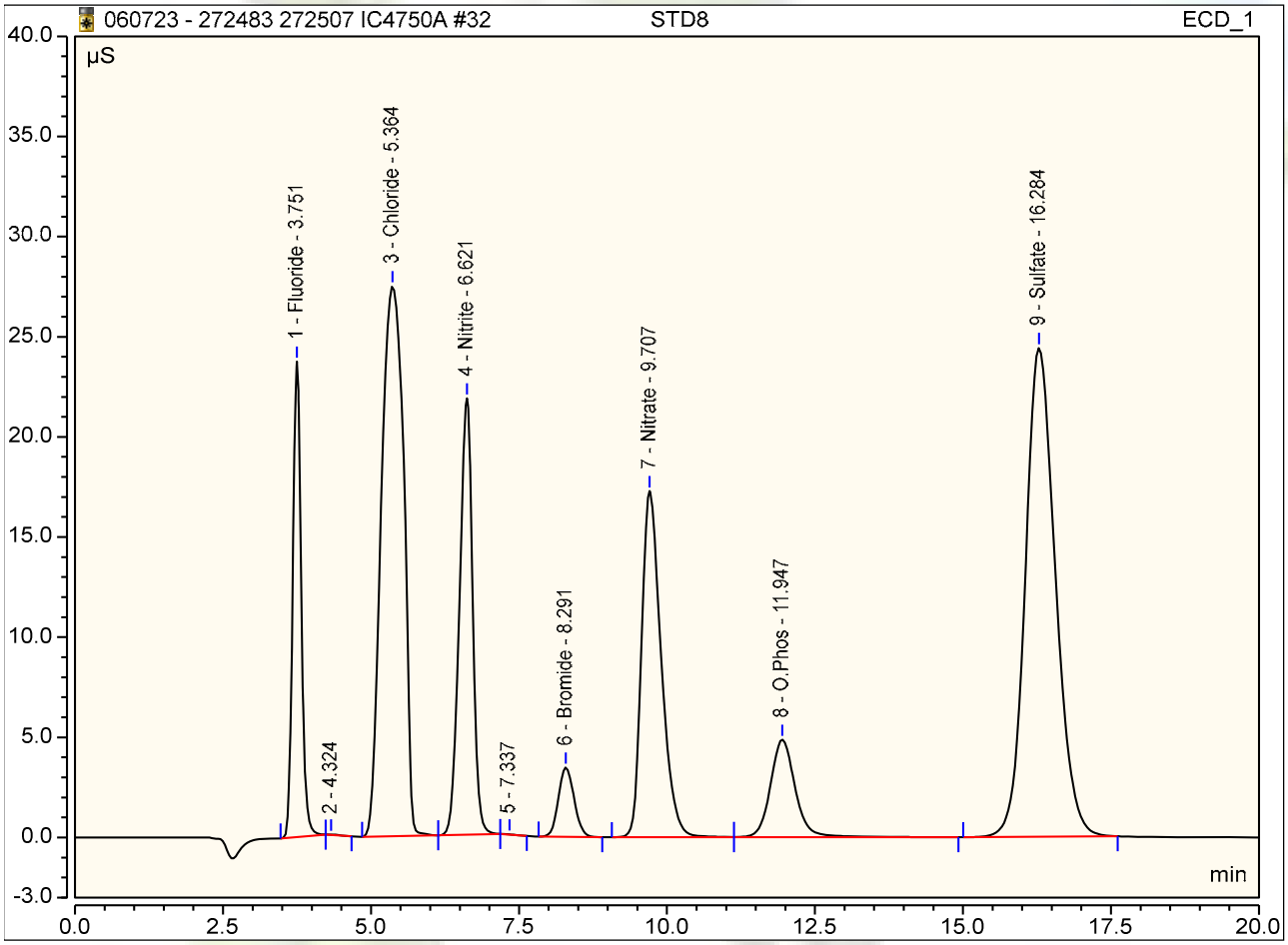
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.75	Fluoride	2.822	16.258	5.0123
2	5.39	Chloride	7.936	20.173	19.7996
3	6.61	Nitrite	3.984	14.795	5.0200
4	8.33	Bromide	0.748	2.313	4.9967
5	9.78	Nitrate	4.560	11.421	4.8987
6	11.95	O.Phos	1.686	3.374	4.9769
7	16.34	Sulfate	8.334	14.019	28.8248



Peak Integration Report

Sample Name:	**STD8**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 18:06**	*Run Time:*	**20.00**

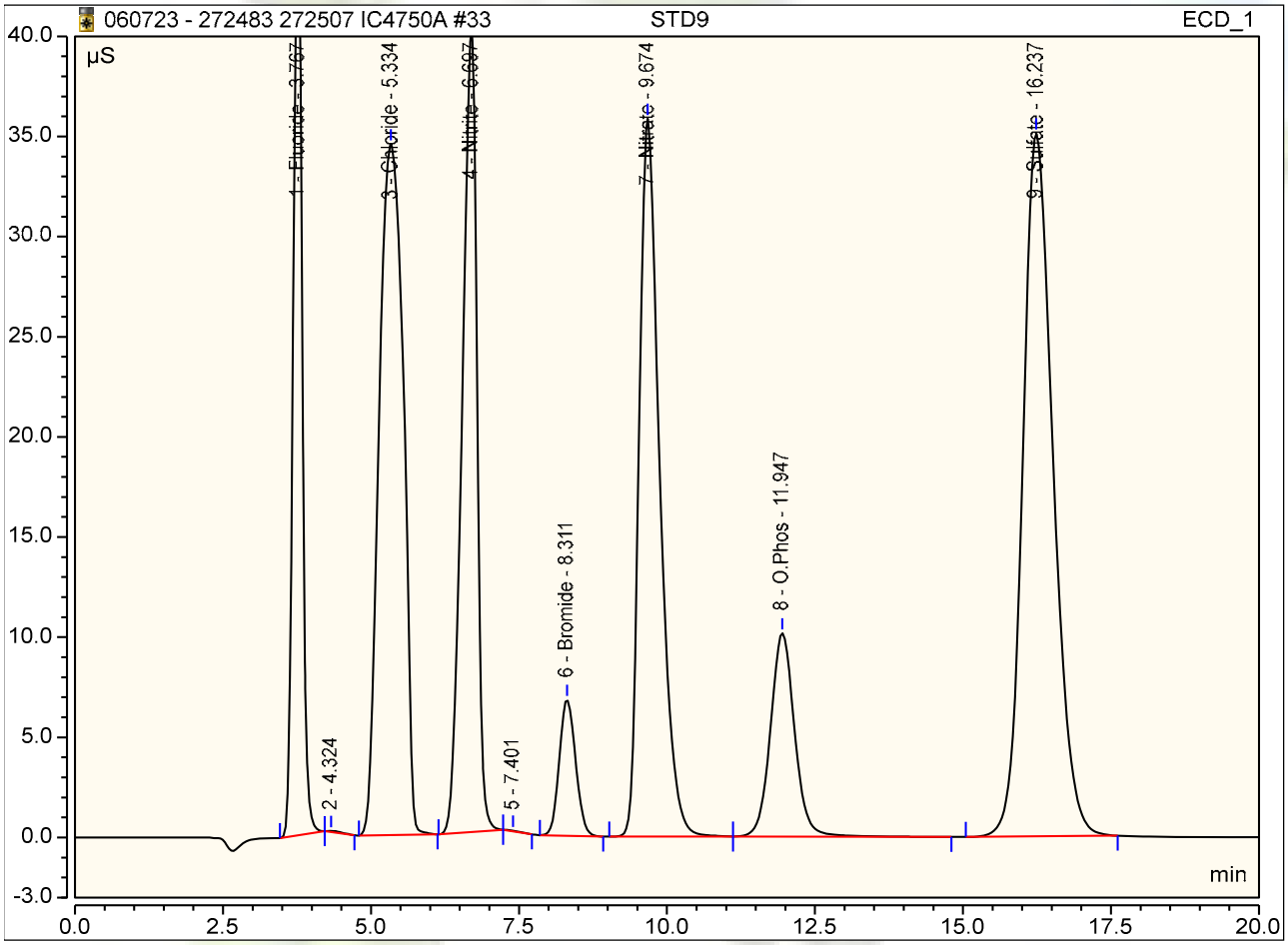
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.75	Fluoride	3.929	23.740	6.9652
3	5.36	Chloride	12.039	27.461	29.8468
4	6.62	Nitrite	5.618	21.780	7.0646
6	8.29	Bromide	1.061	3.462	7.0882
7	9.71	Nitrate	6.630	17.272	7.0998
8	11.95	O.Phos	2.354	4.862	7.0768
9	16.28	Sulfate	14.380	24.406	49.3075



Peak Integration Report

Sample Name:	**STD9**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 18:28**	*Run Time:*	**20.00**

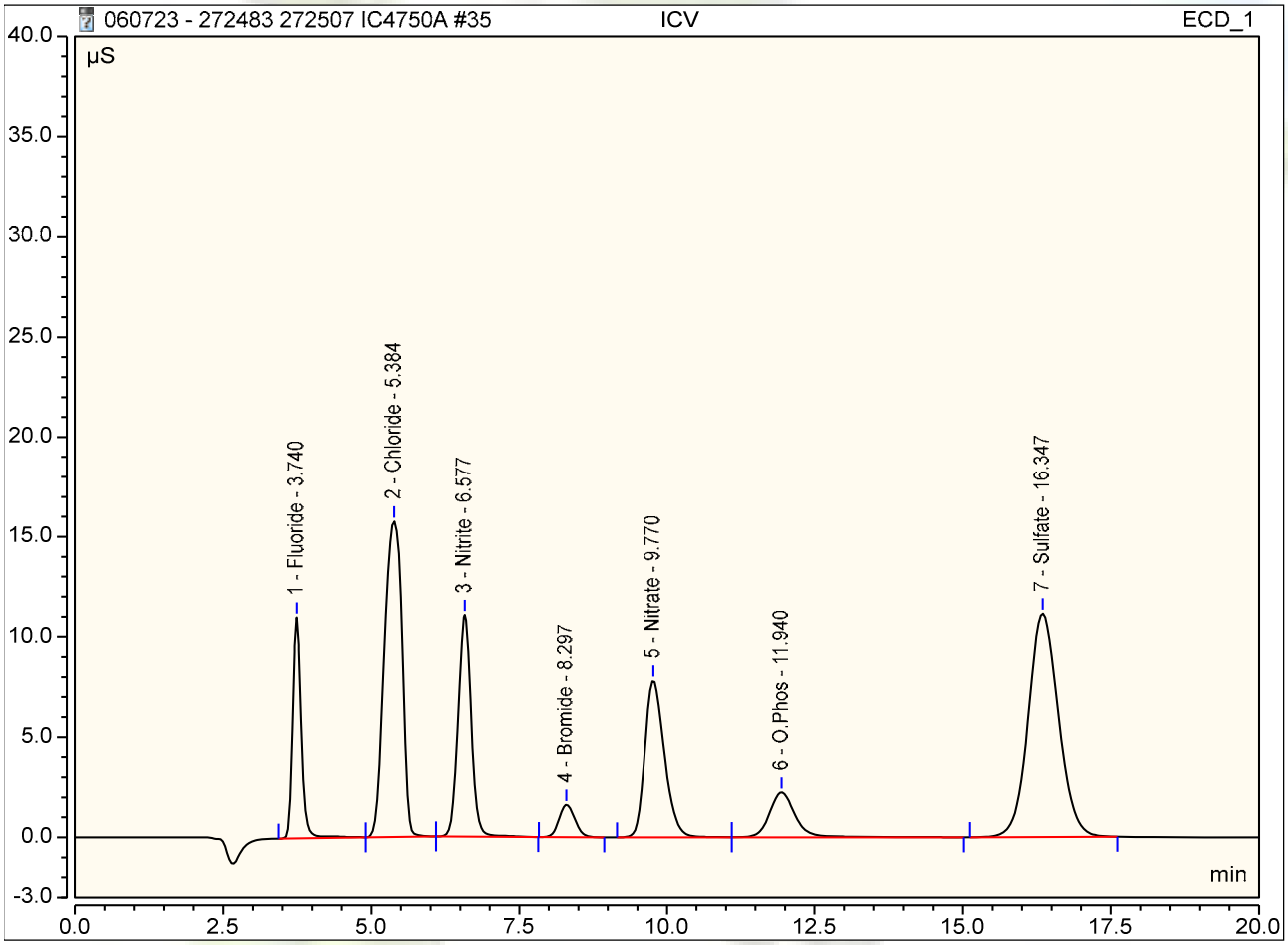
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.77	Fluoride	8.101	46.301	14.3302
3	5.33	Chloride	16.363	34.498	40.4391
4	6.70	Nitrite	11.597	40.047	14.5477
6	8.31	Bromide	2.172	6.789	14.5136
7	9.67	Nitrate	14.353	35.837	15.3105
8	11.95	O.Phos	4.795	10.157	14.7553
9	16.24	Sulfate	20.809	35.107	71.0902



Peak Integration Report

Sample Name:	**ICV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 19:13**	*Run Time:*	**20.00**

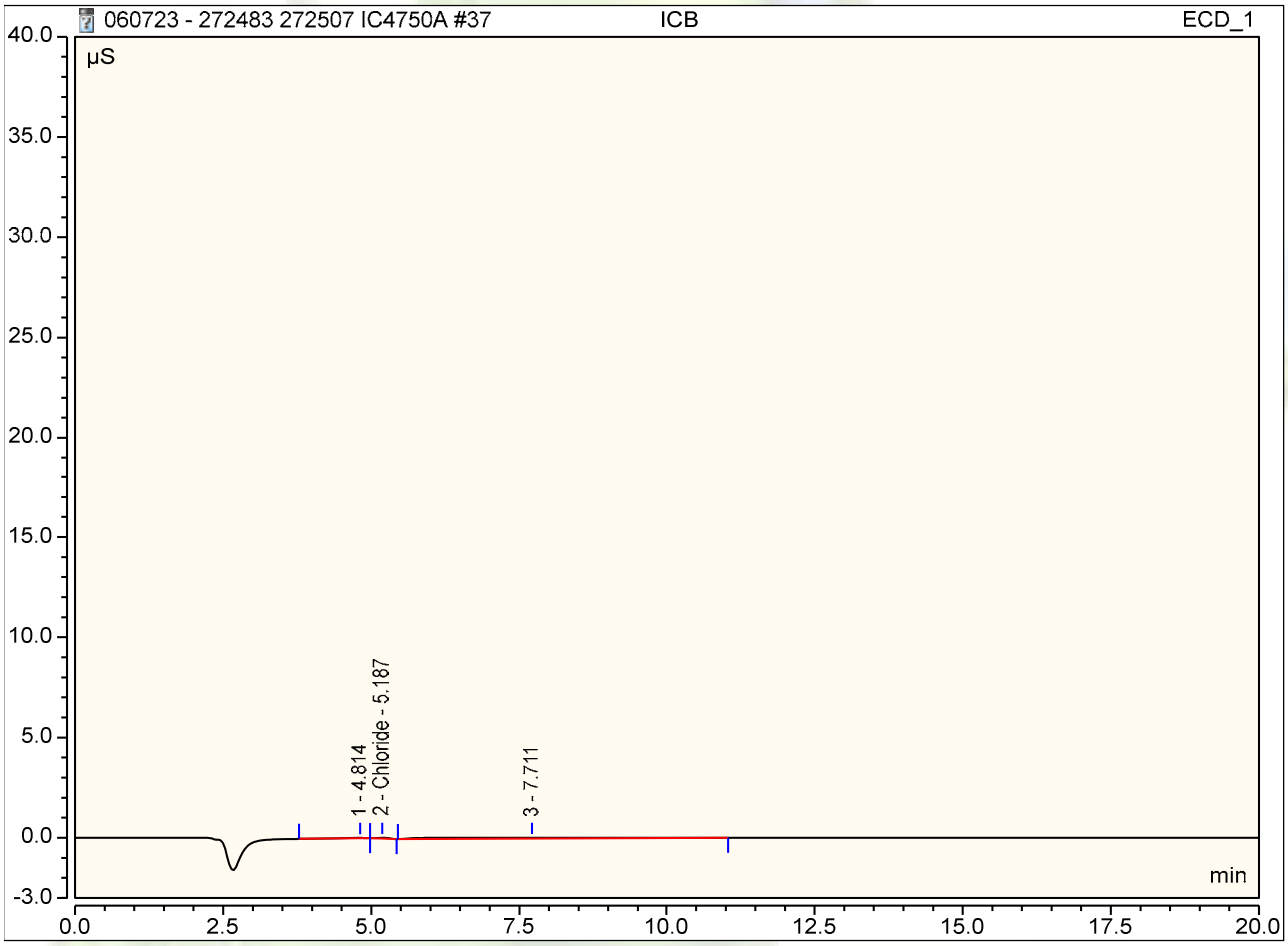
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.848	11.011	3.2926
2	5.38	Chloride	5.488	15.757	13.8039
3	6.58	Nitrite	2.847	11.055	3.5964
4	8.30	Bromide	0.503	1.628	3.3582
5	9.77	Nitrate	3.024	7.834	3.2655
6	11.94	O.Phos	1.125	2.243	3.2124
7	16.35	Sulfate	6.624	11.143	23.0317



Peak Integration Report

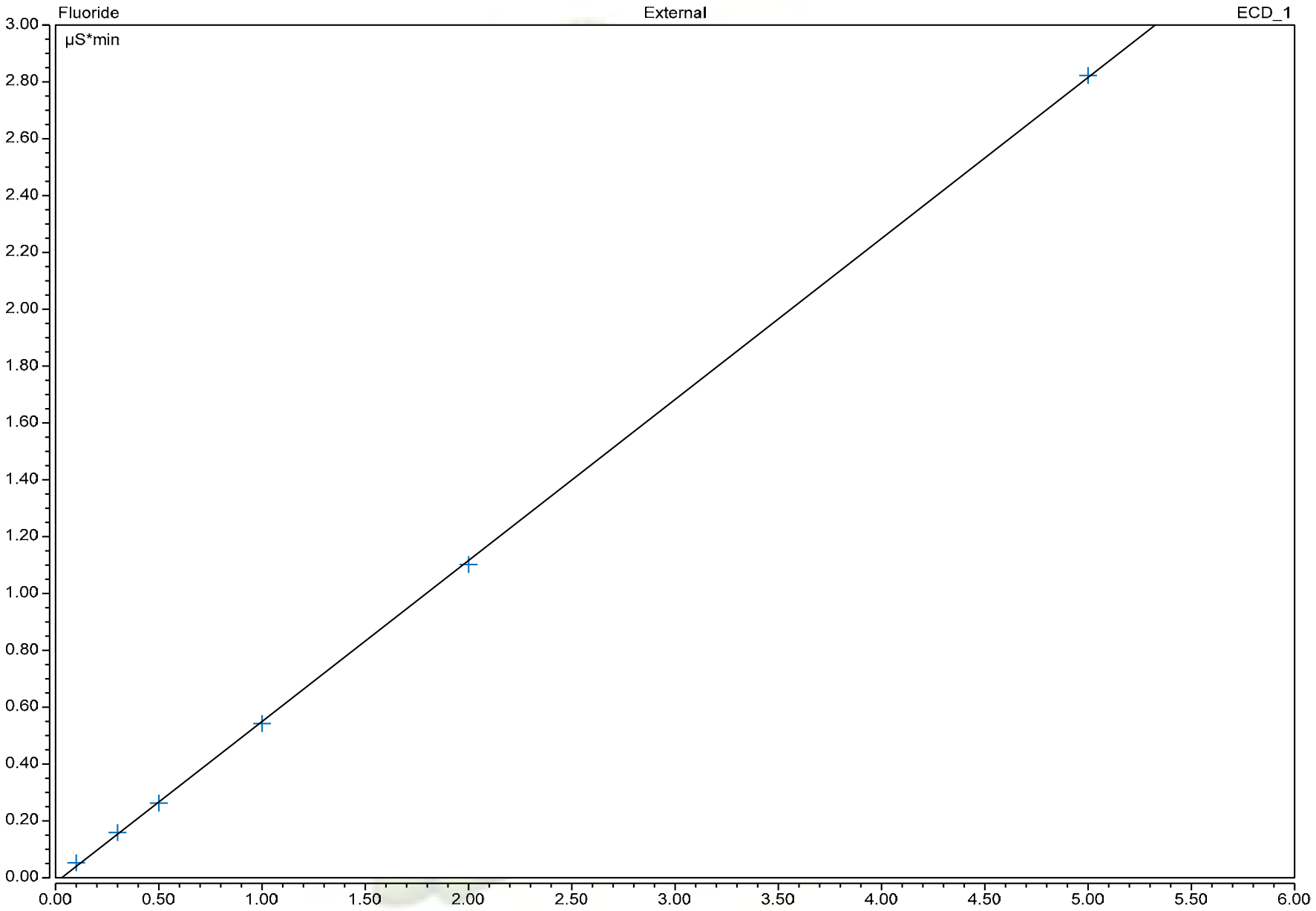
Sample Name:	**ICB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**07-Jun-2023 / 19:58**	*Run Time:*	**20.00**

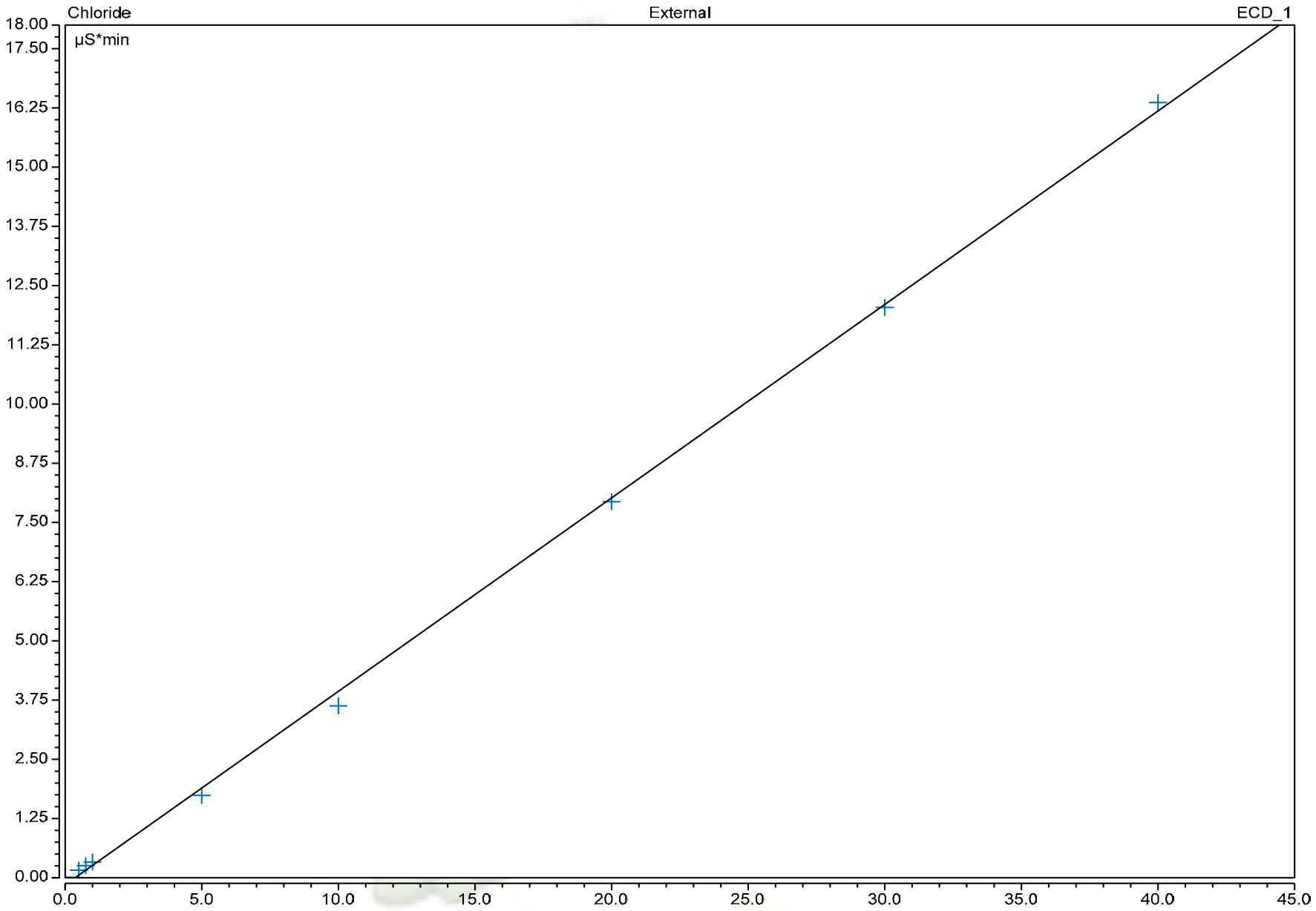
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	5.19	Chloride	0.009	0.043	0.3854

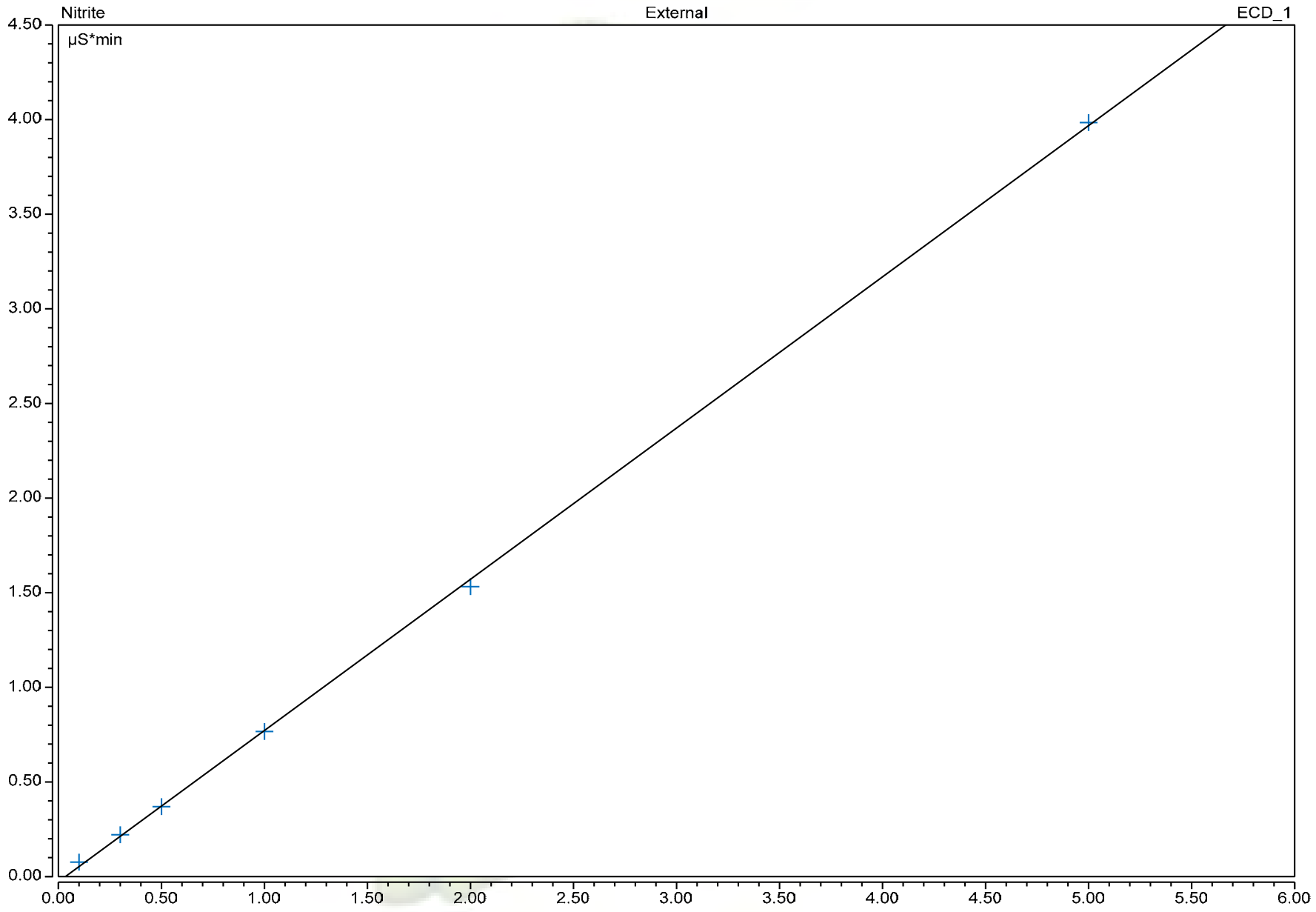


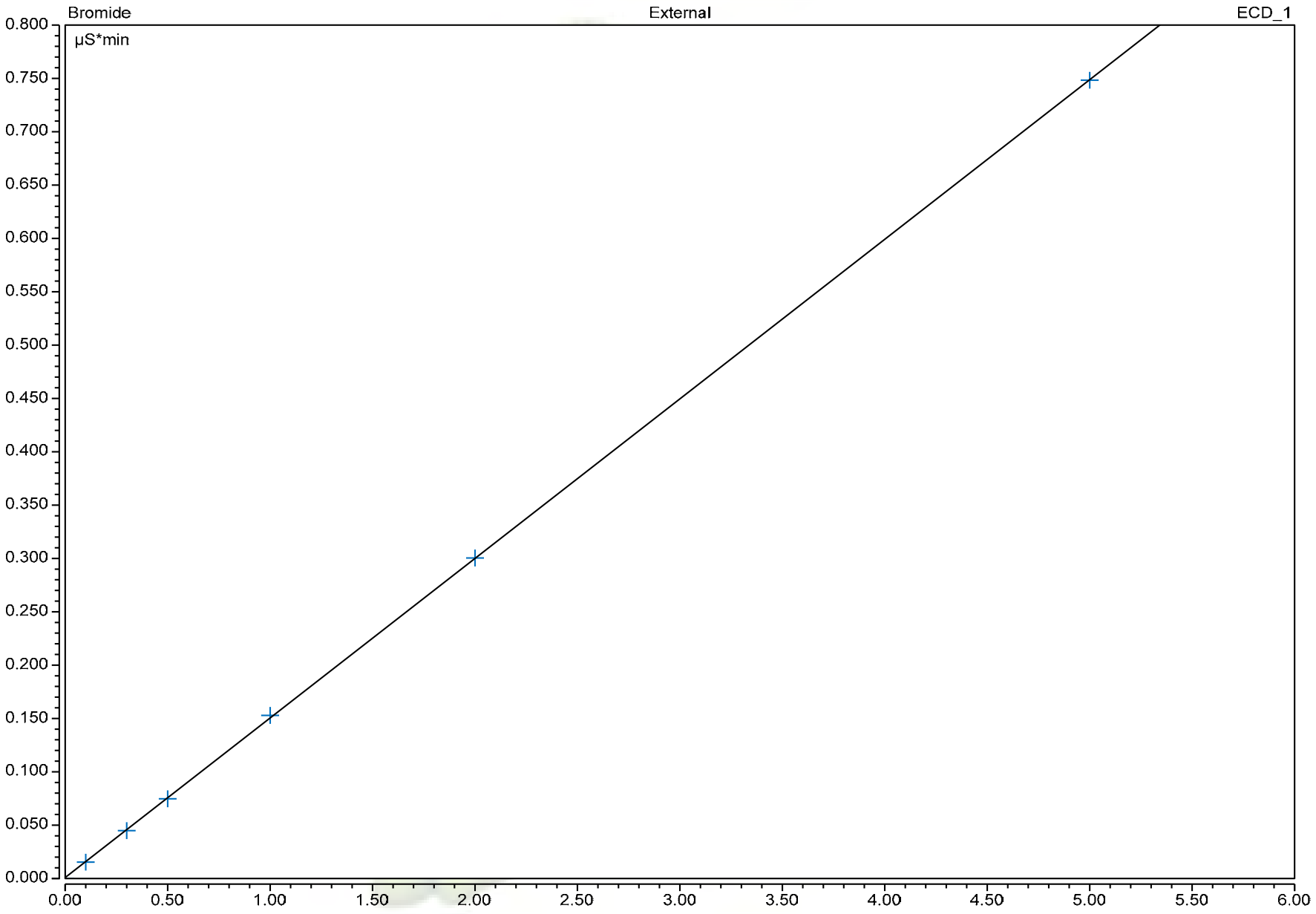
Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset*	*Area*	*6*	*1.3791*	*0.99991*	*-0.0168*	*0.5665*	*0.0000*
2	Chloride	Lin, WithOffset	Area	9	3.6822	0.99928	-0.1479	0.4083	0.0000
3	Nitrite	Lin, WithOffset	Area	6	2.1166	0.99978	-0.0271	0.7990	0.0000
4	Bromide	Lin, WithOffset	Area	6	0.6541	0.99998	0.0009	0.1496	0.0000
5	Nitrate	Lin, WithOffset	Area	8	3.8790	0.99929	-0.0473	0.9405	0.0000
6	O.Phos	Lin, WithOffset	Area	6	3.2738	0.99918	0.1040	0.3179	0.0000
7	Sulfate	Lin, WithOffset	Area	8	4.2171	0.99911	-0.1736	0.2952	0.0000
Maximum					**4.2171**	0.99998			
Minimum					0.6541	**0.99911**			

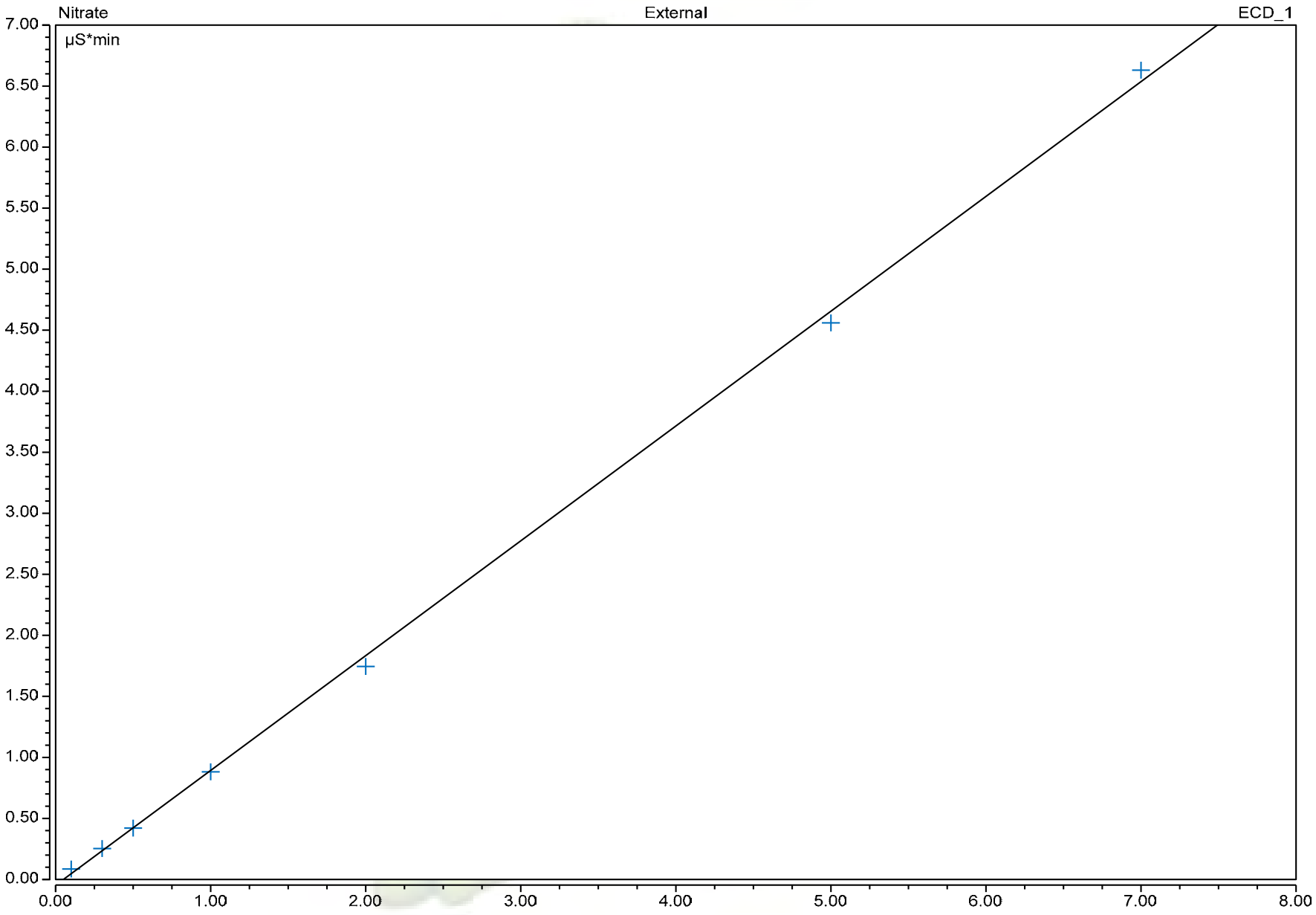
RO 06/16/2023

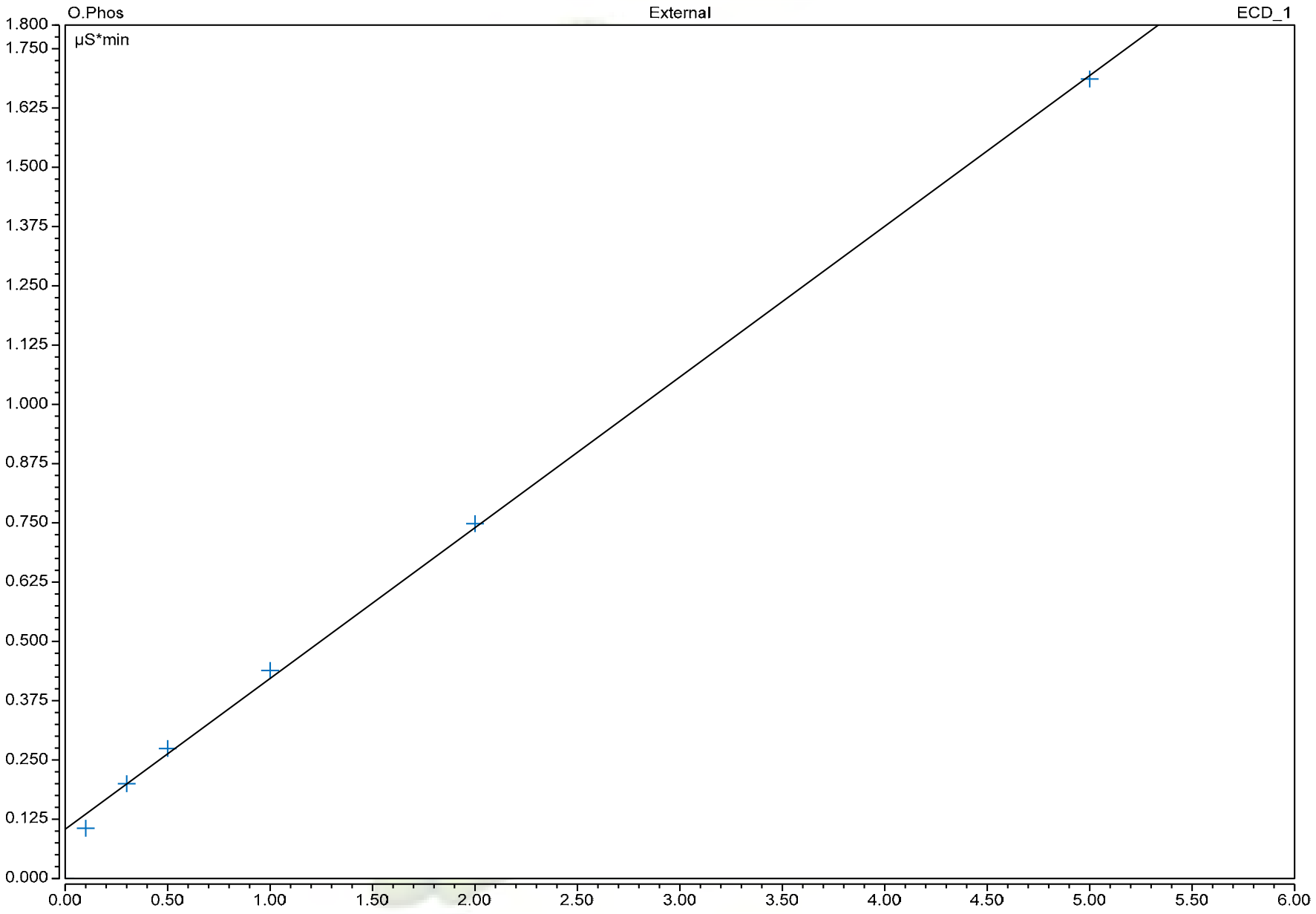

Fluoride
External
ECD_1
µS*min
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

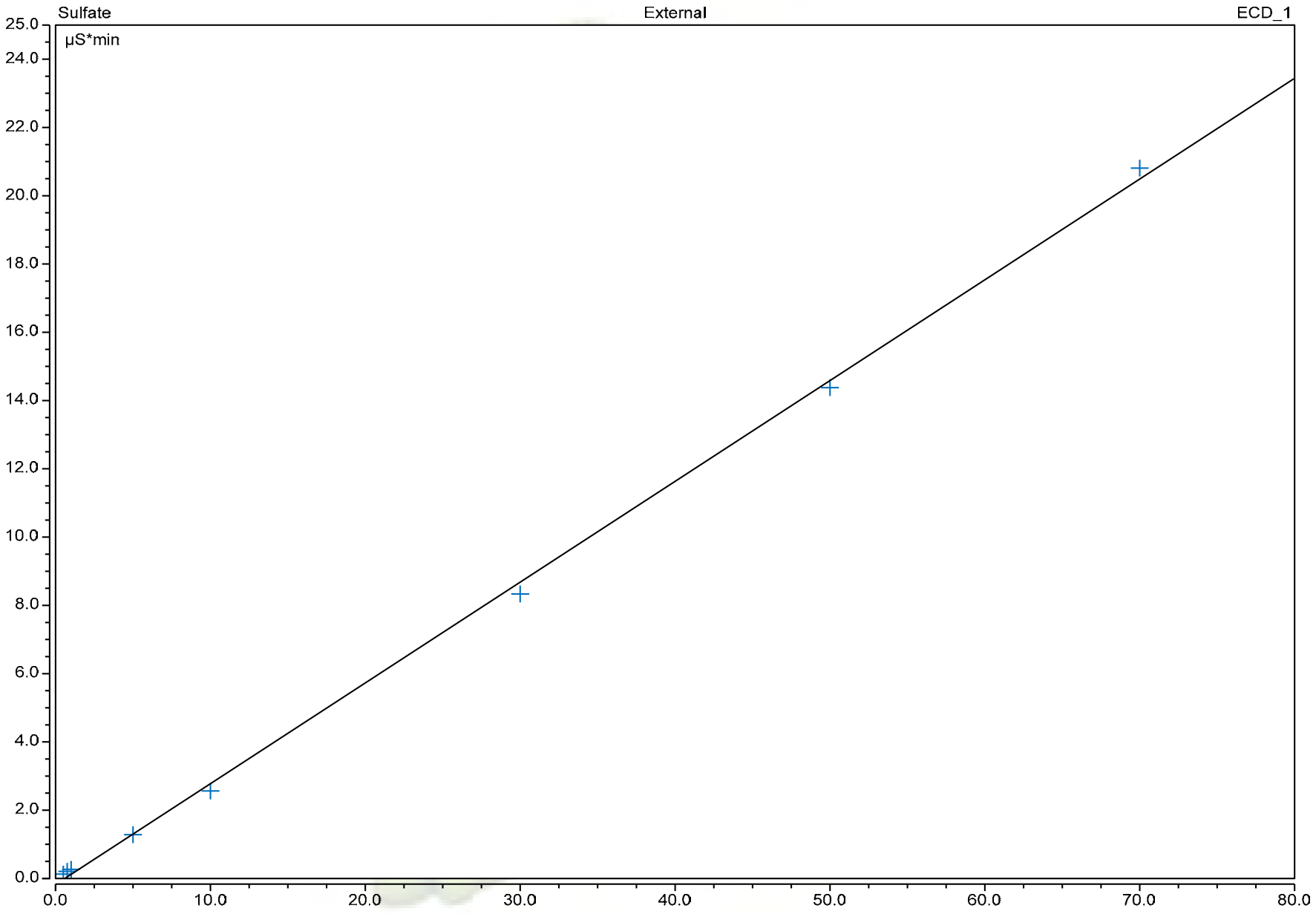

Chloride
External
ECD_1
µS*min
18.00
17.50
16.25
15.00
13.75
12.50
11.25
10.00
8.75
7.50
6.25
5.00
3.75
2.50
1.25
0.00
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0

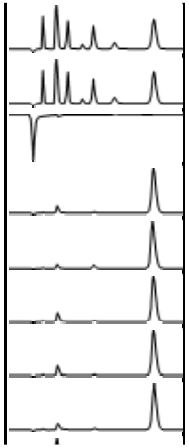

Nitrite
External
ECD_1
µS*min
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

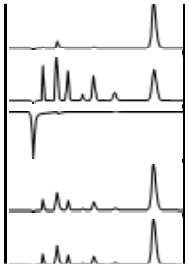

Bromide
External
ECD_1
µS*min
0.800
0.750
0.700
0.650
0.600
0.550
0.500
0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

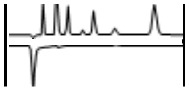
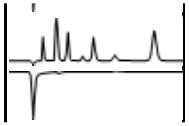
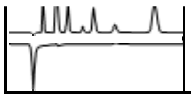

Nitrate
External
ECD_1
µS*min
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00


O.Phos
External
ECD_1
µS*min
1.800
1.750
1.625
1.500
1.375
1.250
1.125
1.000
0.875
0.750
0.625
0.500
0.375
0.250
0.125
0.000
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00


Sulfate
External
ECD_1
µS*min
25.0
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0

	CCV	1.0000	Unknown		27	5000	Anions	IC4750A	Finished
	LCSW	1.0000	Unknown		28	5000	Anions	IC4750A	Finished
	MBW-CCB	1.0000	Unknown		29	5000	Anions	IC4750A	Finished
	1346821	1.0000	Unknown		30	5000	Anions	IC4750A	Finished
	1346822	1.0000	Unknown		31	5000	Anions	IC4750A	Finished
	1346823	1.0000	Unknown		32	5000	Anions	IC4750A	Finished
	1346824	1.0000	Unknown		33	5000	Anions	IC4750A	Finished
	1346825	1.0000	Unknown		34	5000	Anions	IC4750A	Finished

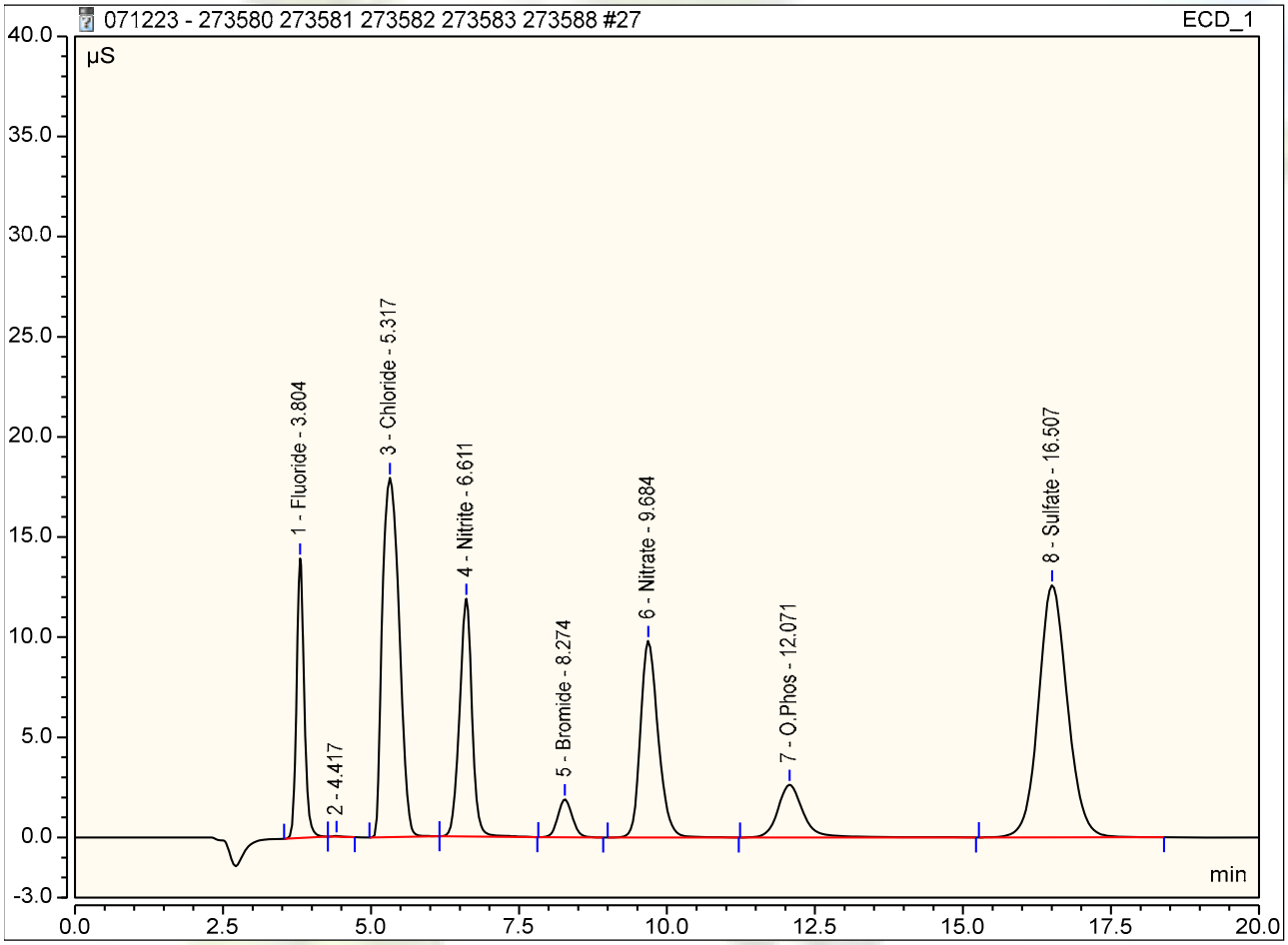
	DUP1346821	1.0000	Unknown		39	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		40	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		41	5000	Anions	IC4750A	Finished
	MSW1346821	1.0000	Unknown		42	5000	Anions	IC4750A	Finished
	MSDW1346821	1.0000	Unknown		43	5000	Anions	IC4750A	Finished

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		48	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		49	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		2	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		3	5000	Anions	IC4750A	Finished
	1346822X5	1.0000	Unknown		7	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		12	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		13	5000	Anions	IC4750A	Finished

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 21:12**	*Run Time:*	**20.00**

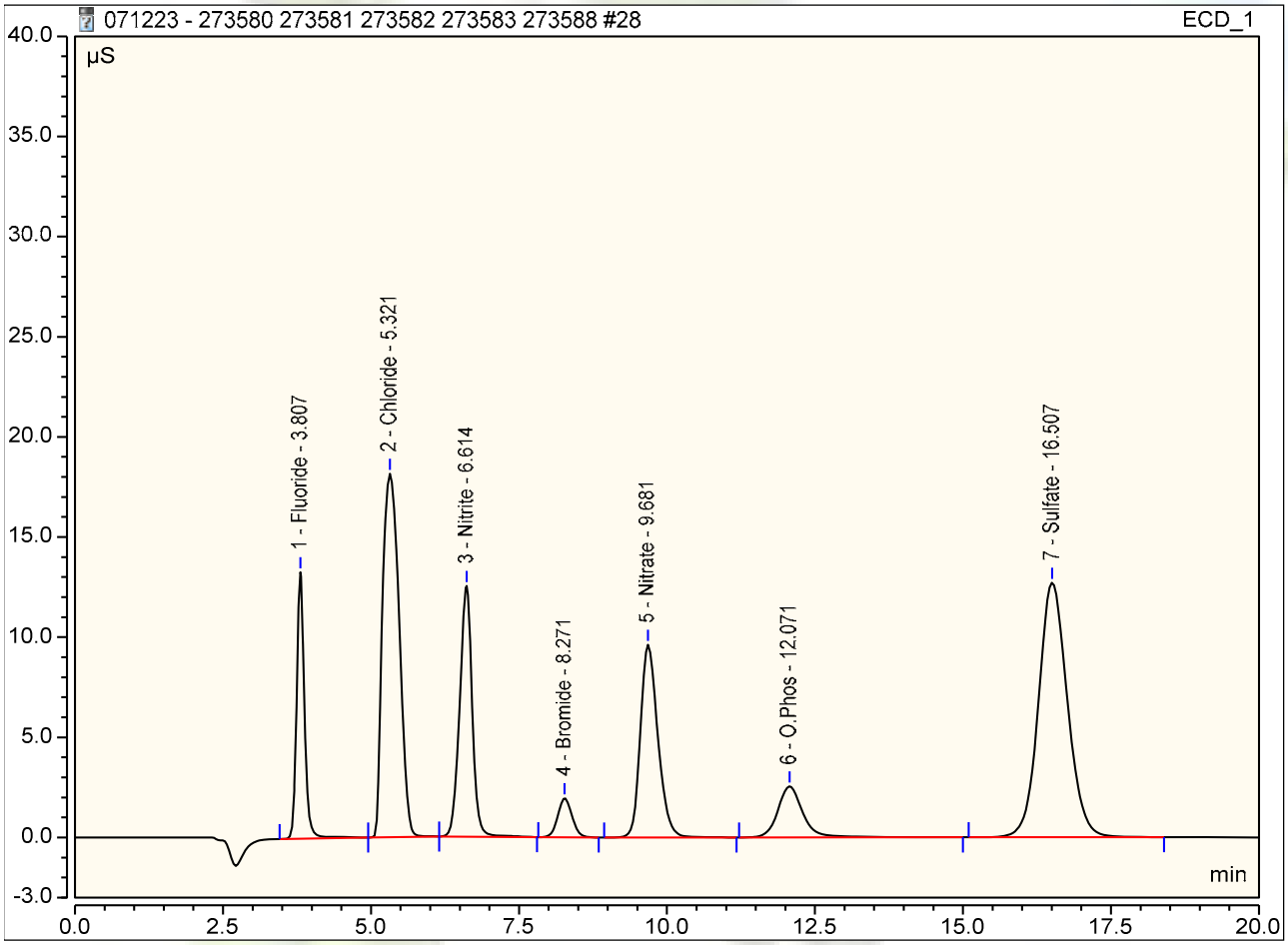
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.80	Fluoride	2.075	13.957	3.6923
3	5.32	Chloride	5.912	17.929	14.8405
4	6.61	Nitrite	2.916	11.869	3.6838
5	8.27	Bromide	0.534	1.895	3.5649
6	9.68	Nitrate	3.404	9.811	3.6693
7	12.07	O.Phos	1.303	2.627	3.7712
8	16.51	Sulfate	7.132	12.581	24.7515



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 21:35**	*Run Time:*	**20.00**

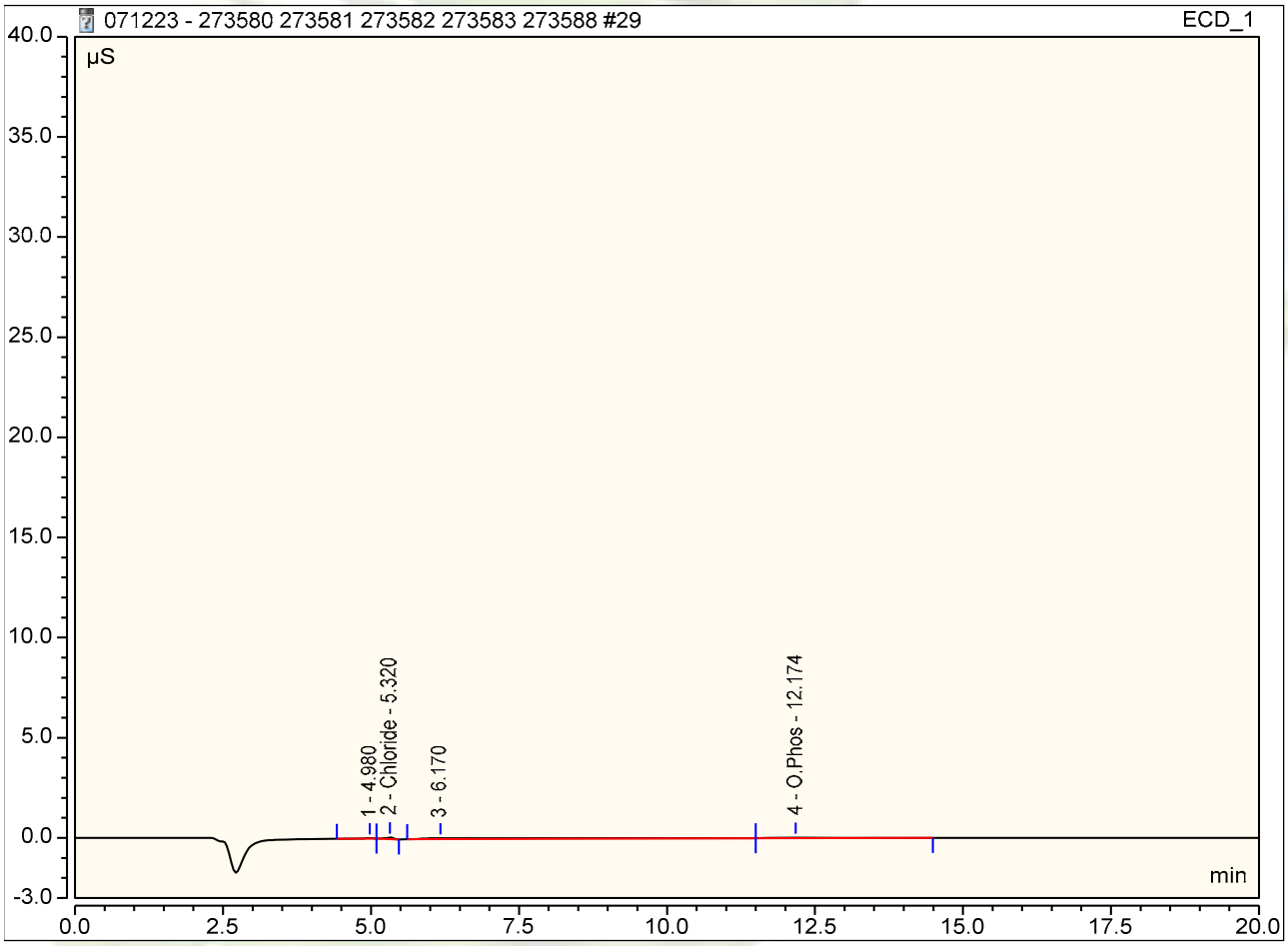
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.81	Fluoride	2.007	13.306	3.5722
2	5.32	Chloride	5.940	18.147	14.9104
3	6.61	Nitrite	3.075	12.523	3.8820
4	8.27	Bromide	0.543	1.949	3.6232
5	9.68	Nitrate	3.306	9.620	3.5657
6	12.07	O.Phos	1.257	2.548	3.6283
7	16.51	Sulfate	7.201	12.713	24.9844



Peak Integration Report

Sample Name:	**MBW-CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 21:58**	*Run Time:*	**20.00**

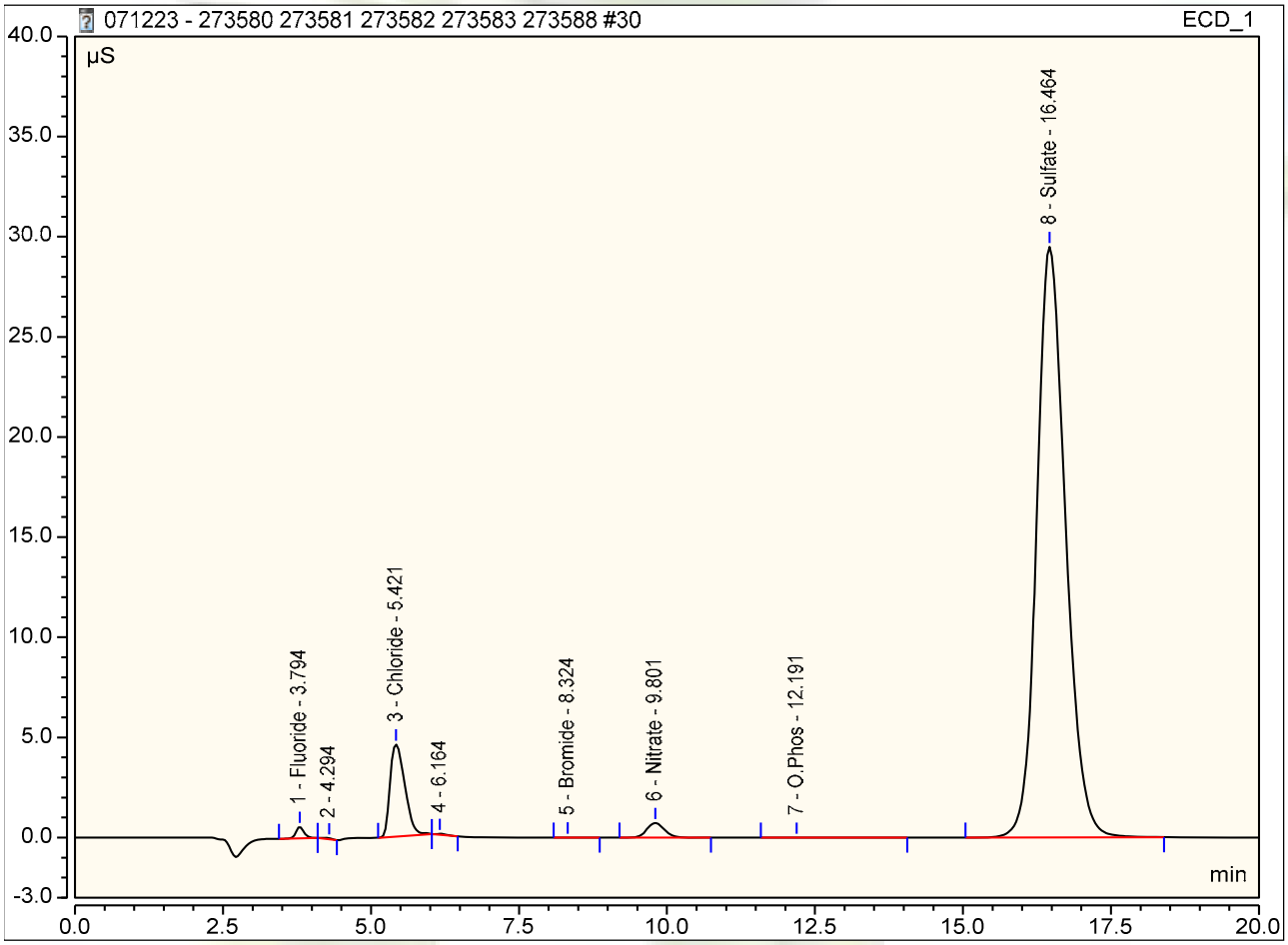
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	5.32	Chloride	0.012	0.080	0.3907
4	12.17	O.Phos	0.027	0.032	n.a.



Peak Integration Report

Sample Name:	**1346821**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 22:21**	*Run Time:*	**20.00**

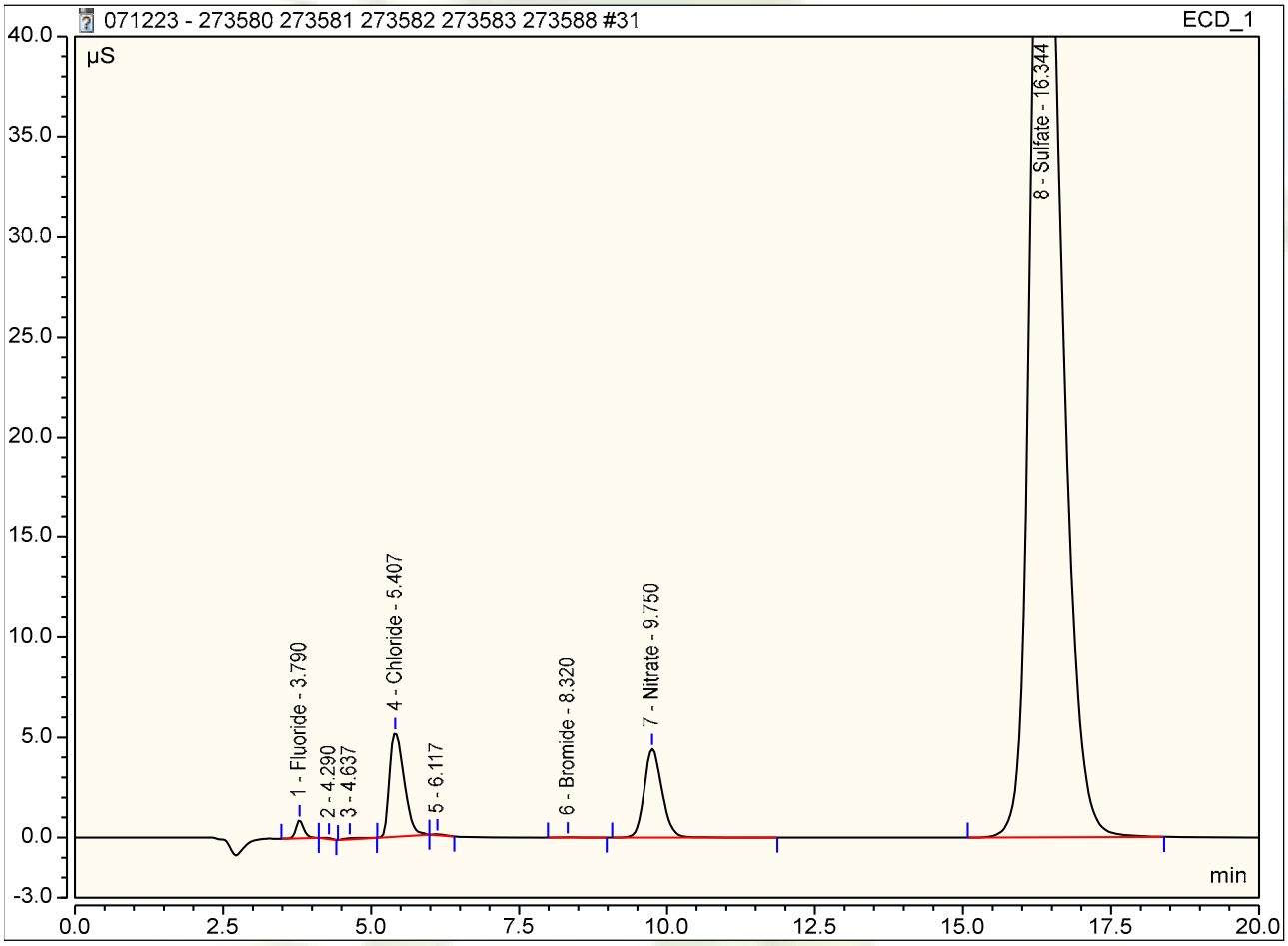
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.79	Fluoride	0.093	0.580	0.1931
3	5.42	Chloride	1.340	4.604	3.6452
5	8.32	Bromide	0.003	0.009	0.0114
6	9.80	Nitrate	0.255	0.736	0.3209
7	12.19	O.Phos	0.010	0.011	n.a.
8	16.46	Sulfate	16.673	29.485	57.0751



Peak Integration Report

Sample Name:	**1346822**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 22:44**	*Run Time:*	**20.00**

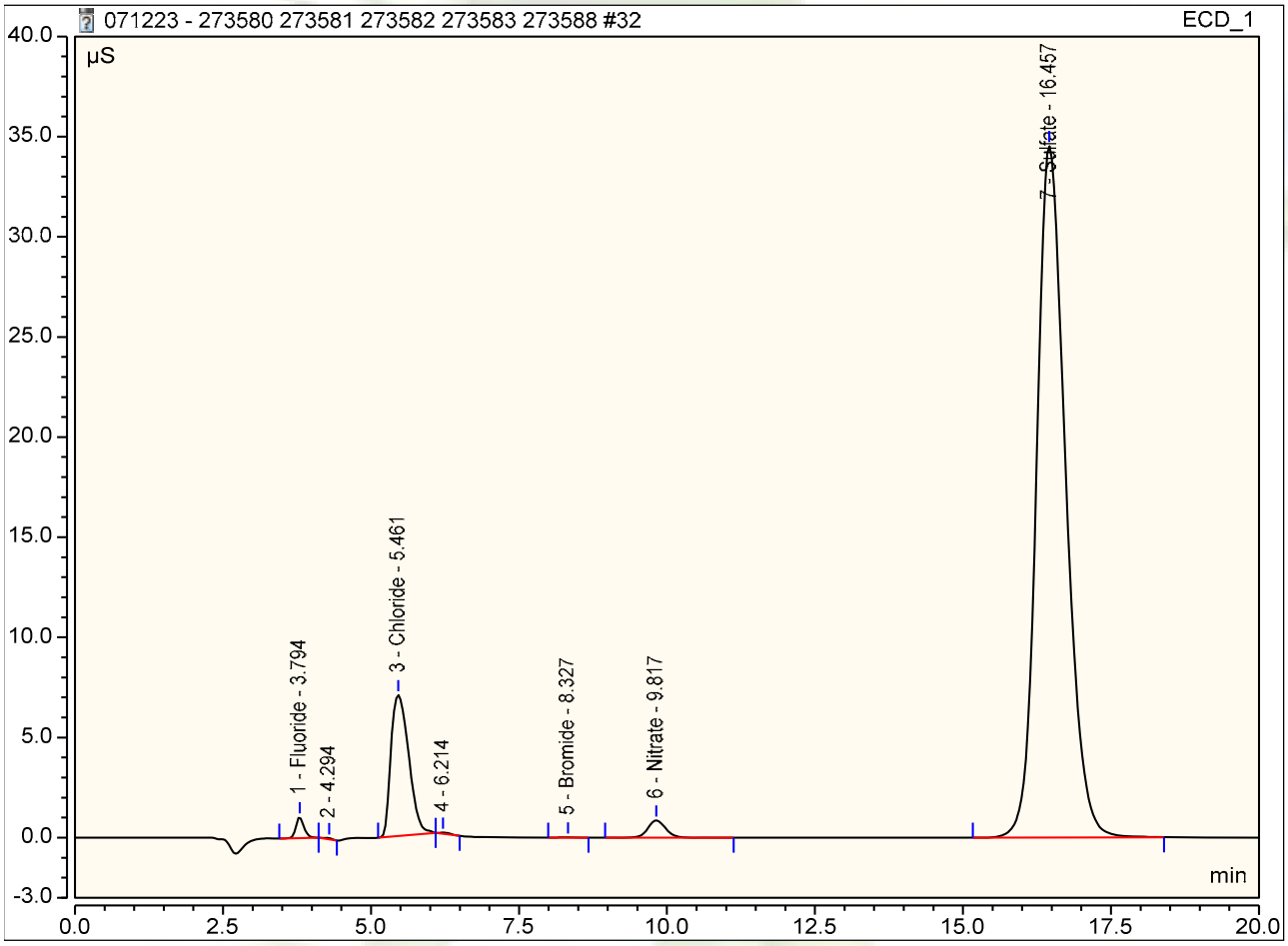
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.79	Fluoride	0.143	0.908	0.2818
4	5.41	Chloride	1.498	5.185	4.0308
6	8.32	Bromide	0.005	0.016	0.0288
7	9.75	Nitrate	1.559	4.437	1.7075
8	16.34	Sulfate	33.559	57.749	114.2857



Peak Integration Report

Sample Name:	**1346823**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 23:07**	*Run Time:*	**20.00**

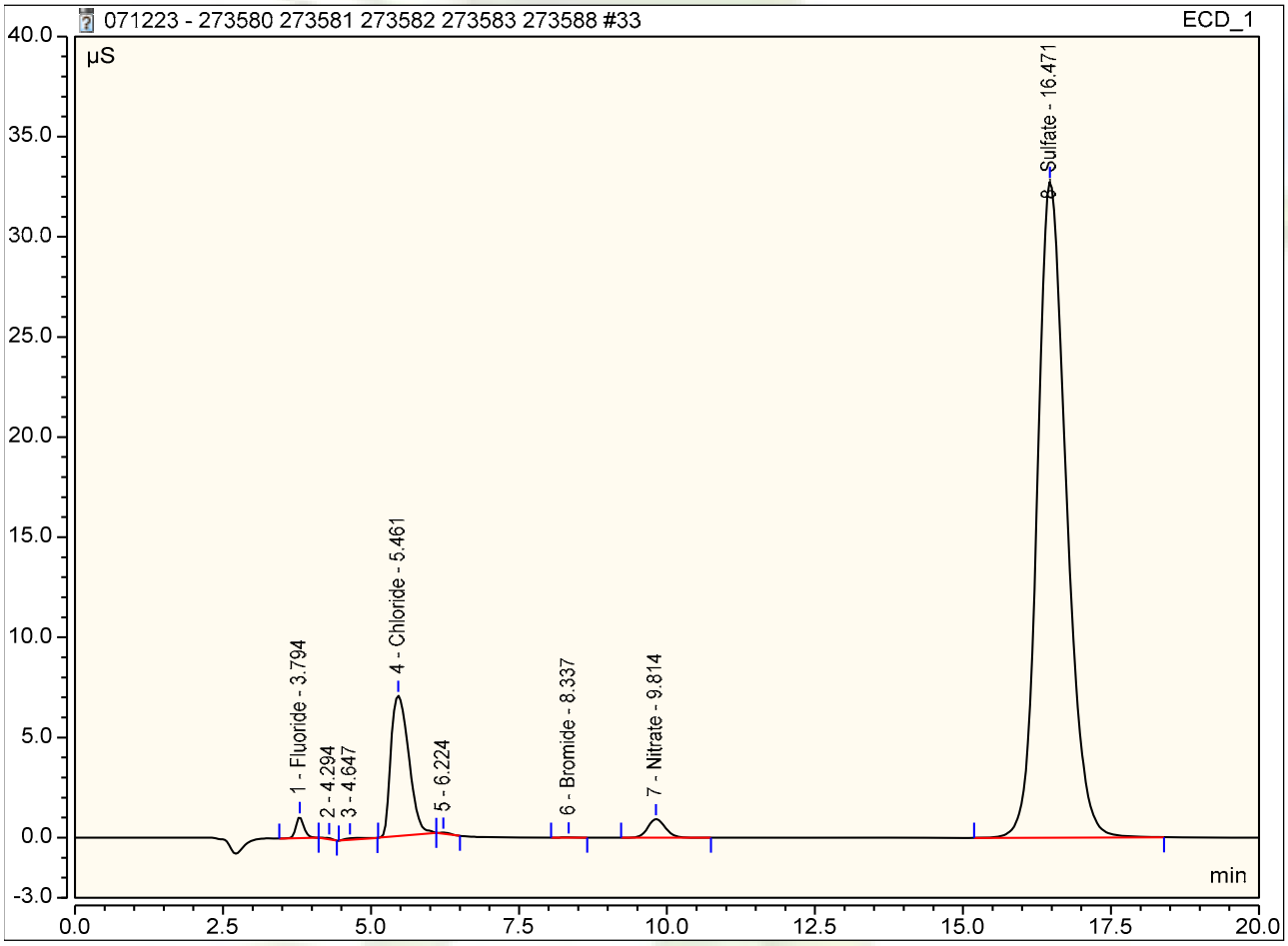
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.79	Fluoride	0.167	1.043	0.3241
3	5.46	Chloride	2.462	7.036	6.3918
5	8.33	Bromide	0.005	0.018	0.0296
6	9.82	Nitrate	0.304	0.860	0.3733
7	16.46	Sulfate	19.603	34.536	67.0032



Peak Integration Report

Sample Name:	**1346824**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 23:29**	*Run Time:*	**20.00**

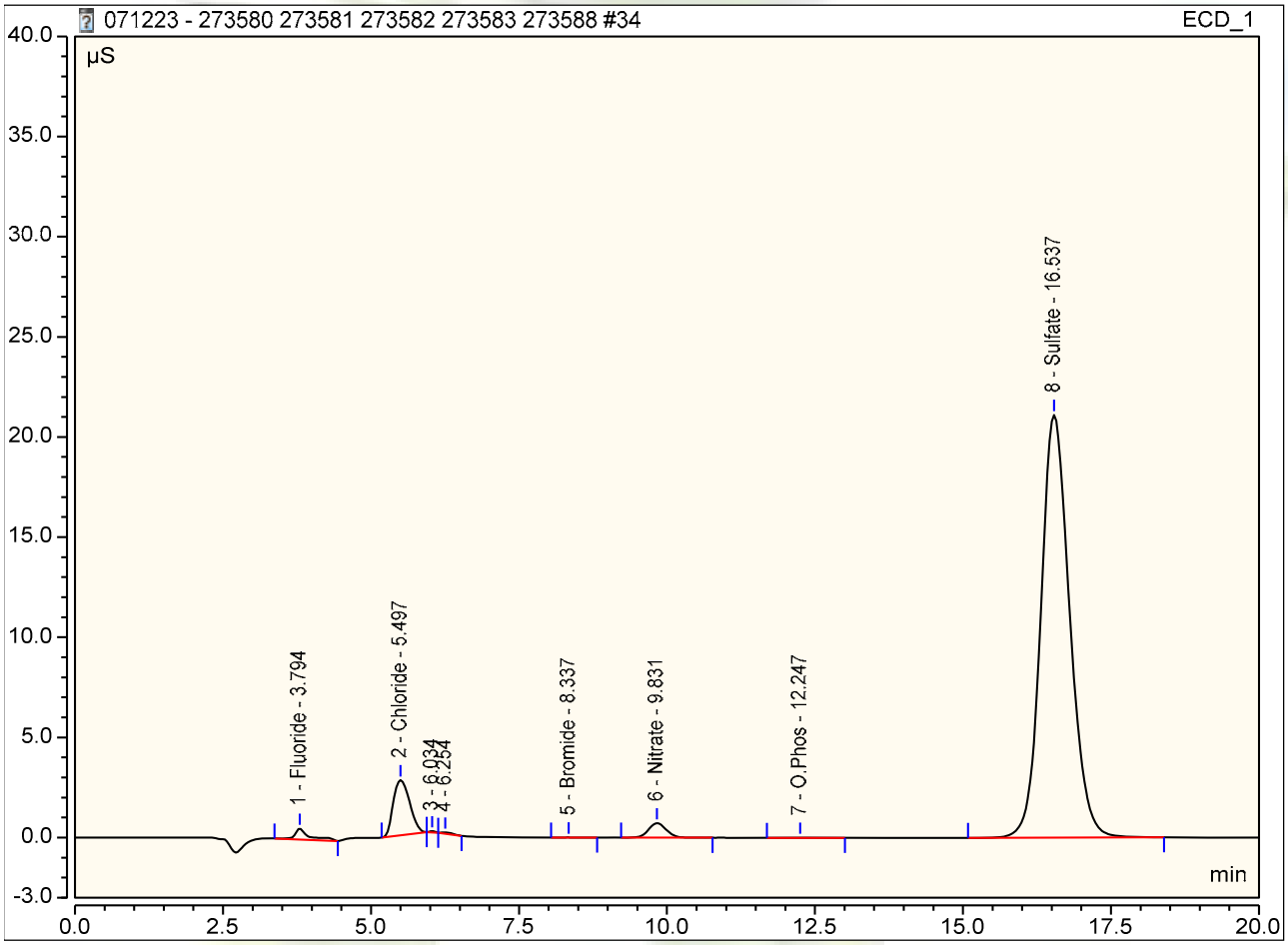
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.79	Fluoride	0.167	1.052	0.3249
4	5.46	Chloride	2.462	7.013	6.3912
6	8.34	Bromide	0.004	0.016	0.0233
7	9.81	Nitrate	0.325	0.933	0.3954
8	16.47	Sulfate	18.534	32.744	63.3807



Peak Integration Report

Sample Name:	**1346825**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**12-Jul-2023 / 23:52**	*Run Time:*	**20.00**

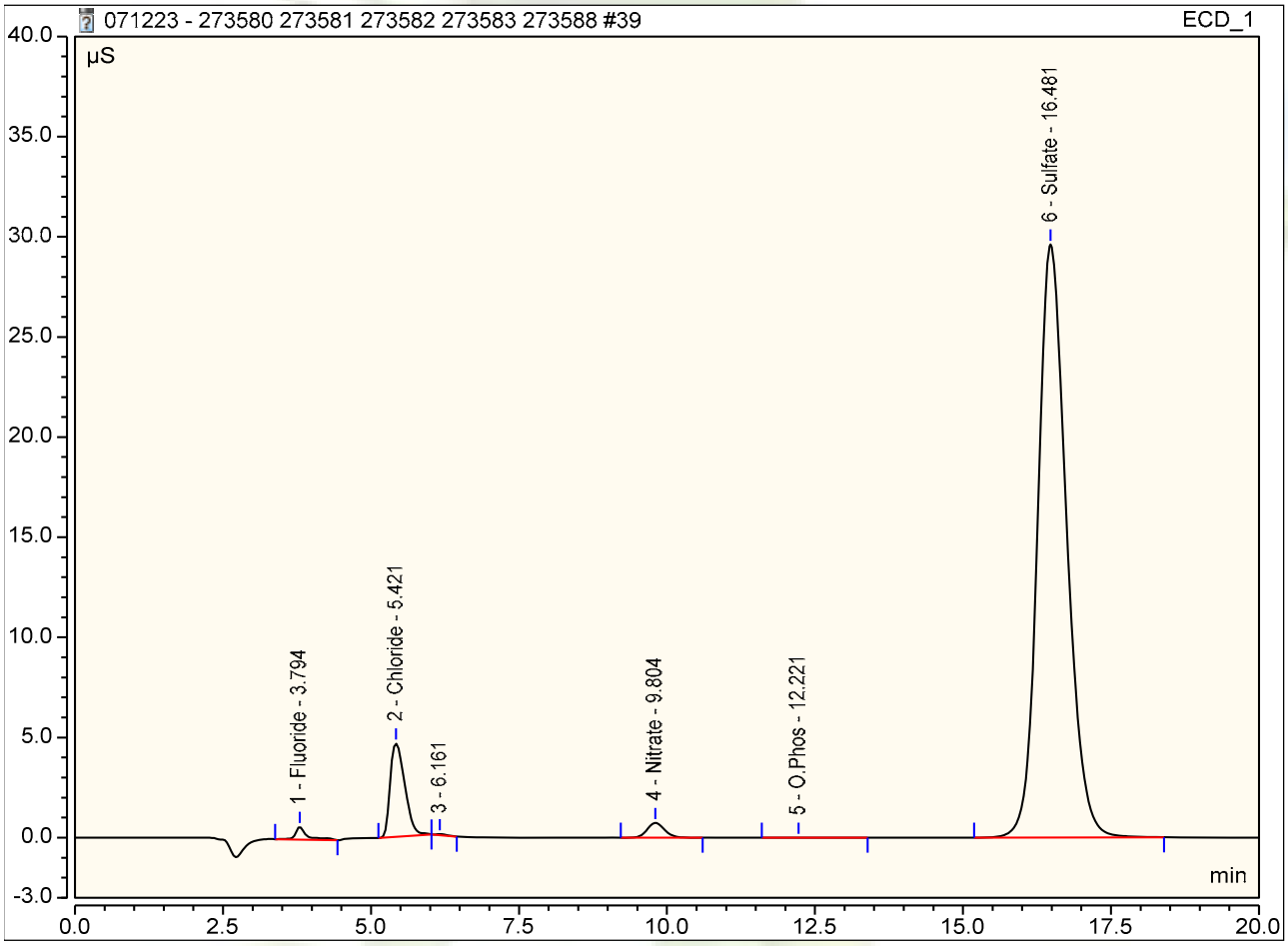
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.79	Fluoride	0.153	0.544	0.3003
2	5.50	Chloride	0.885	2.750	2.5306
5	8.34	Bromide	0.002	0.008	0.0085
6	9.83	Nitrate	0.253	0.728	0.3194
7	12.25	O.Phos	0.006	0.010	n.a.
8	16.54	Sulfate	11.910	21.108	40.9410



Peak Integration Report

Sample Name:	**DUP1346821**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 01:47**	*Run Time:*	**20.00**

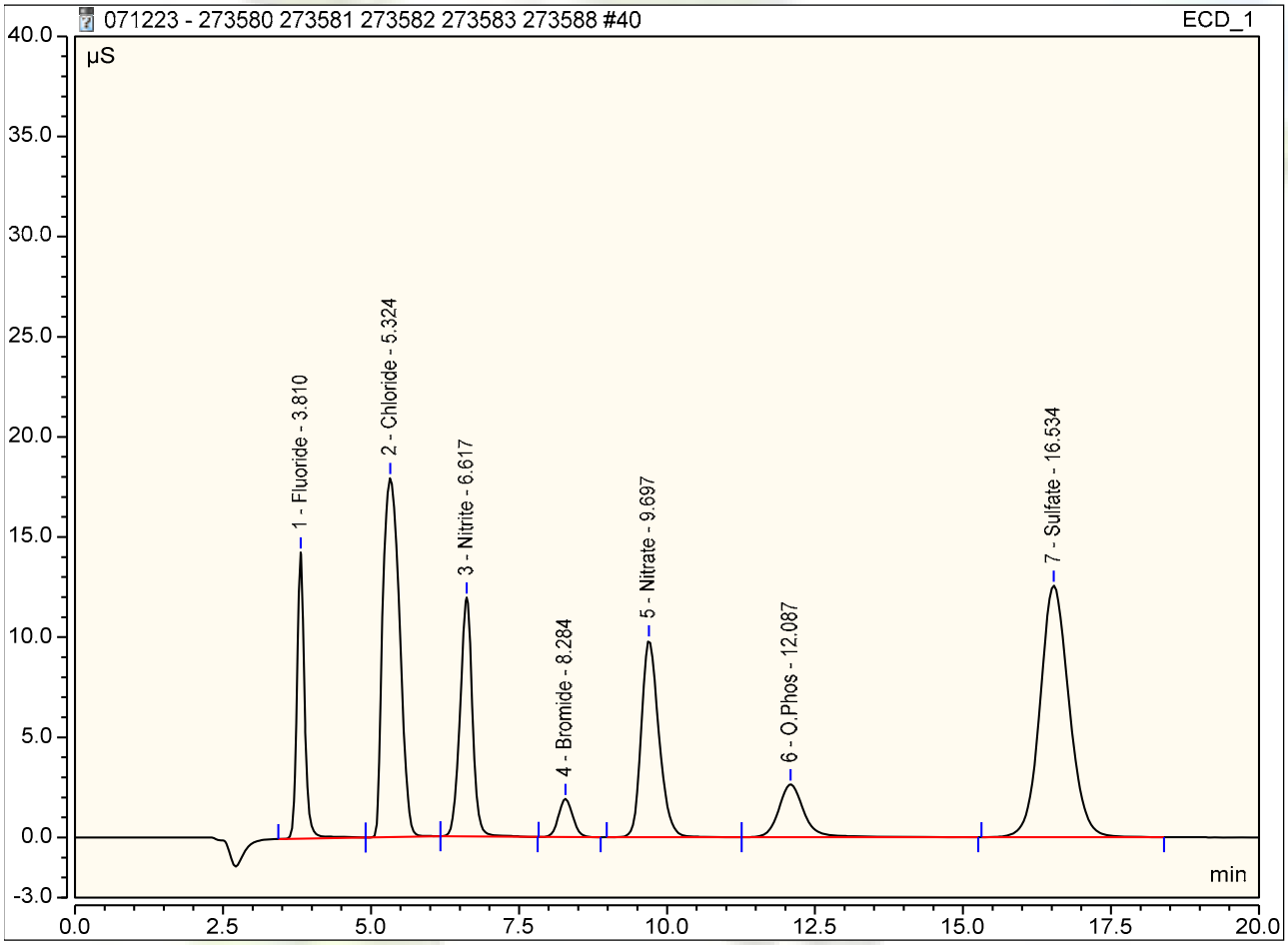
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.79	Fluoride	0.149	0.641	0.2919
2	5.42	Chloride	1.346	4.664	3.6584
4	9.80	Nitrate	0.257	0.745	0.3239
5	12.22	O.Phos	0.007	0.010	n.a.
6	16.48	Sulfate	16.708	29.606	57.1947



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 02:09**	*Run Time:*	**20.00**

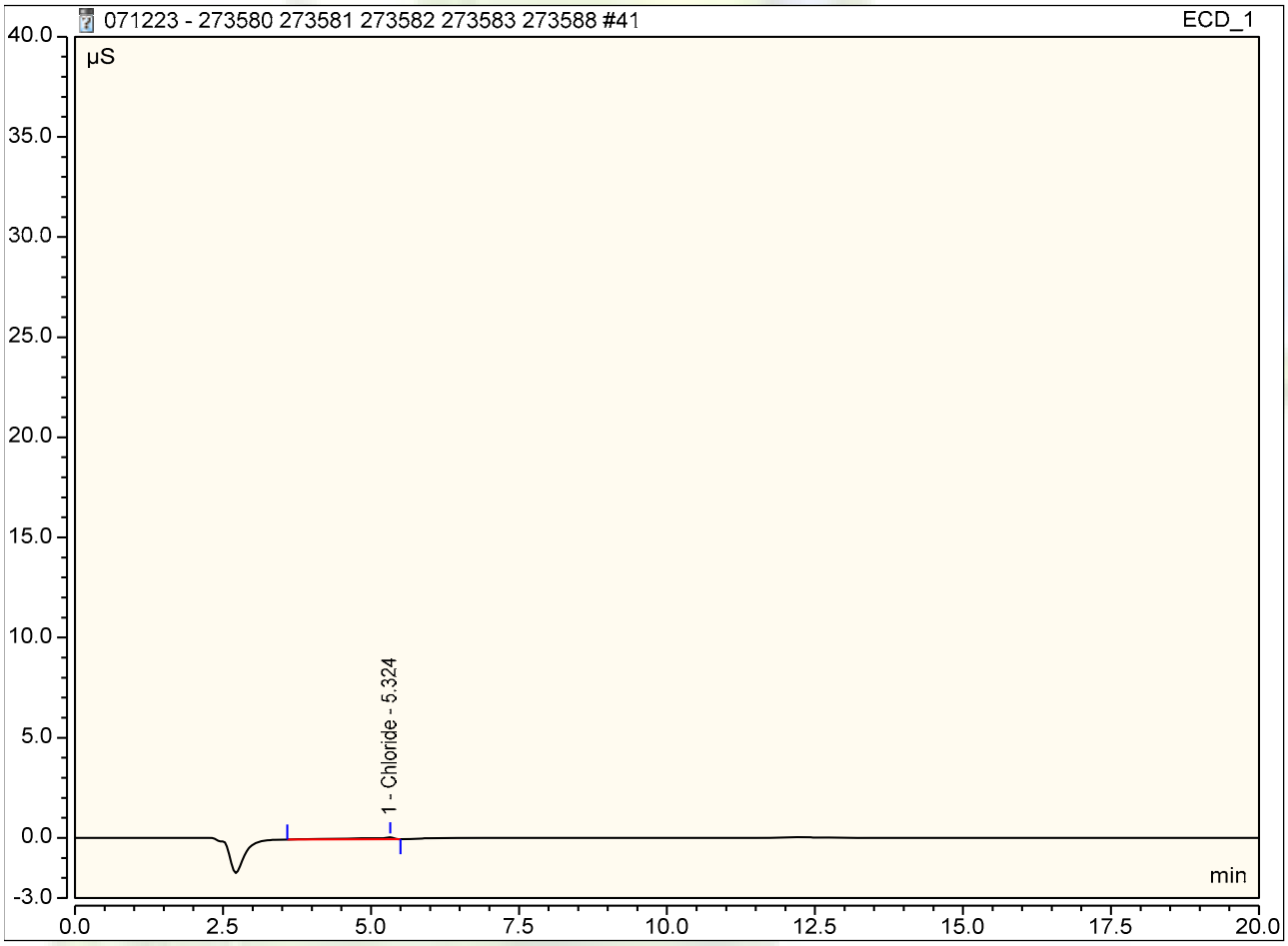
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.81	Fluoride	2.133	14.292	3.7947
2	5.32	Chloride	5.913	17.932	14.8442
3	6.62	Nitrite	2.904	11.942	3.6686
4	8.28	Bromide	0.535	1.913	3.5702
5	9.70	Nitrate	3.405	9.833	3.6709
6	12.09	O.Phos	1.314	2.644	3.8046
7	16.53	Sulfate	7.138	12.556	24.7722



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 02:32**	*Run Time:*	**20.00**

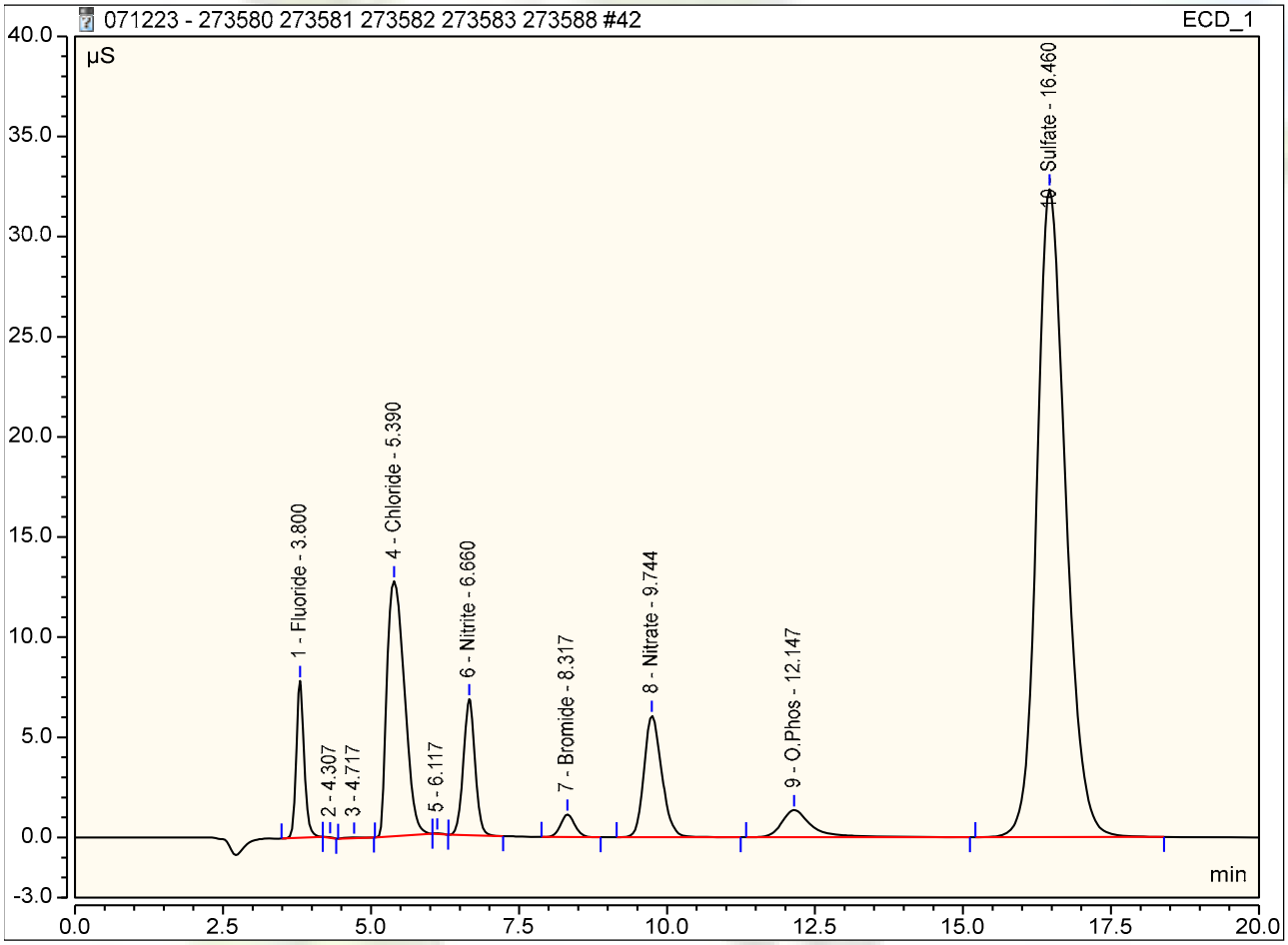
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.32	Chloride	0.069	0.103	0.5322



Peak Integration Report

Sample Name:	**MSW1346821**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 02:55**	*Run Time:*	**20.00**

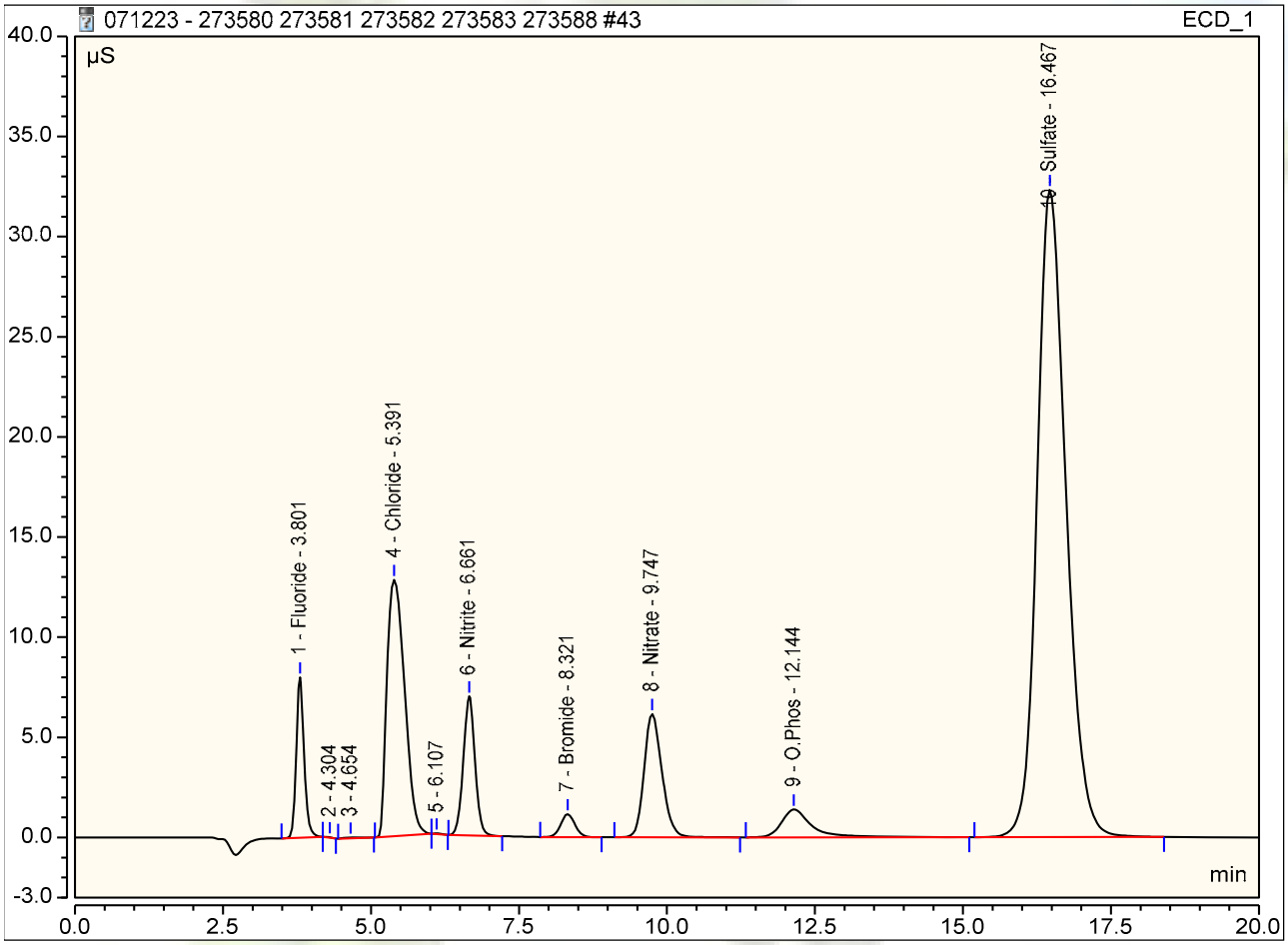
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.80	Fluoride	1.198	7.828	2.1442
4	5.39	Chloride	4.382	12.729	11.0954
6	6.66	Nitrite	1.554	6.795	1.9792
7	8.32	Bromide	0.316	1.128	2.1072
8	9.74	Nitrate	2.122	6.068	2.3066
9	12.15	O.Phos	0.814	1.355	2.2340
10	16.46	Sulfate	18.282	32.342	62.5294



Peak Integration Report

Sample Name:	**MSDW1346821**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 03:18**	*Run Time:*	**20.00**

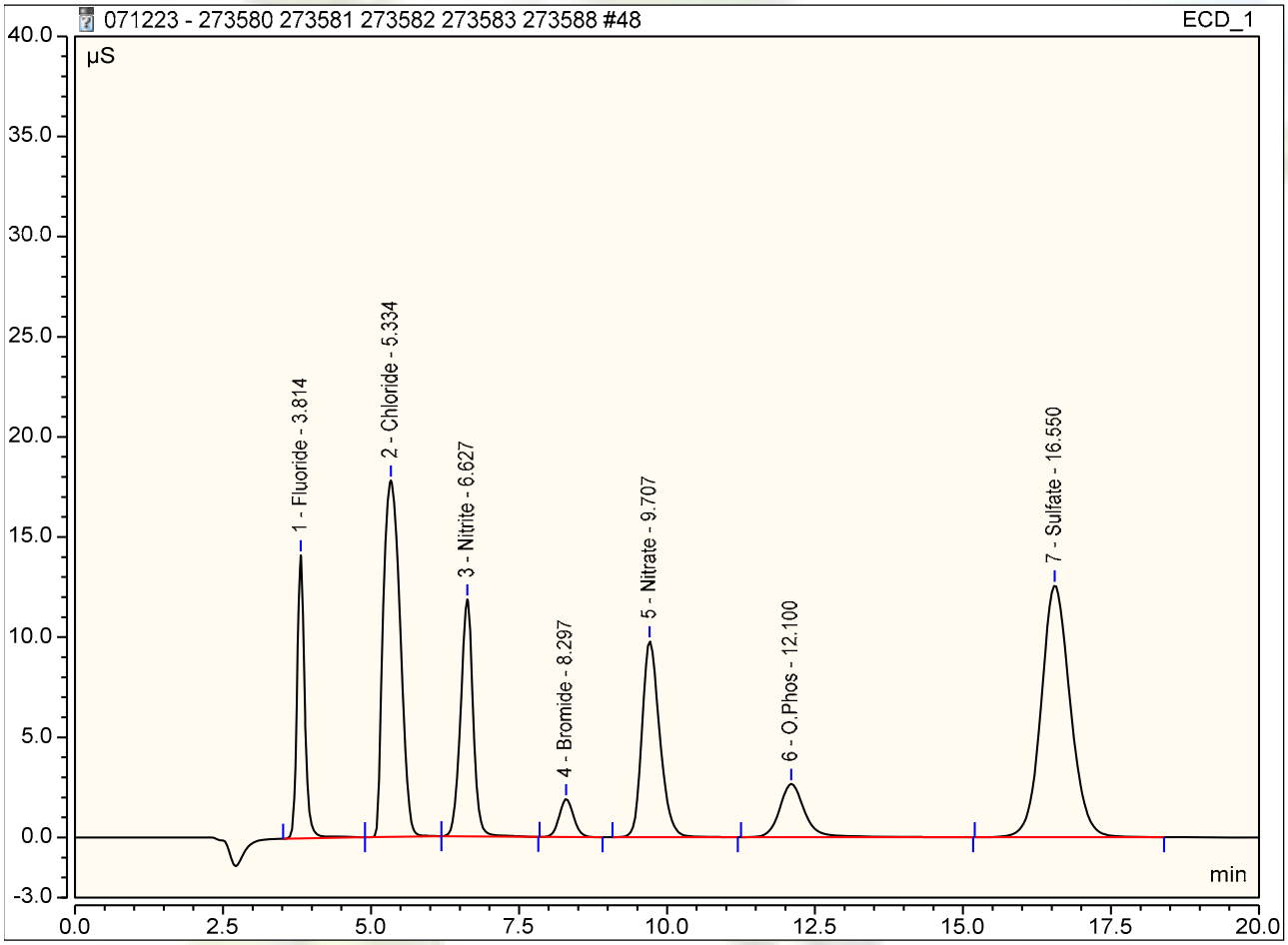
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.80	Fluoride	1.223	8.009	2.1888
4	5.39	Chloride	4.444	12.796	11.2474
6	6.66	Nitrite	1.590	6.940	2.0243
7	8.32	Bromide	0.324	1.148	2.1610
8	9.75	Nitrate	2.160	6.159	2.3469
9	12.14	O.Phos	0.835	1.389	2.2996
10	16.47	Sulfate	18.308	32.310	62.6162



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 05:12**	*Run Time:*	**20.00**

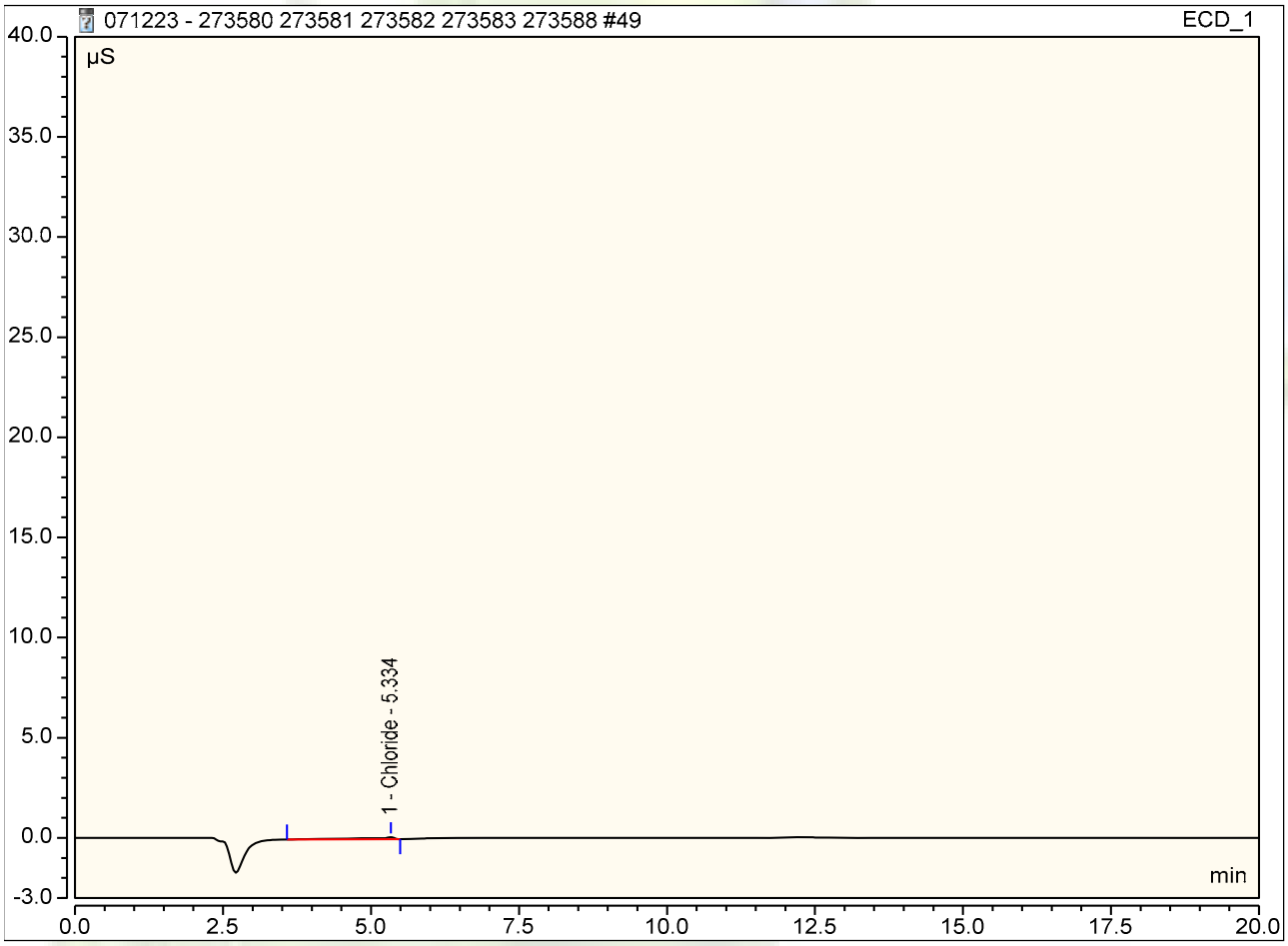
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.81	Fluoride	2.129	14.145	3.7880
2	5.33	Chloride	5.916	17.799	14.8513
3	6.63	Nitrite	2.909	11.831	3.6748
4	8.30	Bromide	0.535	1.896	3.5677
5	9.71	Nitrate	3.408	9.787	3.6739
6	12.10	O.Phos	1.320	2.660	3.8243
7	16.55	Sulfate	7.143	12.569	24.7902



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 05:35**	*Run Time:*	**20.00**

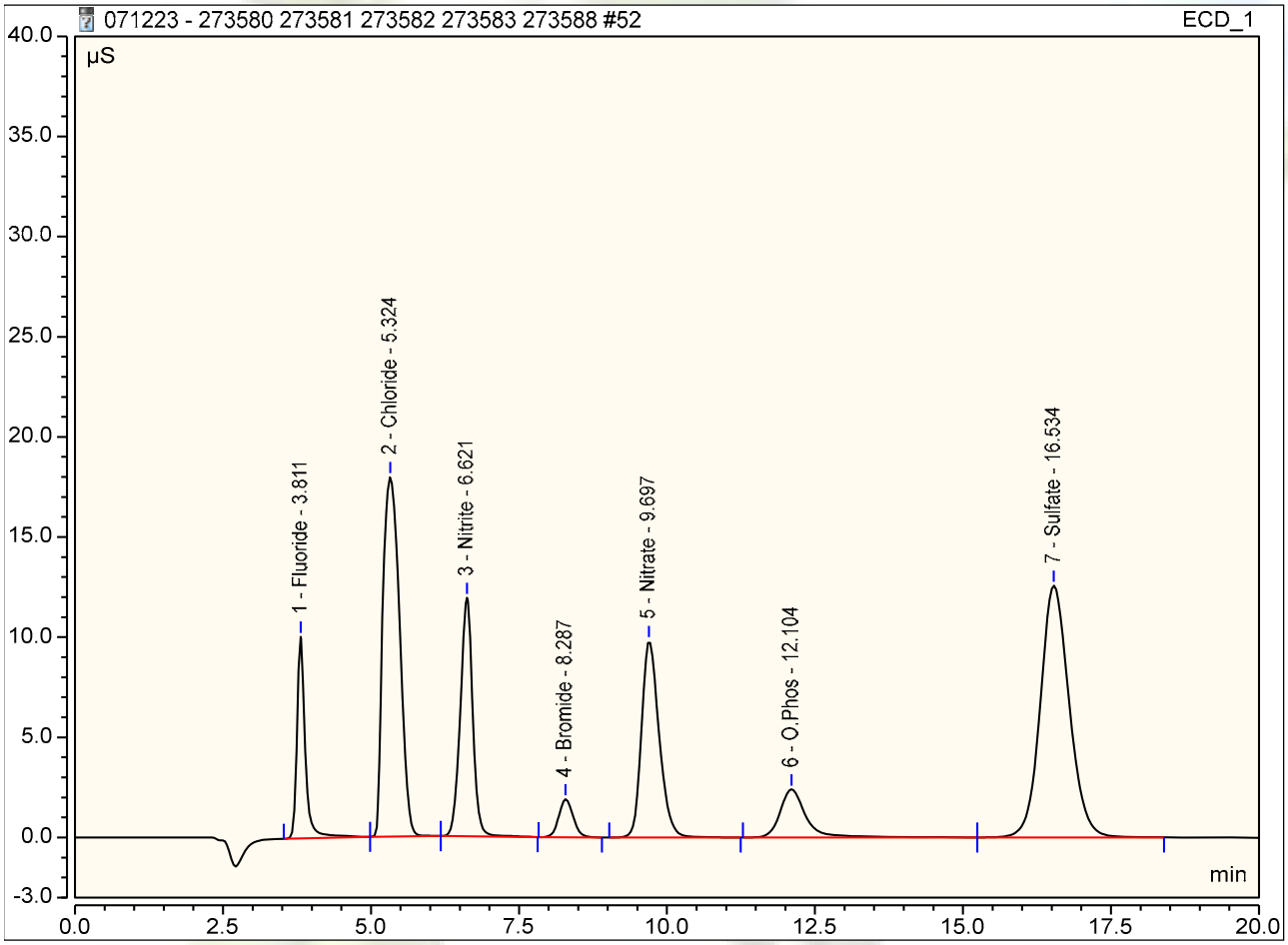
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.33	Chloride	0.068	0.102	0.5299



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 07:15**	*Run Time:*	**20.00**

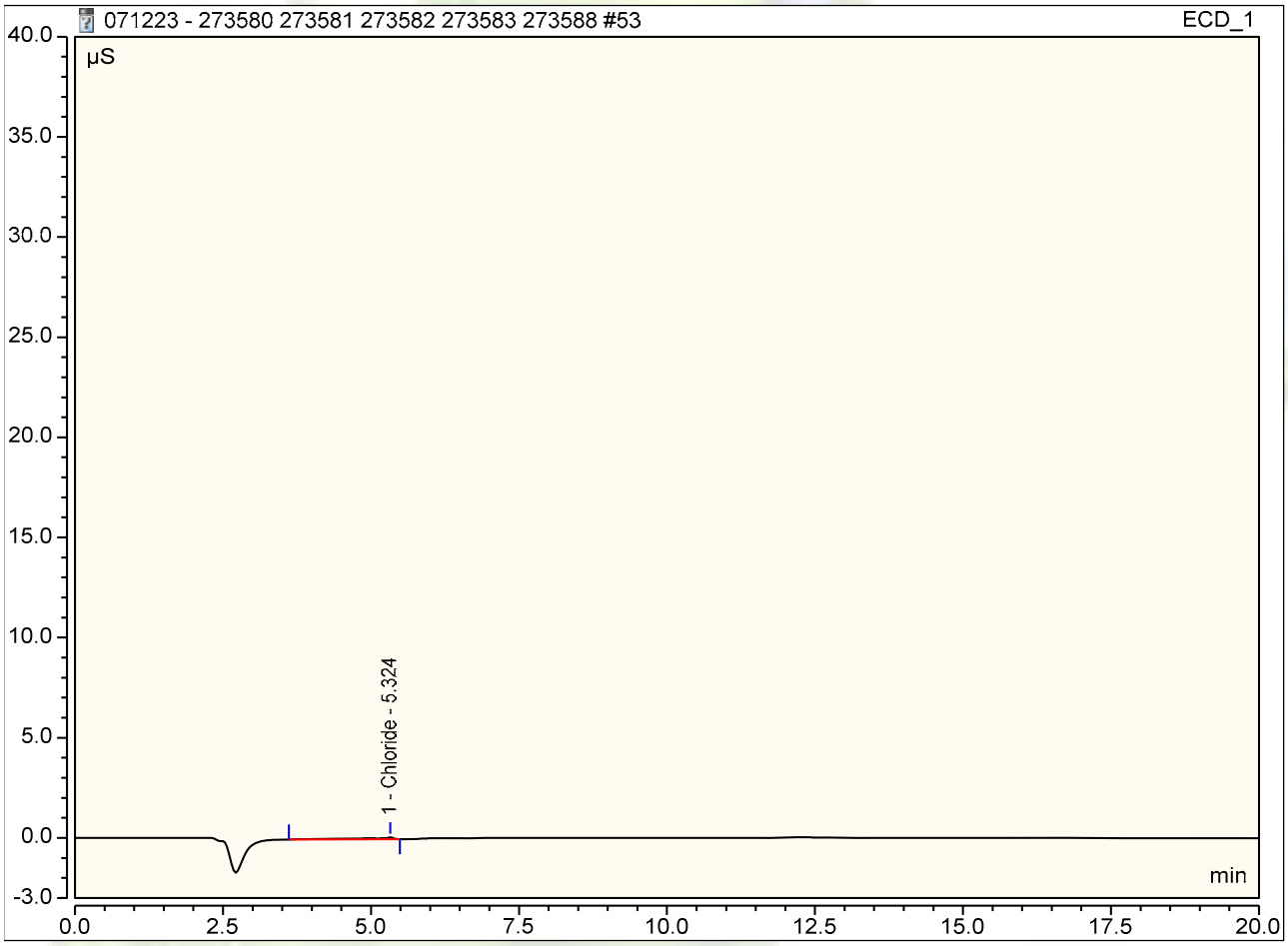
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.81	Fluoride	1.619	10.078	2.8871
2	5.32	Chloride	5.908	17.953	14.8319
3	6.62	Nitrite	2.905	11.916	3.6700
4	8.29	Bromide	0.533	1.906	3.5591
5	9.70	Nitrate	3.398	9.811	3.6633
6	12.10	O.Phos	1.223	2.405	3.5203
7	16.53	Sulfate	7.111	12.568	24.6791



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 07:38**	*Run Time:*	**20.00**

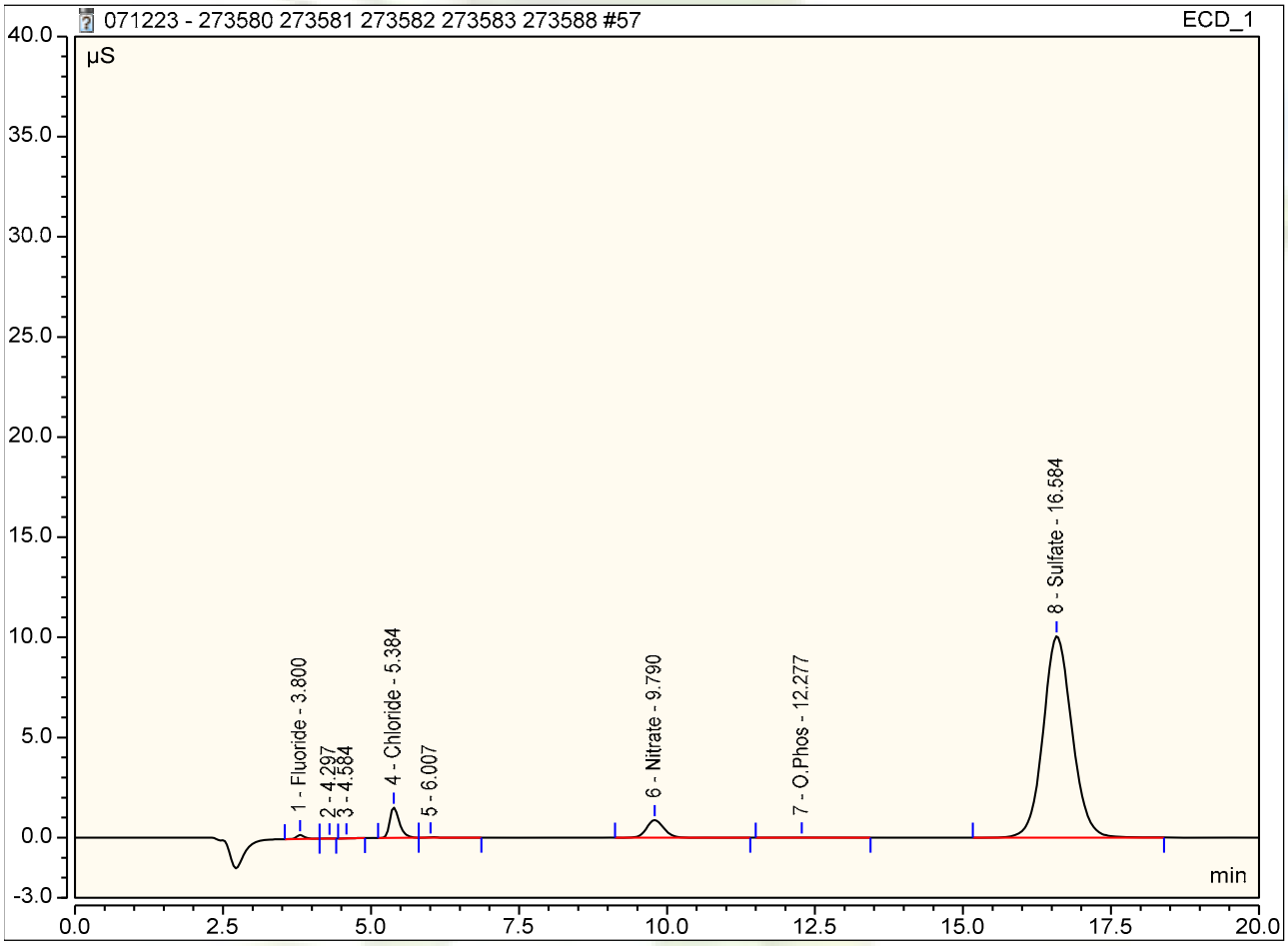
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.32	Chloride	0.067	0.096	0.5267



Peak Integration Report

Sample Name:	**1346822X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 09:10**	*Run Time:*	**20.00**

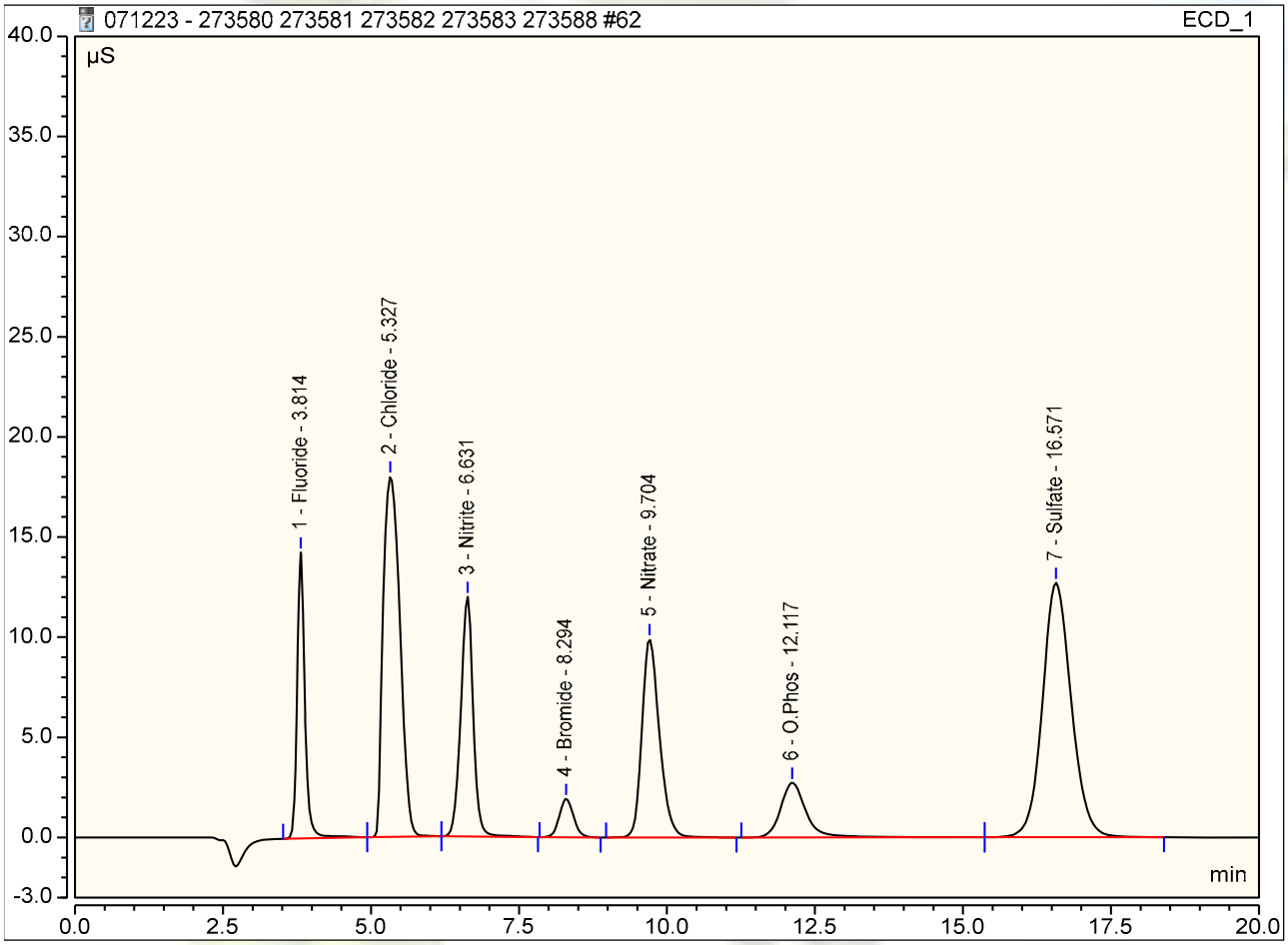
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.80	Fluoride	0.028	0.189	0.0799
4	5.38	Chloride	0.292	1.519	1.0774
6	9.79	Nitrate	0.305	0.887	0.3744
7	12.28	O.Phos	0.015	0.020	n.a.
8	16.58	Sulfate	5.686	10.059	19.8534



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 11:04**	*Run Time:*	**20.00**

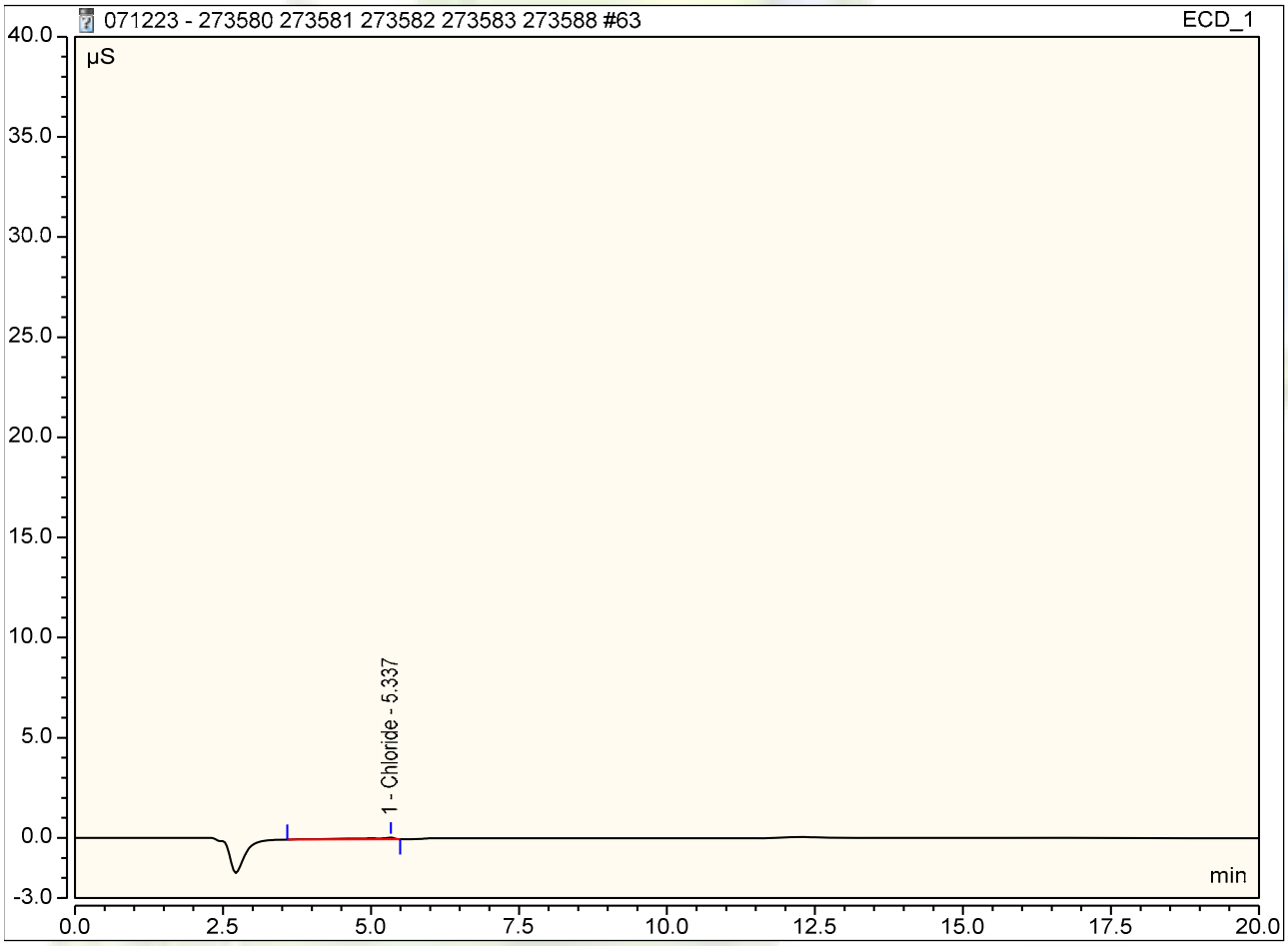
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.81	Fluoride	2.165	14.283	3.8520
2	5.33	Chloride	5.916	18.003	14.8508
3	6.63	Nitrite	2.914	11.969	3.6809
4	8.29	Bromide	0.535	1.922	3.5681
5	9.70	Nitrate	3.403	9.912	3.6684
6	12.12	O.Phos	1.377	2.738	4.0036
7	16.57	Sulfate	7.187	12.709	24.9381

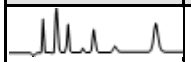
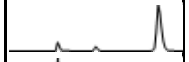
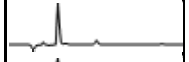
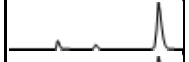
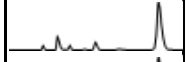
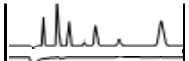


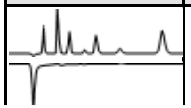
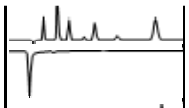
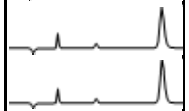
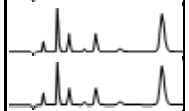
Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 11:27**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.34	Chloride	0.067	0.097	0.5265



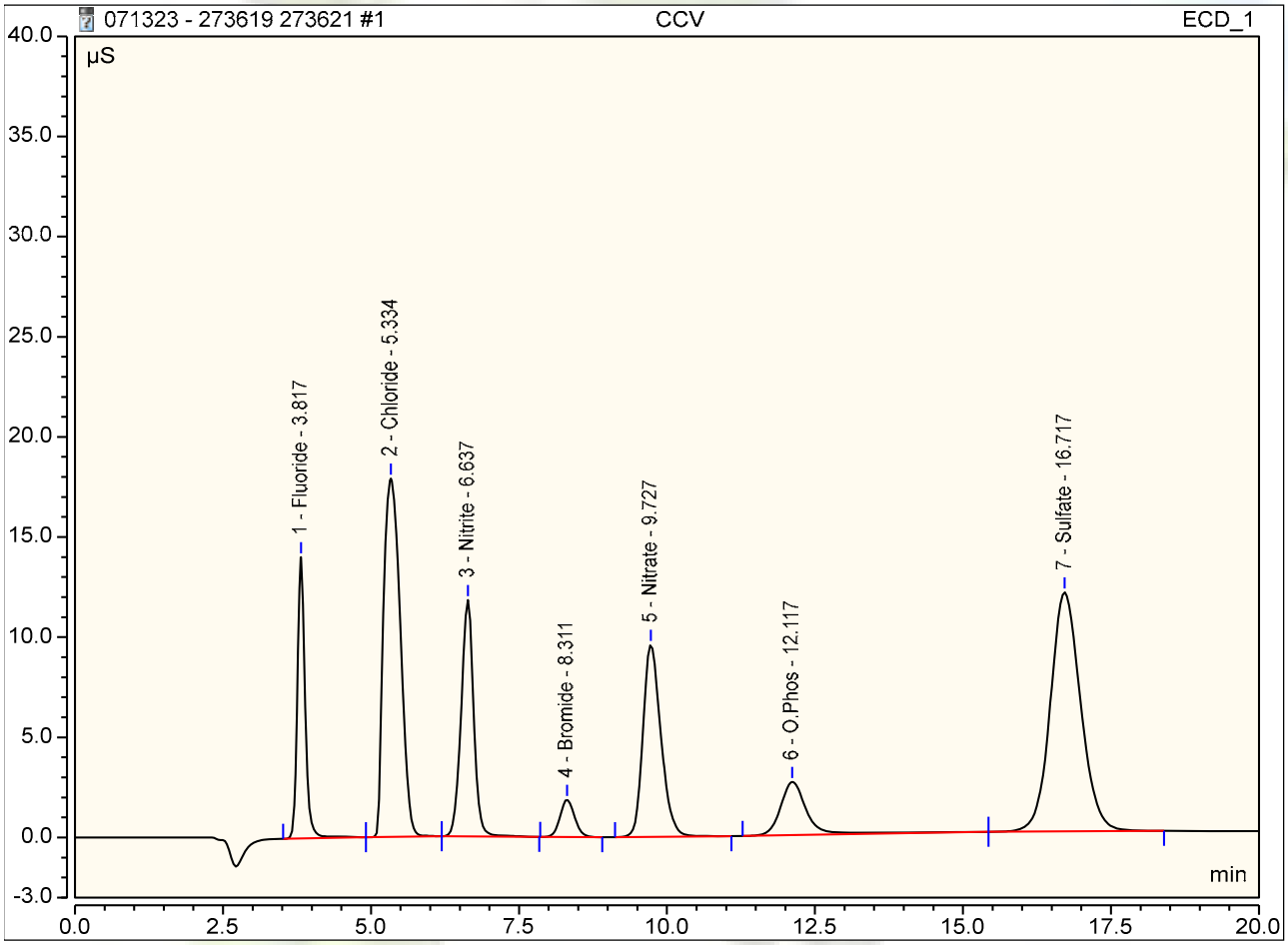
ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		1	5000	Anions	IC4750A	Finished
	LCSW	1.0000	Unknown		2	5000	Anions	IC4750A	Finished
	MBW	1.0000	Unknown		3	5000	Anions	IC4750A	Finished
	1347302	1.0000	Unknown		4	5000	Anions	IC4750A	Finished
	1347303	1.0000	Unknown		5	5000	Anions	IC4750A	Finished
	1347304	1.0000	Unknown		6	5000	Anions	IC4750A	Finished
	1347305	1.0000	Unknown		7	5000	Anions	IC4750A	Finished
	DUP1347302	1.0000	Unknown		8	5000	Anions	IC4750A	Finished
	MSW1347302	1.0000	Unknown		9	5000	Anions	IC4750A	Finished
	MSDW1347302	1.0000	Unknown		10	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		14	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		15	5000	Anions	IC4750A	Finished

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		23	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		24	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		27	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		28	5000	Anions	IC4750A	Finished
	1347302X5	1.0000	Unknown		29	5000	Anions	IC4750A	Finished
	DUP1347302X5	1.0000	Unknown		30	5000	Anions	IC4750A	Finished
	MSW1347302X5	1.0000	Unknown		31	5000	Anions	IC4750A	Finished
	MSDW1347302X5	1.0000	Unknown		32	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		33	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		34	5000	Anions	IC4750A	Finished

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 12:25**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.82	Fluoride	2.123	14.053	3.7781
2	5.33	Chloride	5.901	17.898	14.8148
3	6.64	Nitrite	2.917	11.805	3.6844
4	8.31	Bromide	0.532	1.863	3.5528
5	9.73	Nitrate	3.381	9.586	3.6448
6	12.12	O.Phos	1.389	2.658	4.0417
7	16.72	Sulfate	7.101	11.942	24.6469

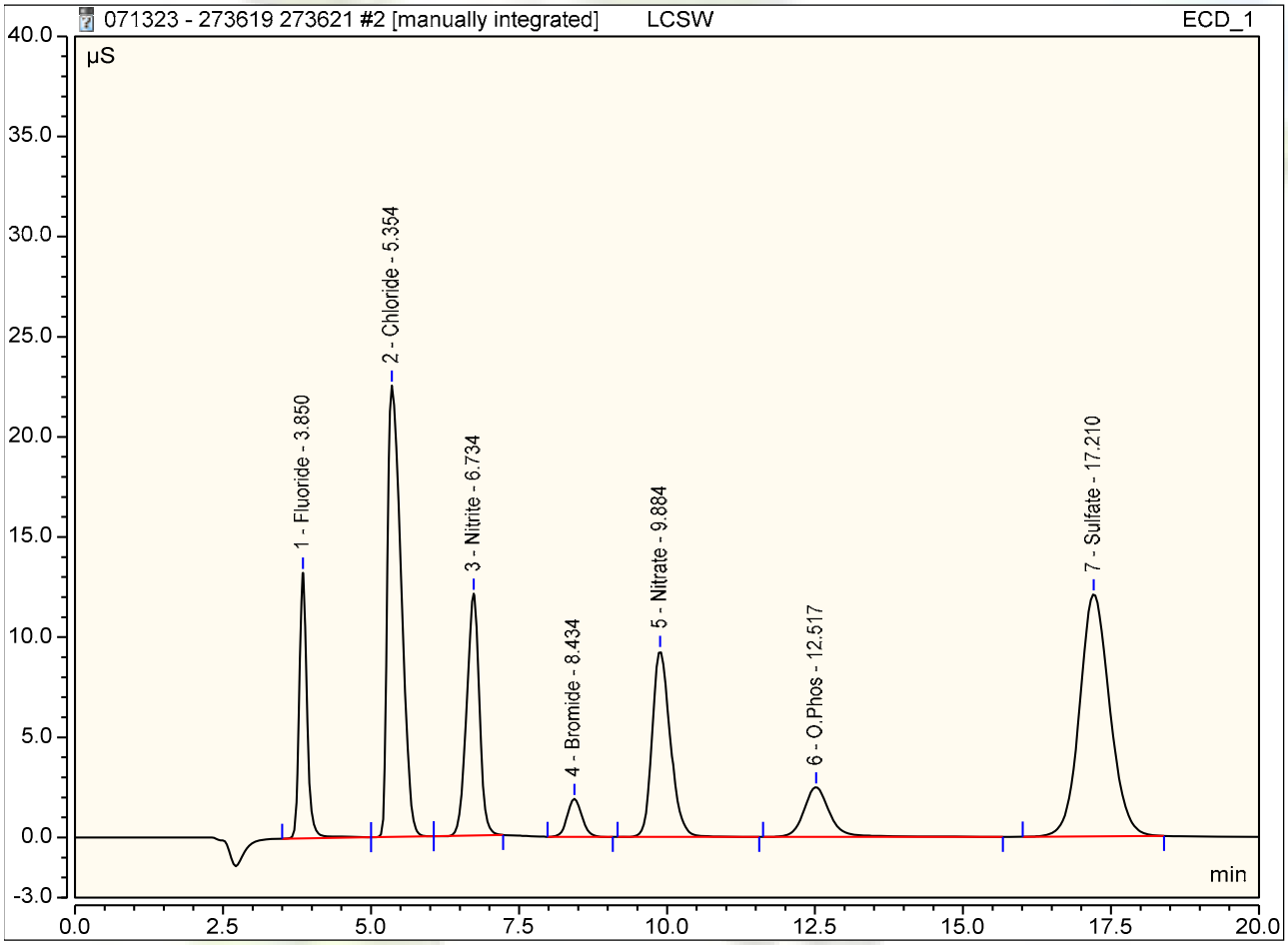


TMG 07/17/2023

Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 12:48**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	2.008	13.264	3.5741
2	5.35	Chloride	6.055	22.540	15.1921
3	6.73	Nitrite	3.015	12.086	3.8068
4	8.43	Bromide	0.545	1.897	3.6352
5	9.88	Nitrate	3.310	9.296	3.5696
6	12.52	O.Phos	1.264	2.480	3.6500
7	17.21	Sulfate	7.142	12.088	24.7838

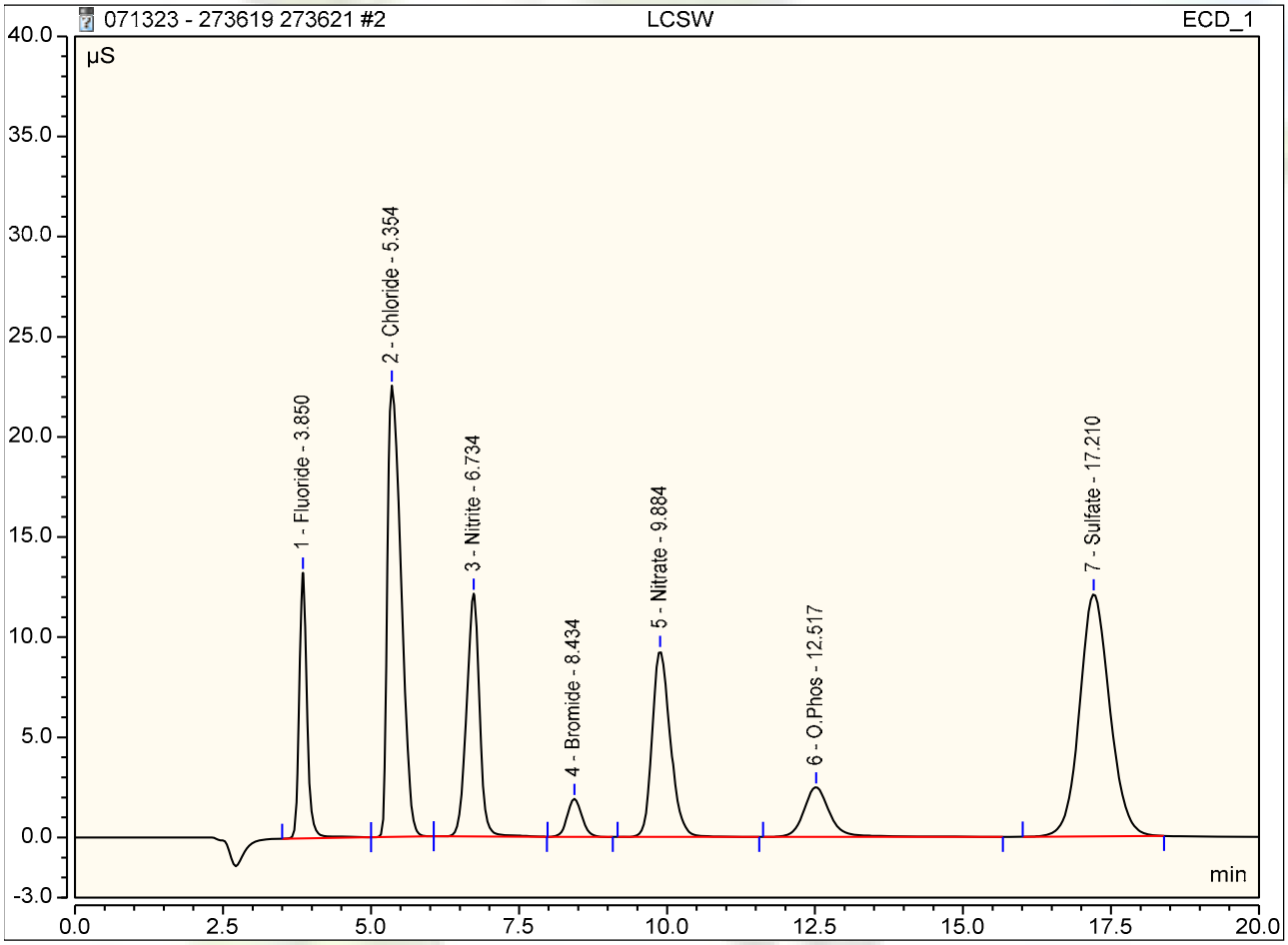


RD 07/18/2023

Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 12:48**	*Run Time:*	**20.00**

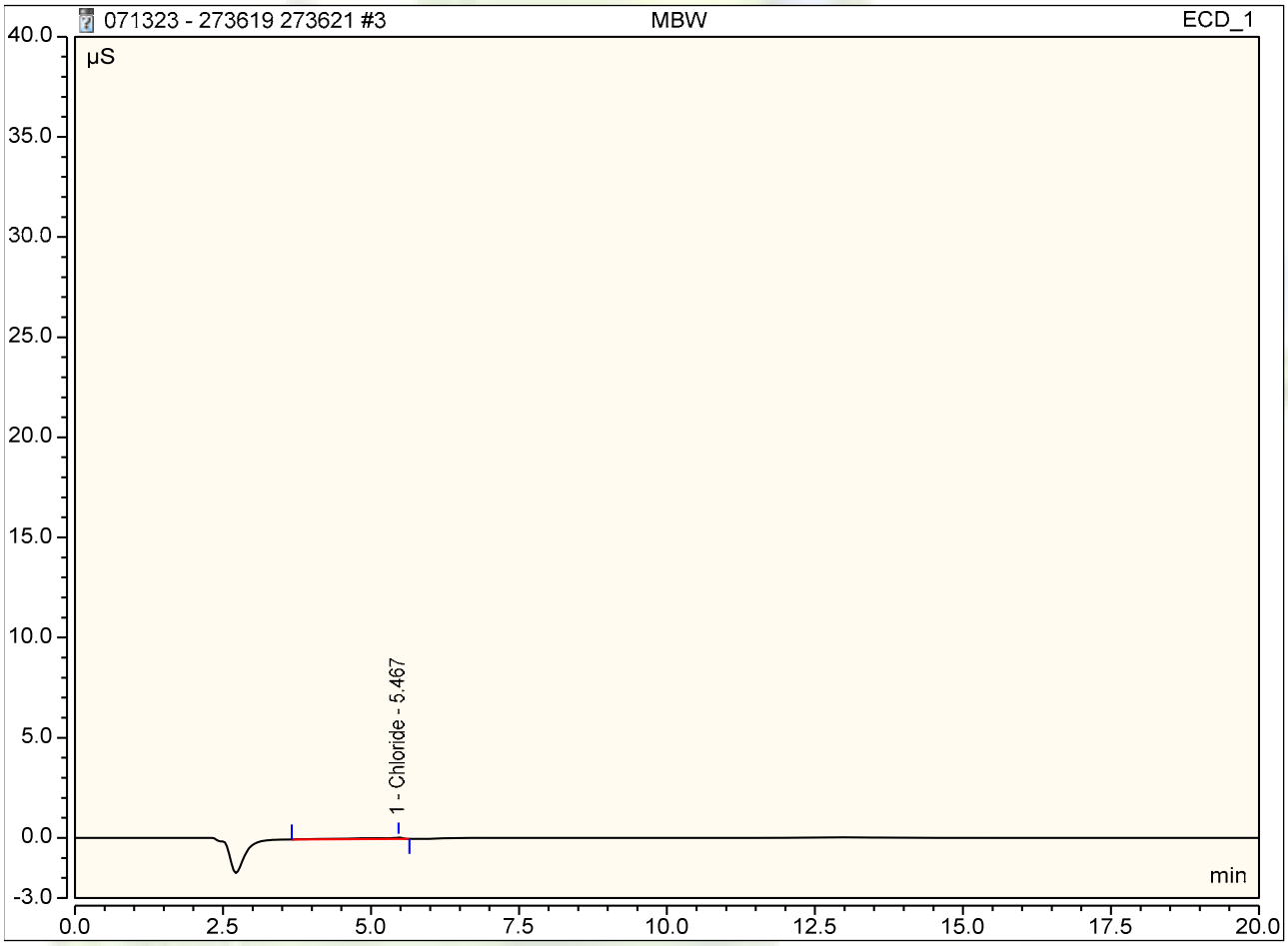
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	2.008	13.264	3.5741
2	5.35	Chloride	6.055	22.540	15.1921
3	6.73	Nitrite	3.086	12.132	3.8965
4	8.43	Bromide	0.545	1.897	3.6352
5	9.88	Nitrate	3.310	9.296	3.5696
6	12.52	O.Phos	1.264	2.480	3.6500
7	17.21	Sulfate	7.142	12.088	24.7838



Peak Integration Report

Sample Name:	**MBW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 13:11**	*Run Time:*	**20.00**

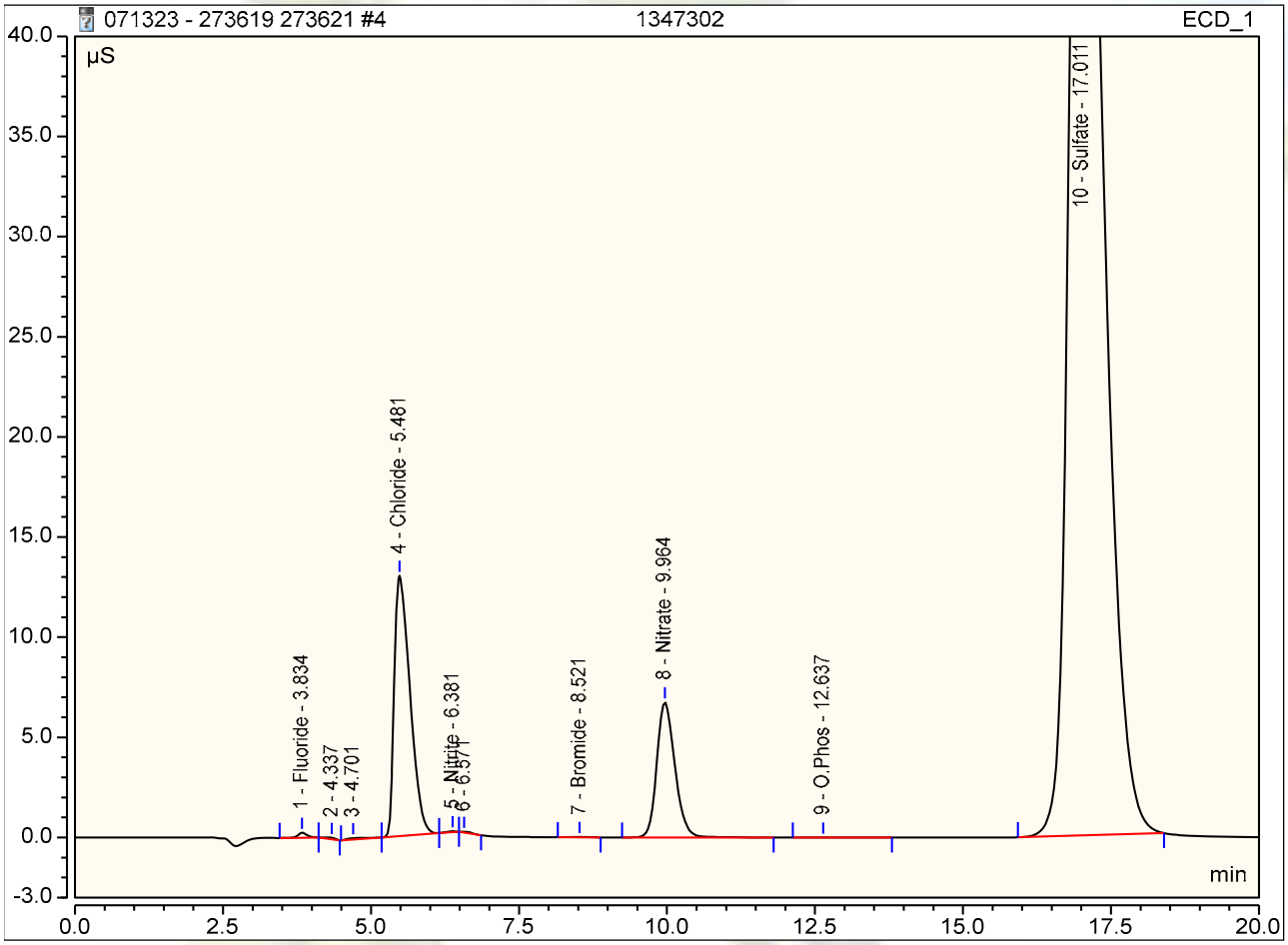
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.47	Chloride	0.056	0.068	0.4988



Peak Integration Report

Sample Name:	**1347302**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 13:33**	*Run Time:*	**20.00**

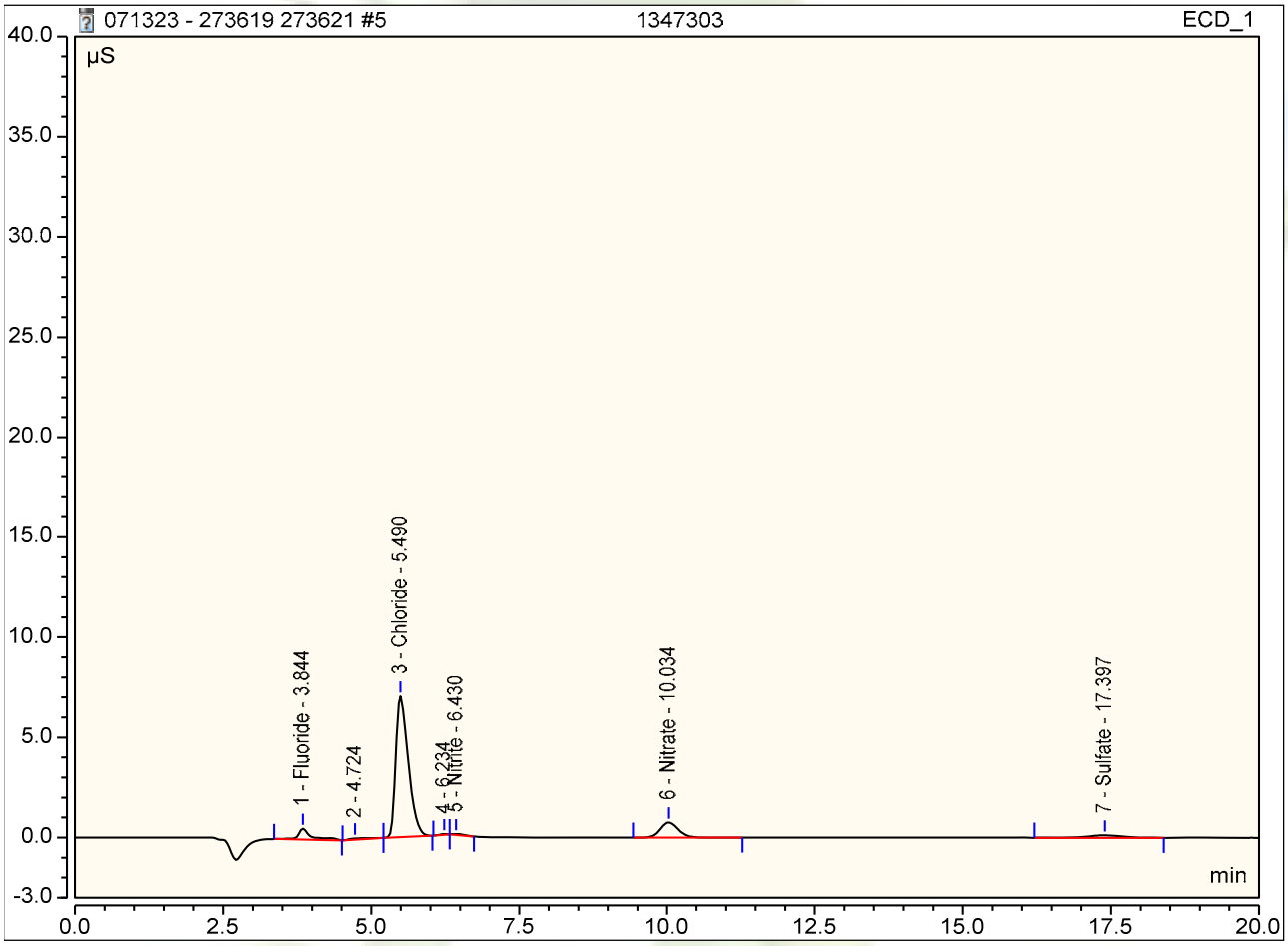
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.83	Fluoride	0.043	0.252	0.1059
4	5.48	Chloride	4.016	13.003	10.1973
5	6.38	Nitrite	0.009	0.056	0.0450
7	8.52	Bromide	0.005	0.017	0.0261
8	9.96	Nitrate	2.392	6.752	2.5938
9	12.64	O.Phos	0.005	0.007	n.a.
10	17.01	Sulfate	43.317	70.218	147.3470



Peak Integration Report

Sample Name:	**1347303**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 13:56**	*Run Time:*	**20.00**

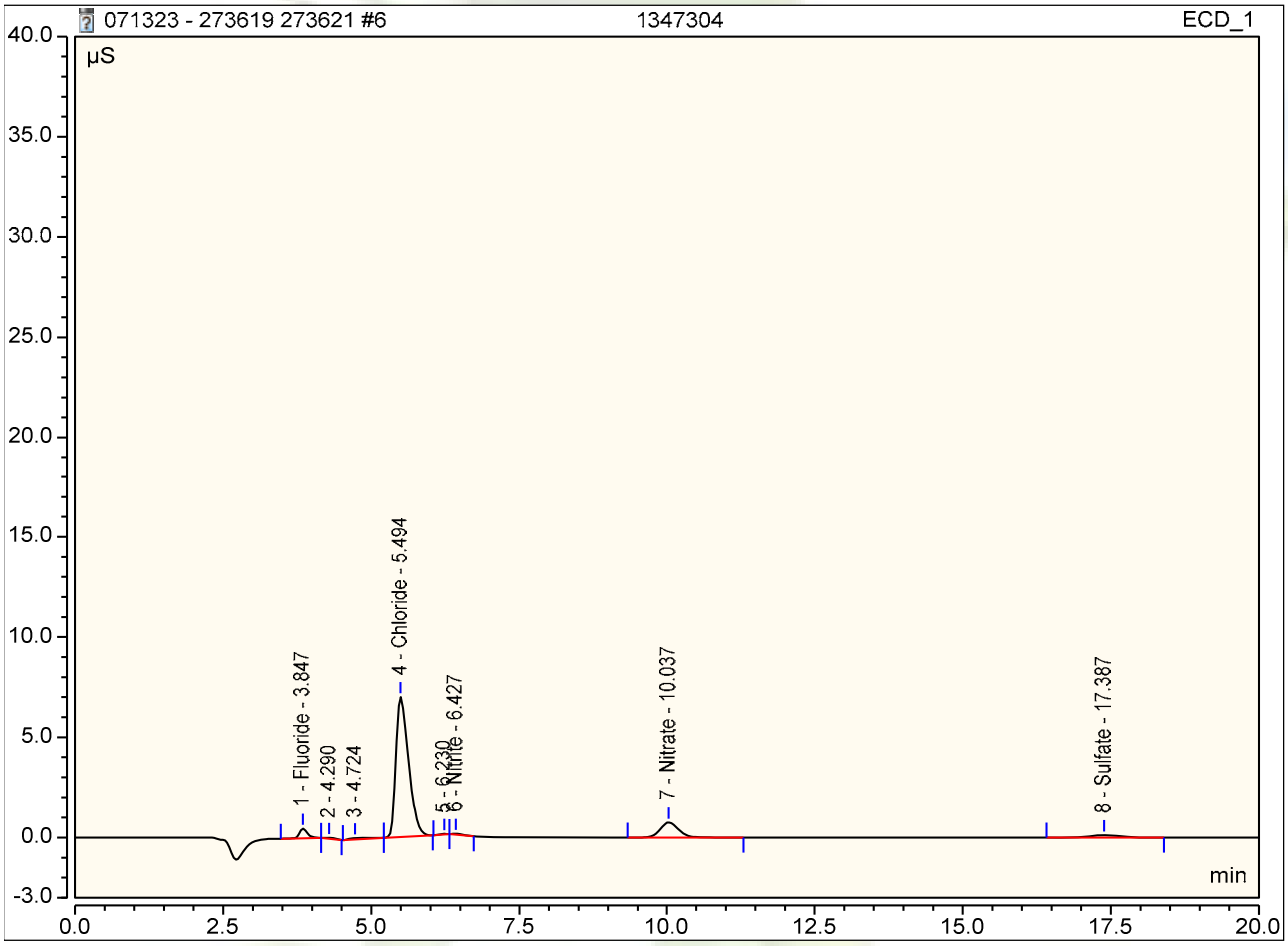
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.84	Fluoride	0.147	0.552	0.2897
3	5.49	Chloride	1.733	7.037	4.6064
5	6.43	Nitrite	0.010	0.044	0.0463
6	10.03	Nitrate	0.274	0.763	0.3412
7	17.40	Sulfate	0.079	0.125	0.8565



Peak Integration Report

Sample Name:	**1347304**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 14:19**	*Run Time:*	**20.00**

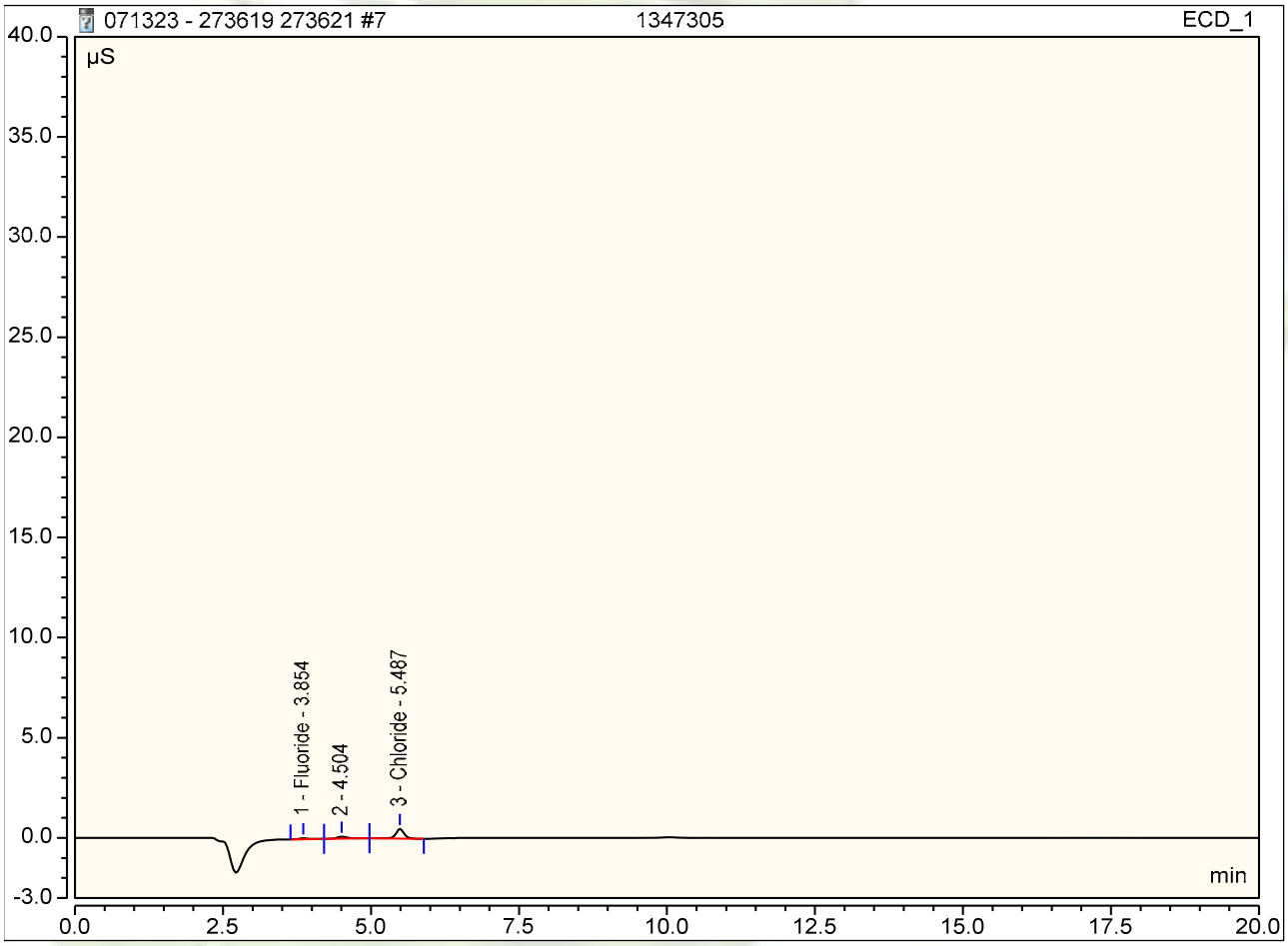
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	0.076	0.483	0.1644
4	5.49	Chloride	1.730	6.979	4.6005
6	6.43	Nitrite	0.010	0.043	0.0460
7	10.04	Nitrate	0.275	0.758	0.3421
8	17.39	Sulfate	0.079	0.126	0.8553



Peak Integration Report

Sample Name:	**1347305**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 14:42**	*Run Time:*	**20.00**

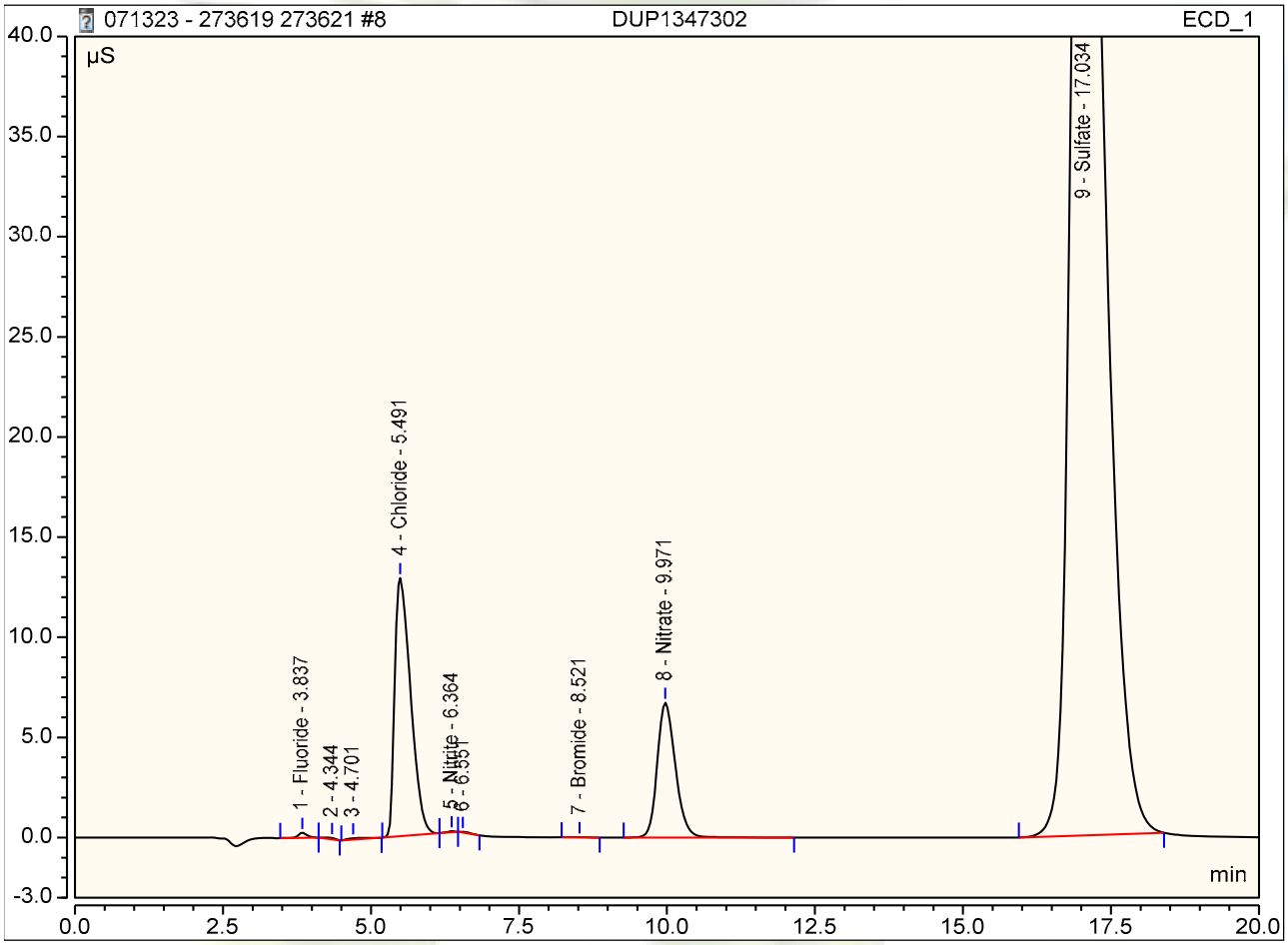
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	0.008	0.052	0.0439
3	5.49	Chloride	0.082	0.484	0.5619



Peak Integration Report

Sample Name:	**DUP1347302**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 15:05**	*Run Time:*	**20.00**

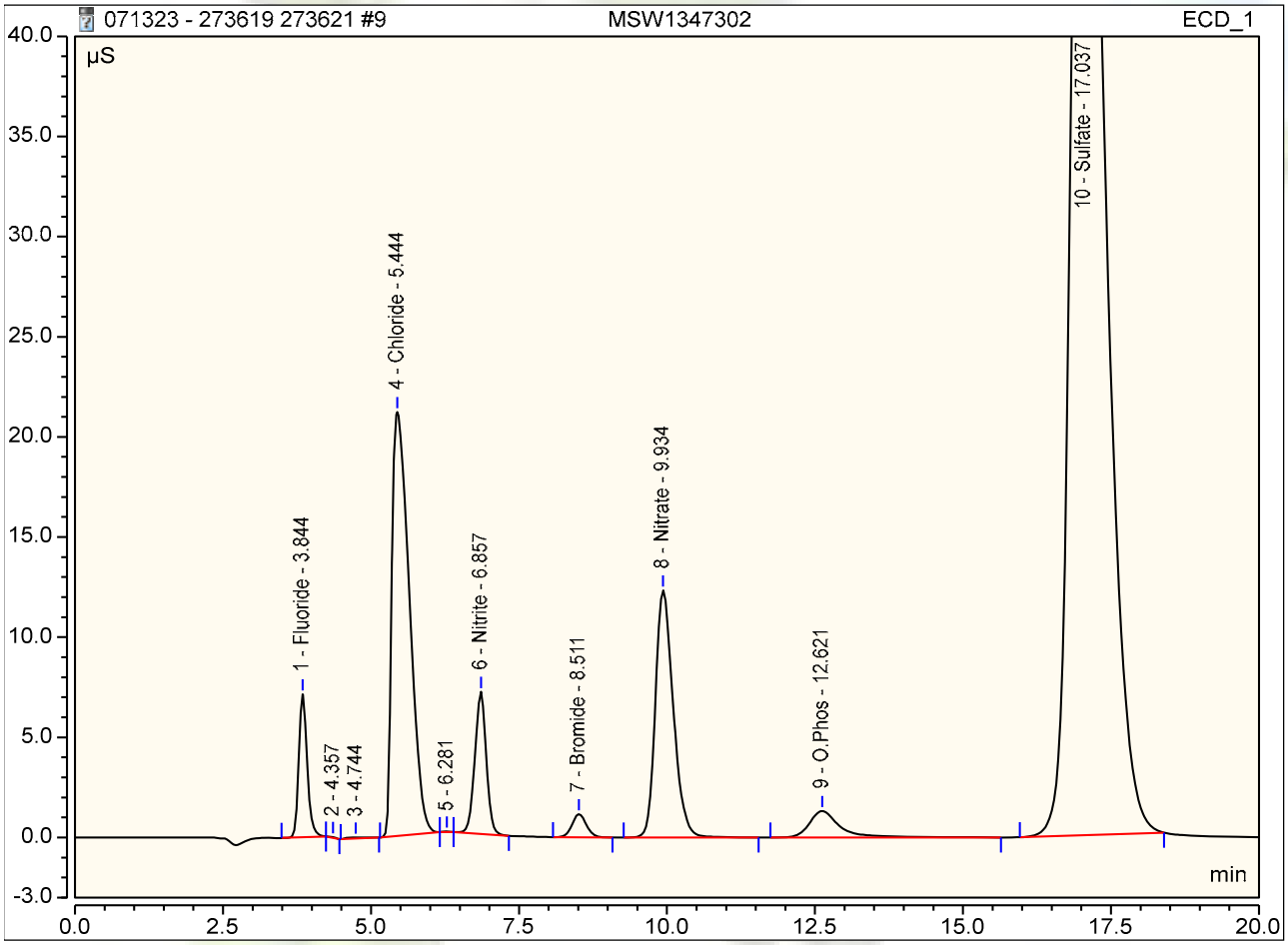
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.84	Fluoride	0.043	0.251	0.1054
4	5.49	Chloride	4.020	12.900	10.2081
5	6.36	Nitrite	0.008	0.054	0.0441
7	8.52	Bromide	0.005	0.018	0.0265
8	9.97	Nitrate	2.395	6.733	2.5961
9	17.03	Sulfate	43.326	70.130	147.3787



Peak Integration Report

Sample Name:	**MSW1347302**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 15:28**	*Run Time:*	**20.00**

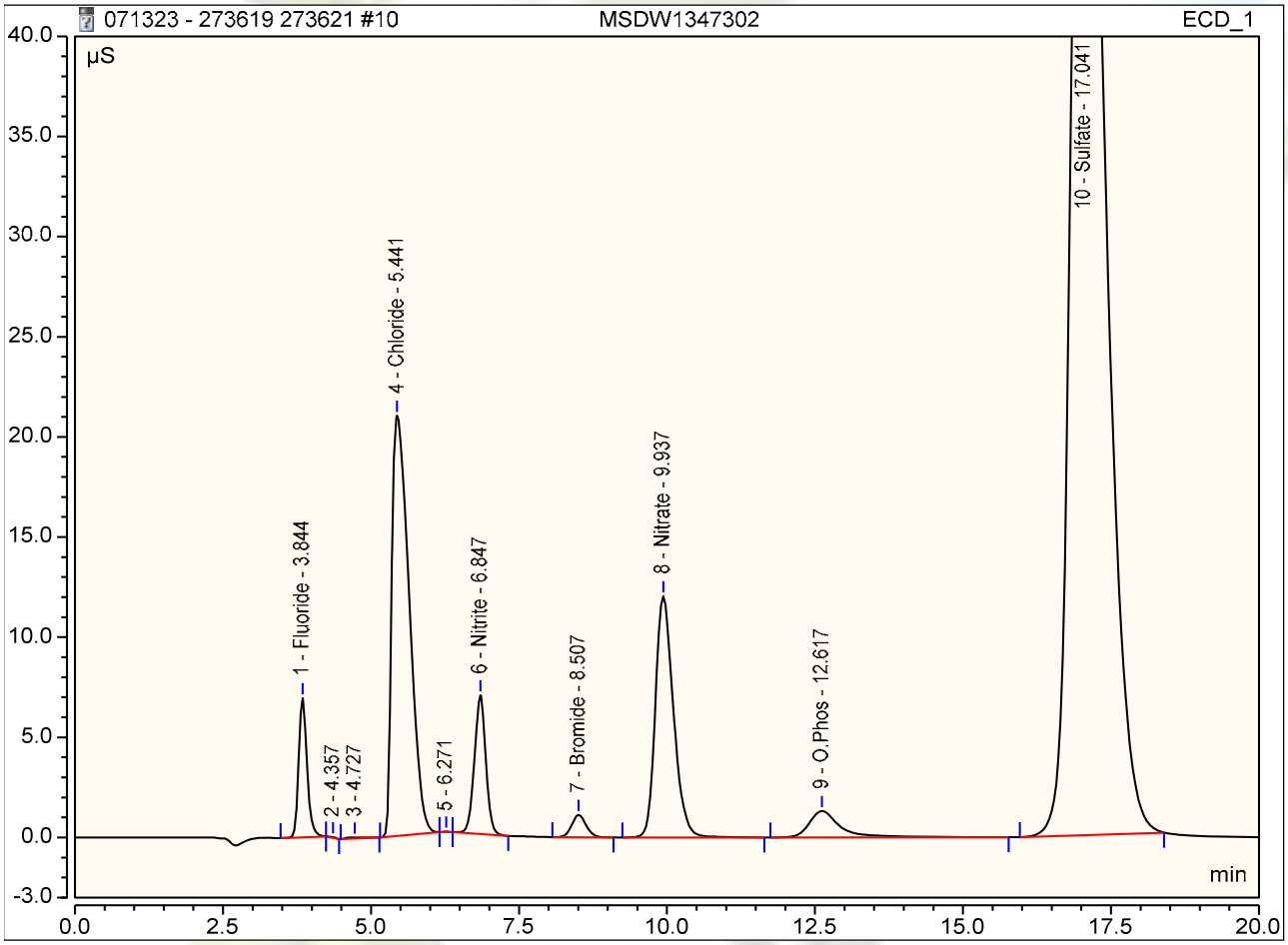
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.84	Fluoride	1.169	7.145	2.0928
4	5.44	Chloride	7.244	21.165	18.1036
6	6.86	Nitrite	1.587	7.095	2.0205
7	8.51	Bromide	0.327	1.160	2.1789
8	9.93	Nitrate	4.323	12.334	4.6469
9	12.62	O.Phos	0.798	1.321	2.1837
10	17.04	Sulfate	43.316	70.182	147.3417



Peak Integration Report

Sample Name:	**MSDW1347302**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 15:51**	*Run Time:*	**20.00**

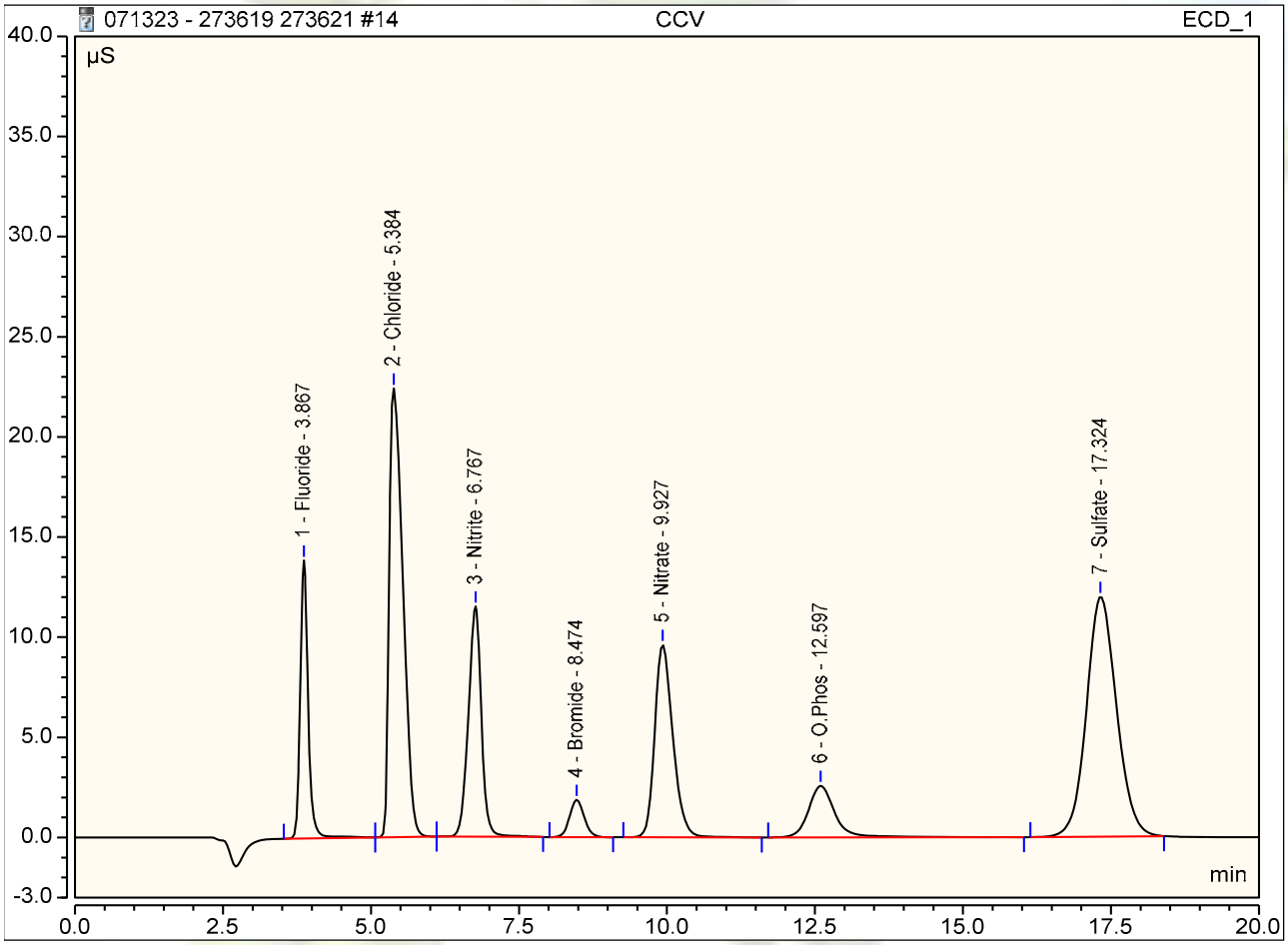
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.84	Fluoride	1.133	6.952	2.0292
4	5.44	Chloride	7.138	20.985	17.8434
6	6.85	Nitrite	1.544	6.933	1.9660
7	8.51	Bromide	0.316	1.120	2.1053
8	9.94	Nitrate	4.270	12.044	4.5901
9	12.62	O.Phos	0.818	1.316	2.2444
10	17.04	Sulfate	43.231	69.917	147.0564



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 17:22**	*Run Time:*	**20.00**

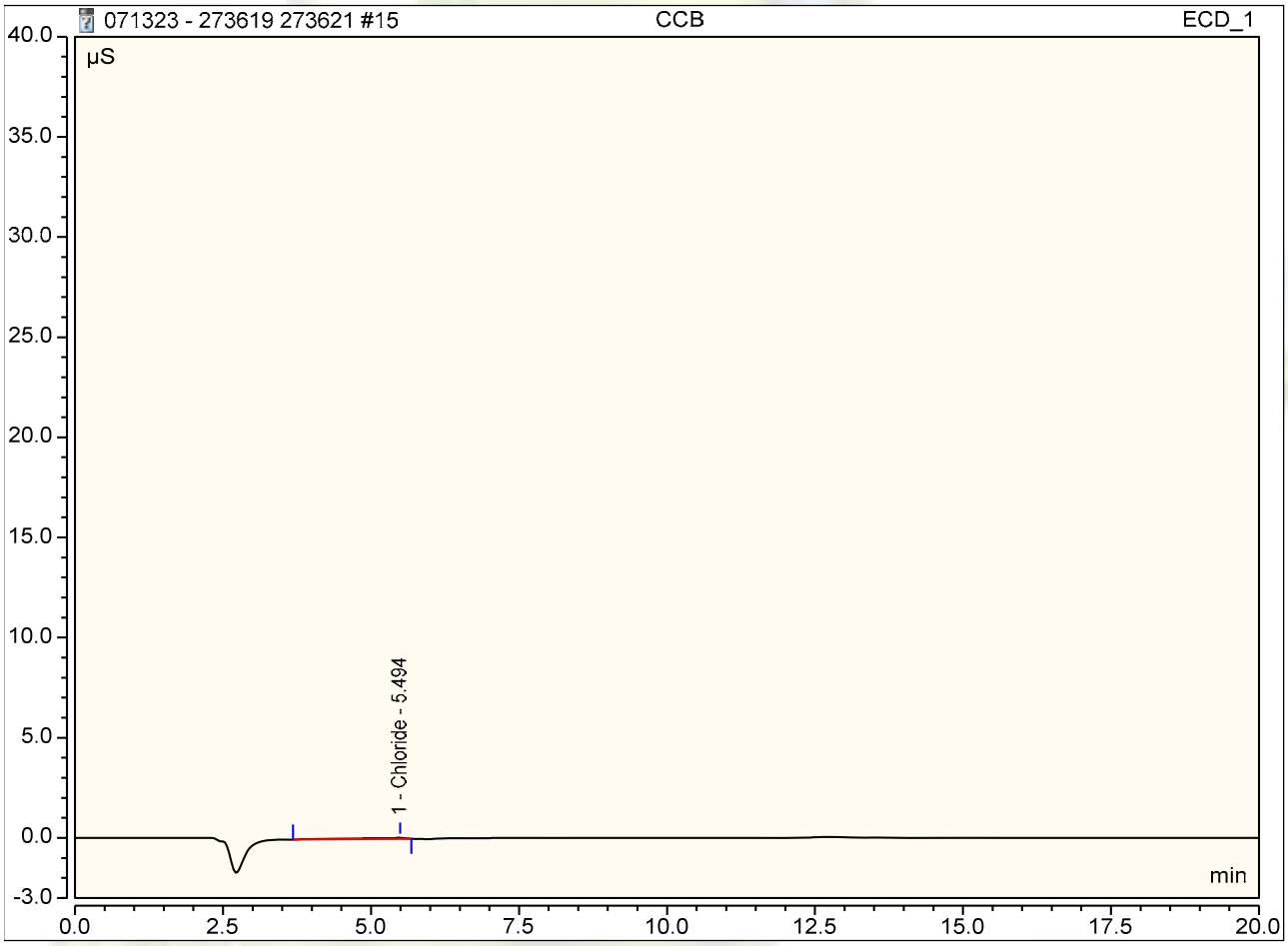
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	2.131	13.882	3.7911
2	5.38	Chloride	6.047	22.396	15.1713
3	6.77	Nitrite	2.923	11.492	3.6923
4	8.47	Bromide	0.537	1.872	3.5863
5	9.93	Nitrate	3.413	9.616	3.6790
6	12.60	O.Phos	1.339	2.577	3.8843
7	17.32	Sulfate	7.067	11.975	24.5305



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**13-Jul-2023 / 17:45**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.49	Chloride	0.058	0.070	0.5043

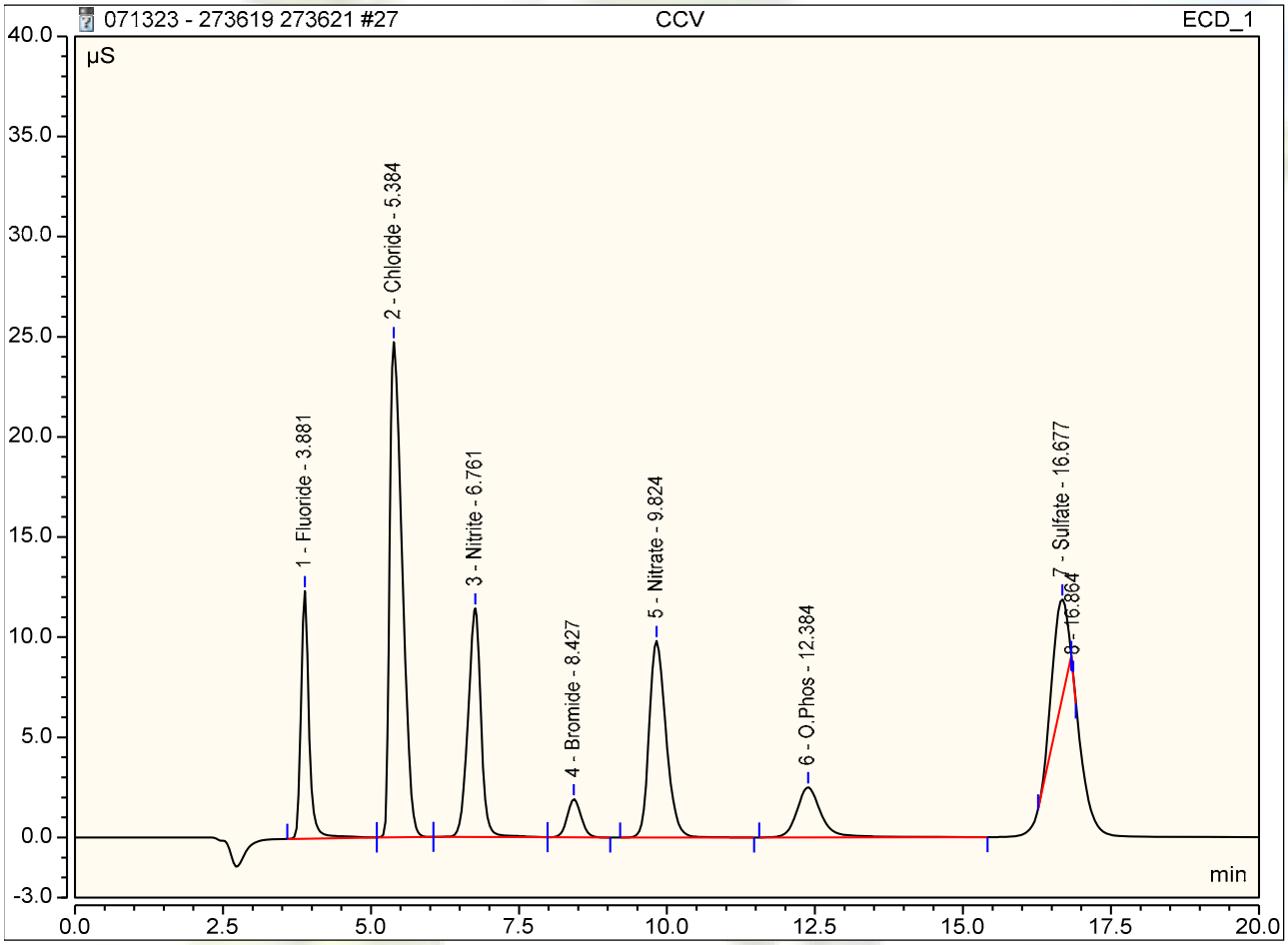


NOT USED

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 07:29**	*Run Time:*	**20.00**

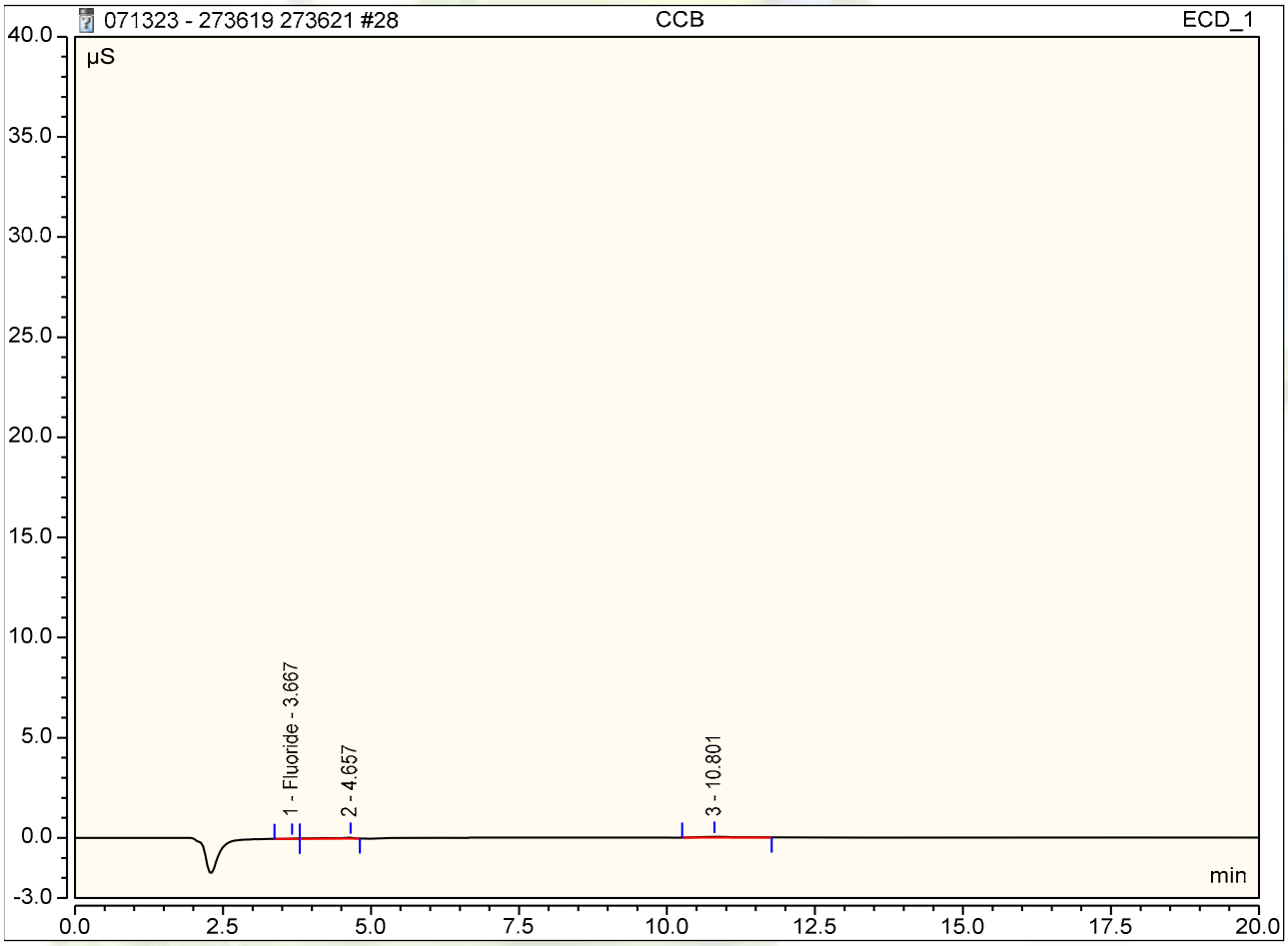
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.88	Fluoride	1.951	12.359	3.4736
2	5.38	Chloride	6.081	24.729	15.2566
3	6.76	Nitrite	2.887	11.419	3.6466
4	8.43	Bromide	0.522	1.904	3.4830
5	9.82	Nitrate	3.261	9.823	3.5175
6	12.38	O.Phos	1.210	2.508	3.4804
7	16.68	Sulfate	1.520	4.923	5.7389



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 07:51**	*Run Time:*	**20.00**

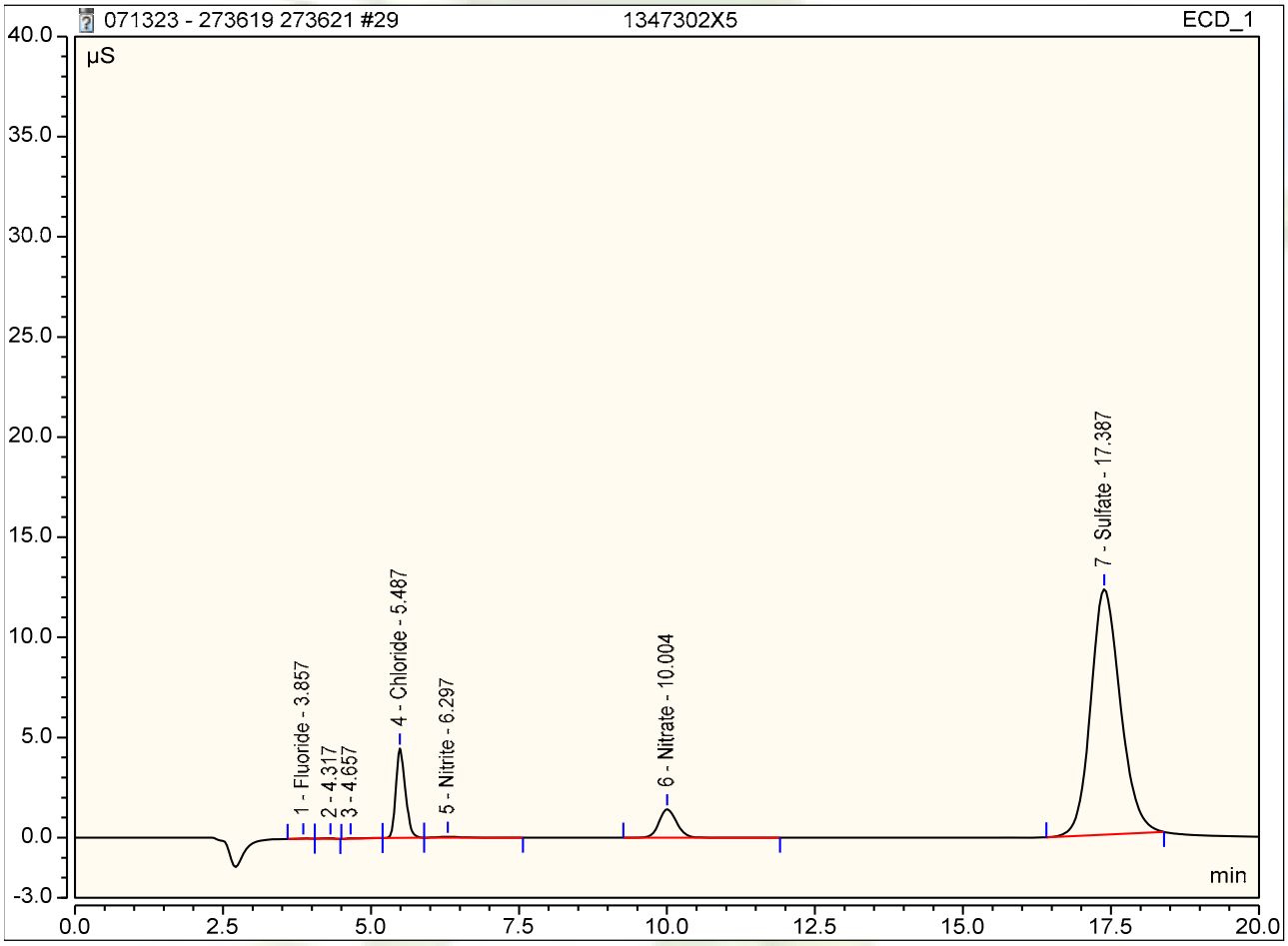
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.67	Fluoride	0.002	0.011	0.0339



Peak Integration Report

Sample Name:	**1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 09:19**	*Run Time:*	**20.00**

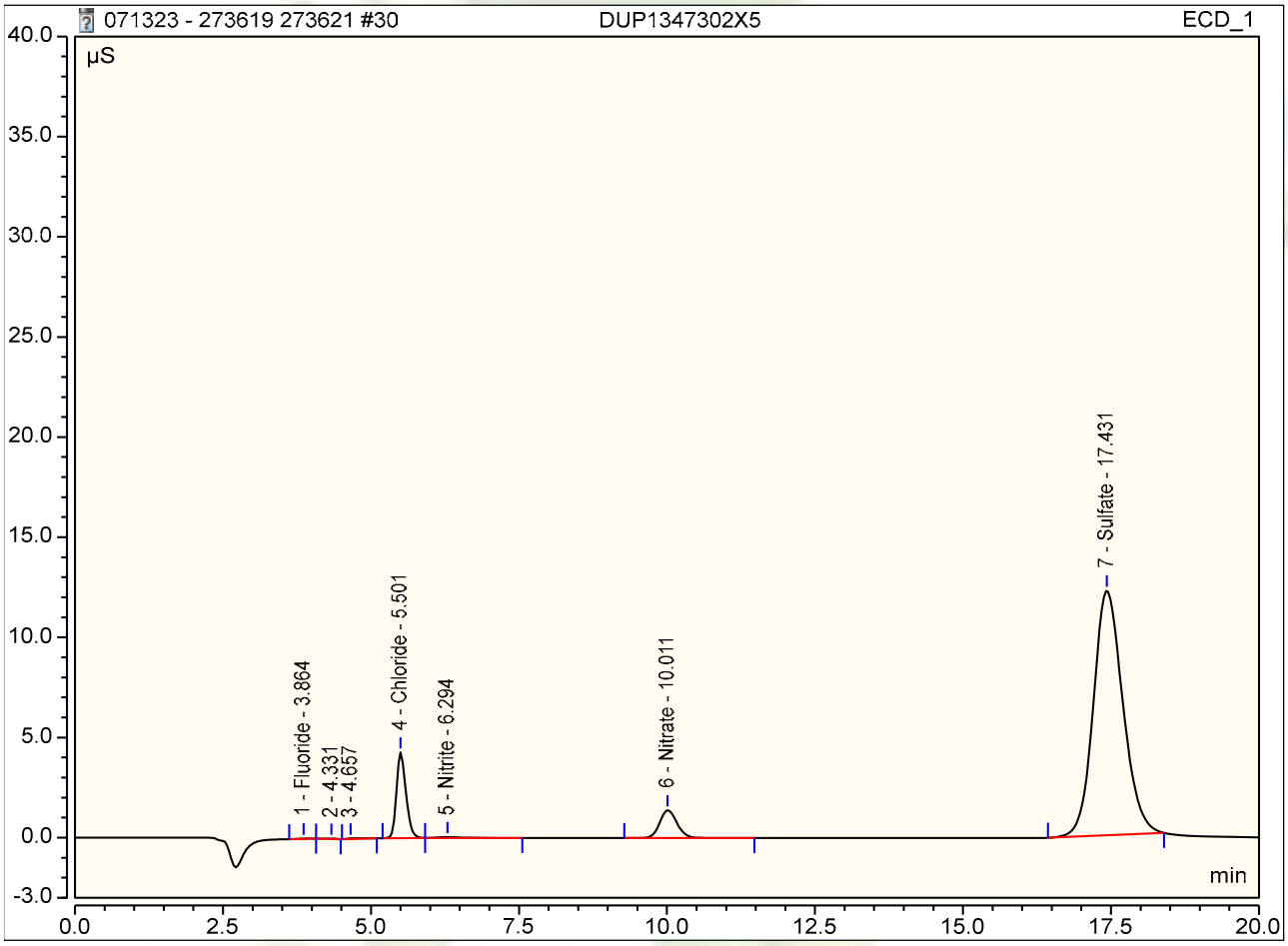
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	0.004	0.024	0.0359
4	5.49	Chloride	0.827	4.462	2.3883
5	6.30	Nitrite	0.024	0.053	0.0644
6	10.00	Nitrate	0.496	1.423	0.5778
7	17.39	Sulfate	7.133	12.252	24.7557



Peak Integration Report

Sample Name:	**DUP1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 09:41**	*Run Time:*	**20.00**

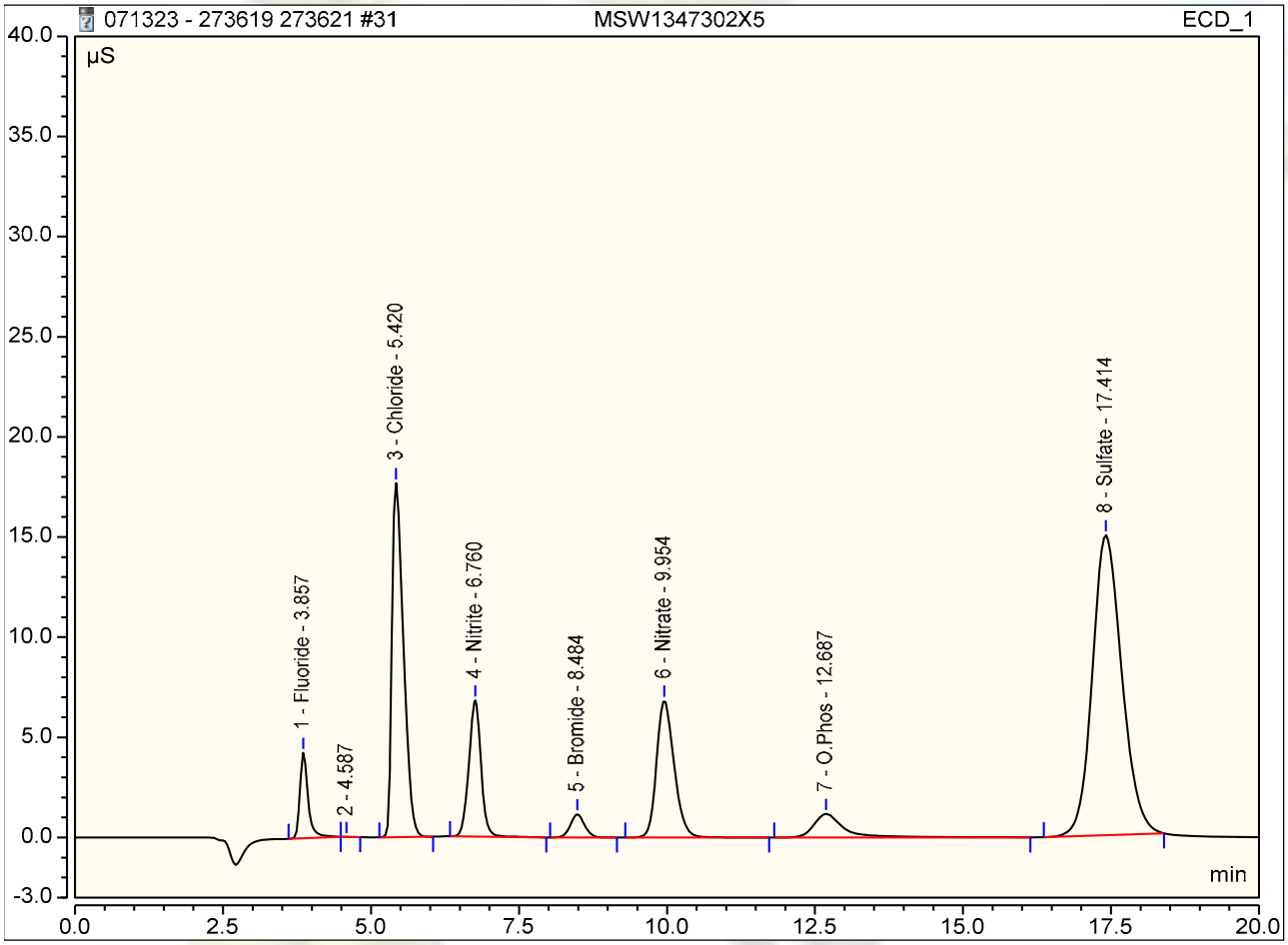
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	0.004	0.024	0.0360
4	5.50	Chloride	0.794	4.284	2.3066
5	6.29	Nitrite	0.022	0.047	0.0620
6	10.01	Nitrate	0.477	1.392	0.5573
7	17.43	Sulfate	7.072	12.228	24.5480



Peak Integration Report

Sample Name:	**MSW1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 10:04**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	0.688	4.273	1.2440
3	5.42	Chloride	3.982	17.675	10.1137
4	6.76	Nitrite	1.620	6.807	2.0613
5	8.48	Bromide	0.324	1.164	2.1604
6	9.95	Nitrate	2.363	6.843	2.5621
7	12.69	O.Phos	0.709	1.181	1.9046
8	17.41	Sulfate	8.674	14.981	29.9774

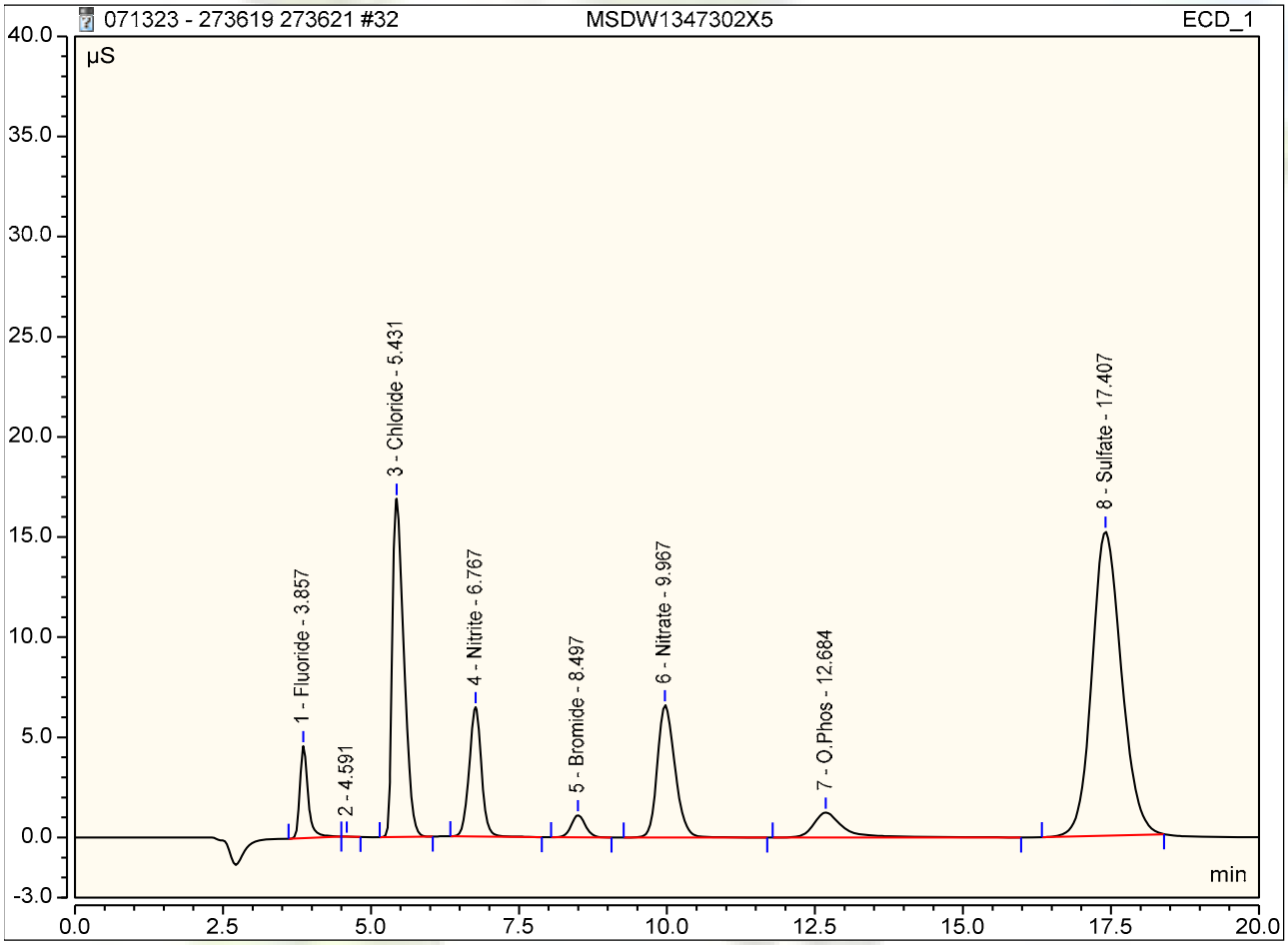


NOT USED

Peak Integration Report

Sample Name:	**MSDW1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 10:27**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	0.743	4.601	1.3407
3	5.43	Chloride	3.835	16.885	9.7542
4	6.77	Nitrite	1.554	6.458	1.9781
5	8.50	Bromide	0.310	1.105	2.0656
6	9.97	Nitrate	2.282	6.603	2.4770
7	12.68	O.Phos	0.740	1.246	2.0012
8	17.41	Sulfate	8.786	15.184	30.3570

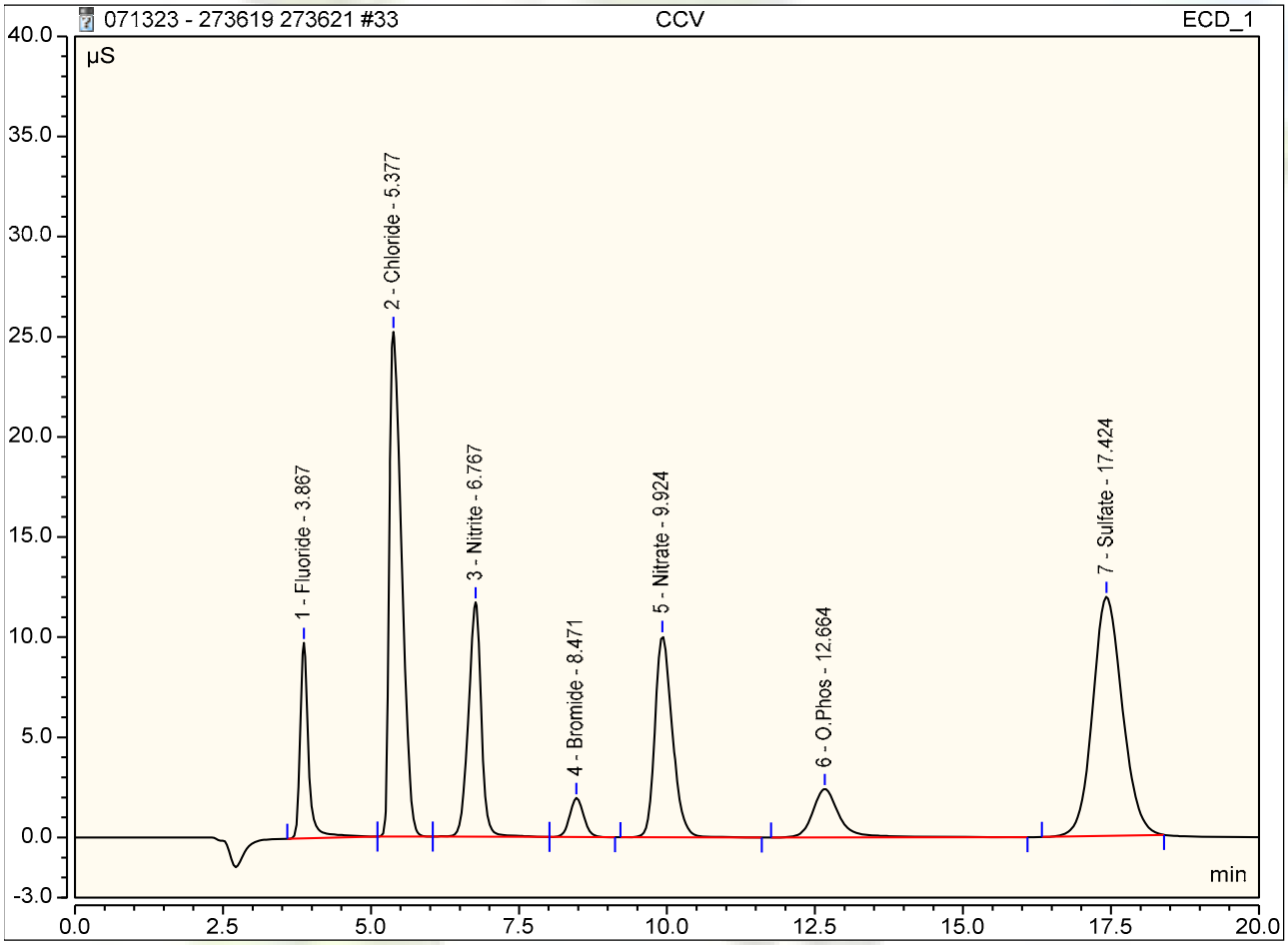


Chromeleon (c) Dionex 1996-2009
Version 7.2.9.11323

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 10:50**	*Run Time:*	**20.00**

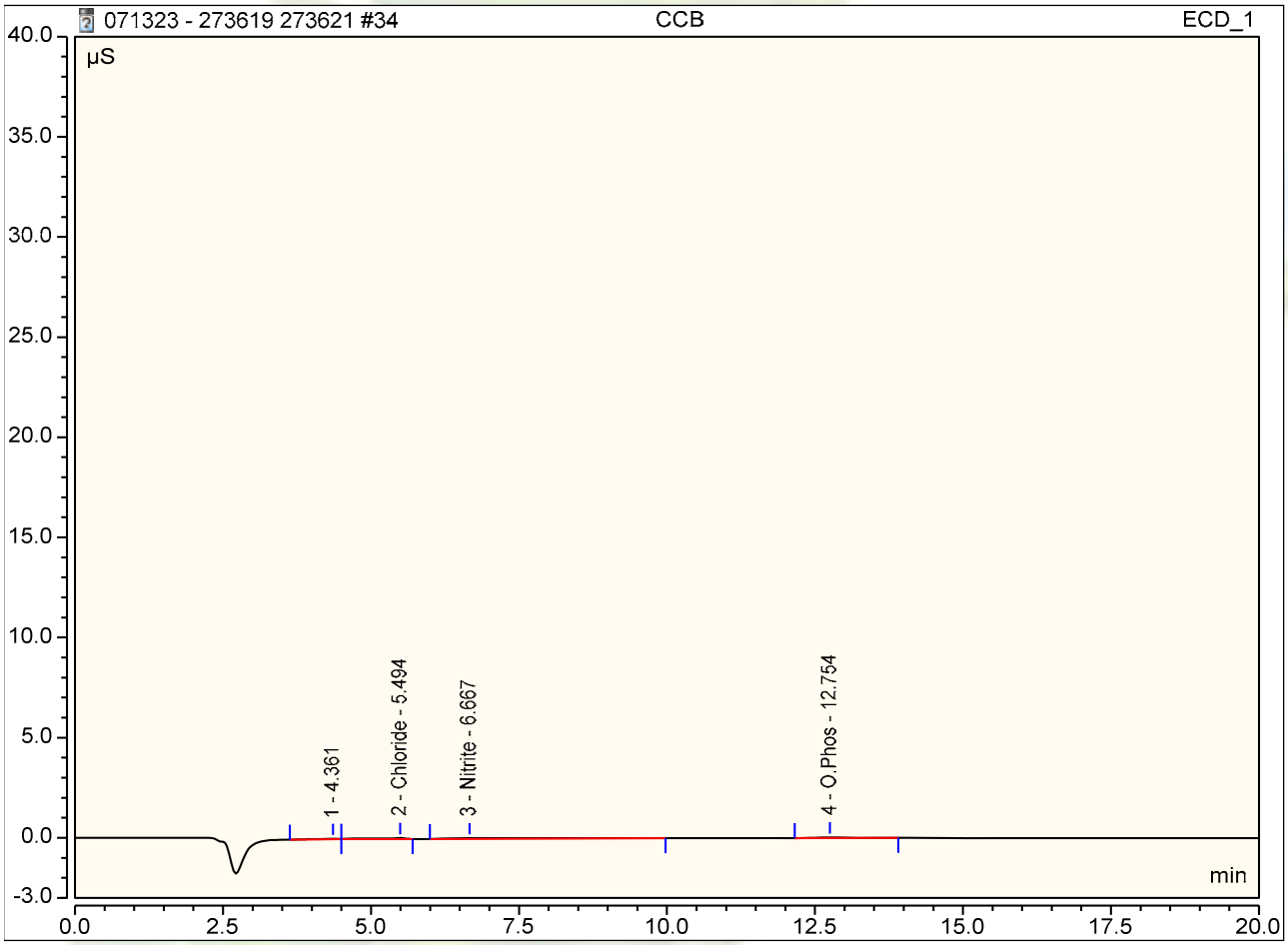
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.594	9.767	2.8433
2	5.38	Chloride	6.106	25.197	15.3177
3	6.77	Nitrite	2.936	11.708	3.7081
4	8.47	Bromide	0.538	1.953	3.5910
5	9.92	Nitrate	3.427	10.057	3.6939
6	12.66	O.Phos	1.266	2.416	3.6551
7	17.42	Sulfate	6.950	11.937	24.1349

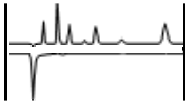
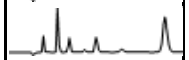
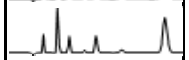
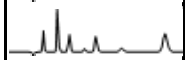


Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 11:13**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	5.49	Chloride	0.030	0.055	0.4348
3	6.67	Nitrite	0.082	0.036	0.1365
4	12.75	O.Phos	0.023	0.036	n.a.

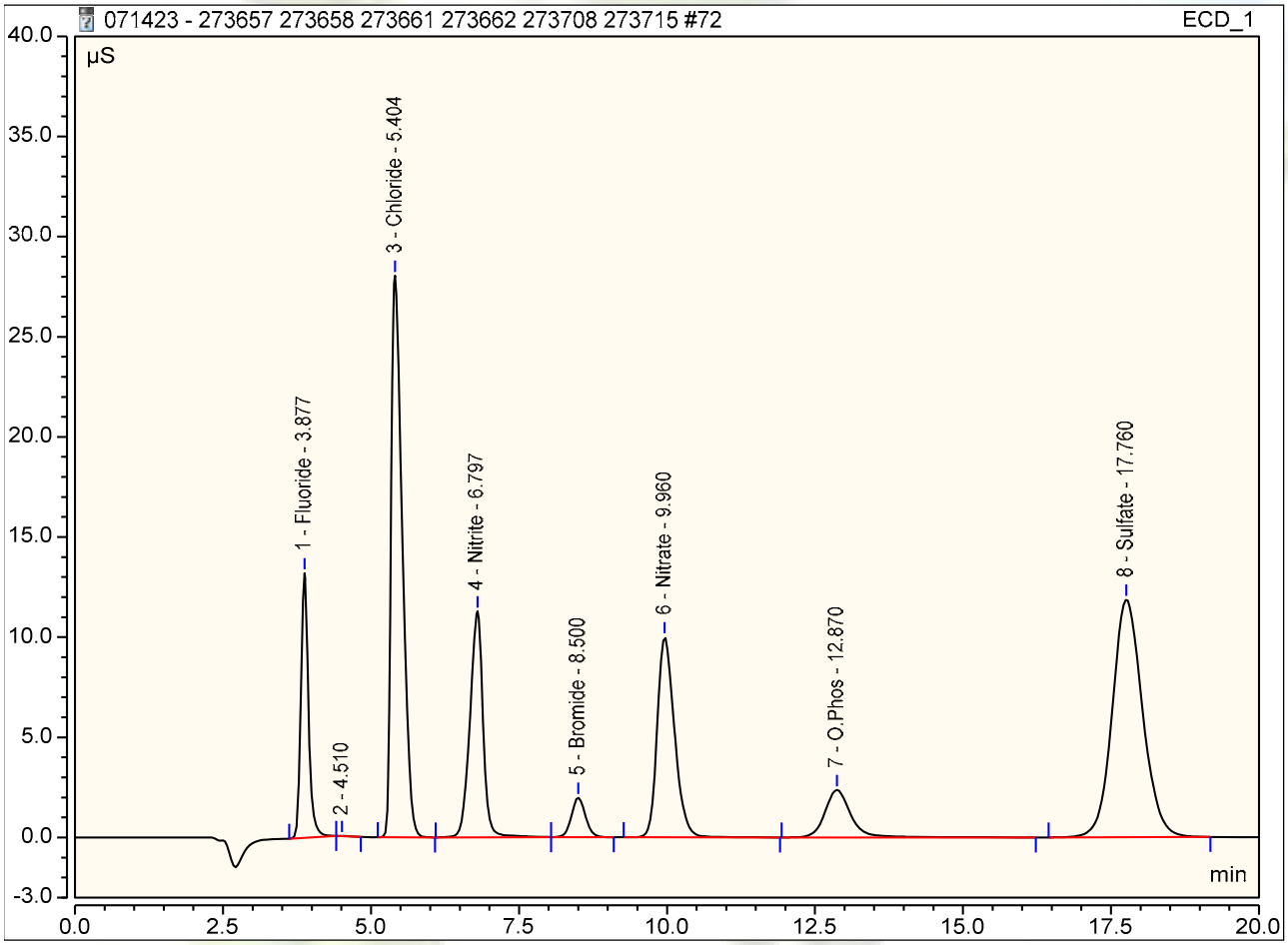


ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		27	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		28	5000	Anions	IC4750A	Finished
	1347302X5	1.0000	Unknown		31	5000	Anions	IC4750A	Finished
	DUP1347302X5	1.0000	Unknown		32	5000	Anions	IC4750A	Finished
	MSW1347302X5	1.0000	Unknown		33	5000	Anions	IC4750A	Finished
	MSDW1347302X5	1.0000	Unknown		34	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		35	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		36	5000	Anions	IC4750A	Finished

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 19:07**	*Run Time:*	**20.00**

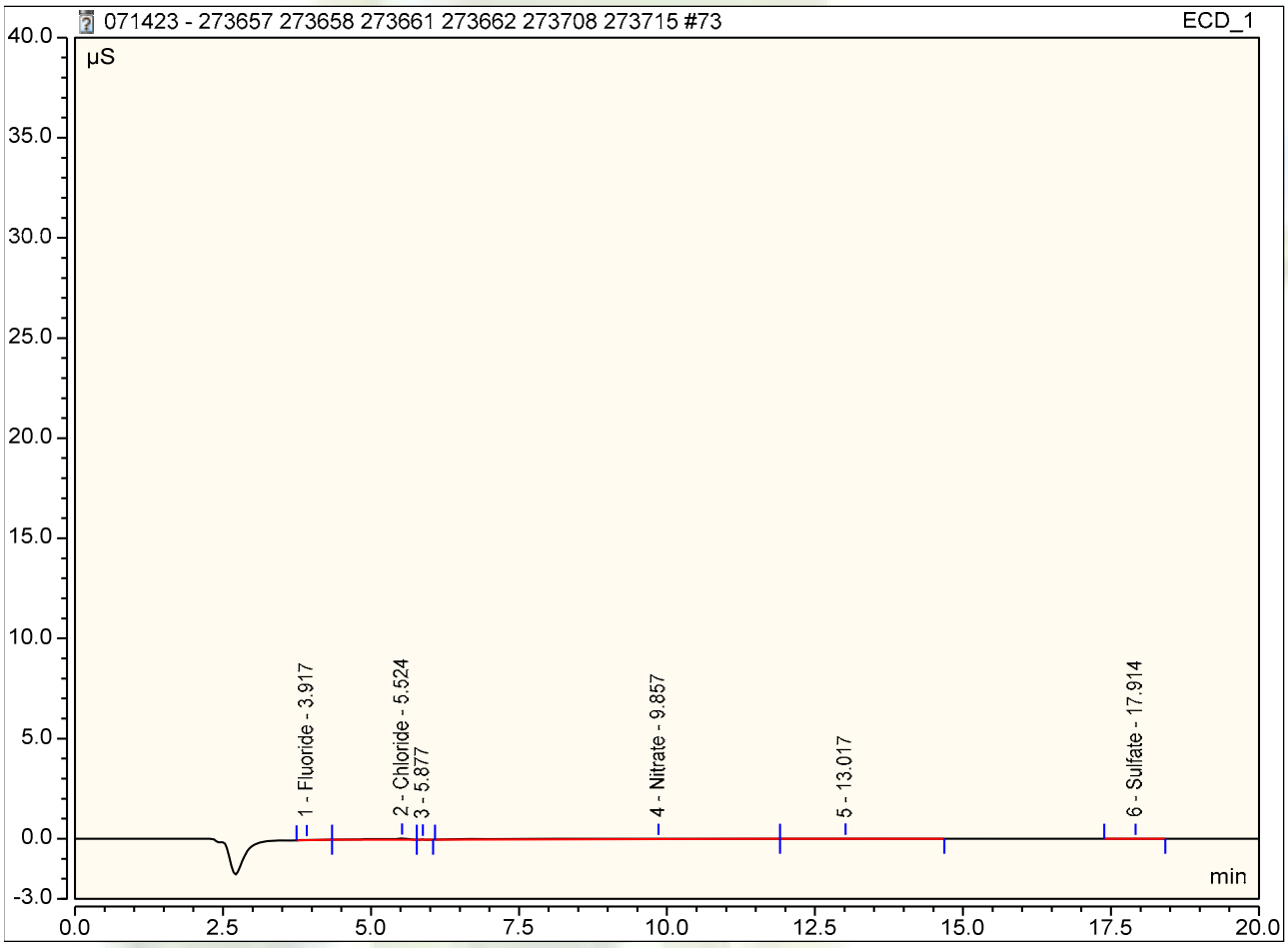
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.88	Fluoride	1.949	13.216	3.4694
3	5.40	Chloride	6.140	28.040	15.4007
4	6.80	Nitrite	2.893	11.282	3.6547
5	8.50	Bromide	0.541	1.970	3.6117
6	9.96	Nitrate	3.390	10.003	3.6543
7	12.87	O.Phos	1.202	2.364	3.4550
8	17.76	Sulfate	7.037	11.867	24.4285



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 19:30**	*Run Time:*	**20.00**

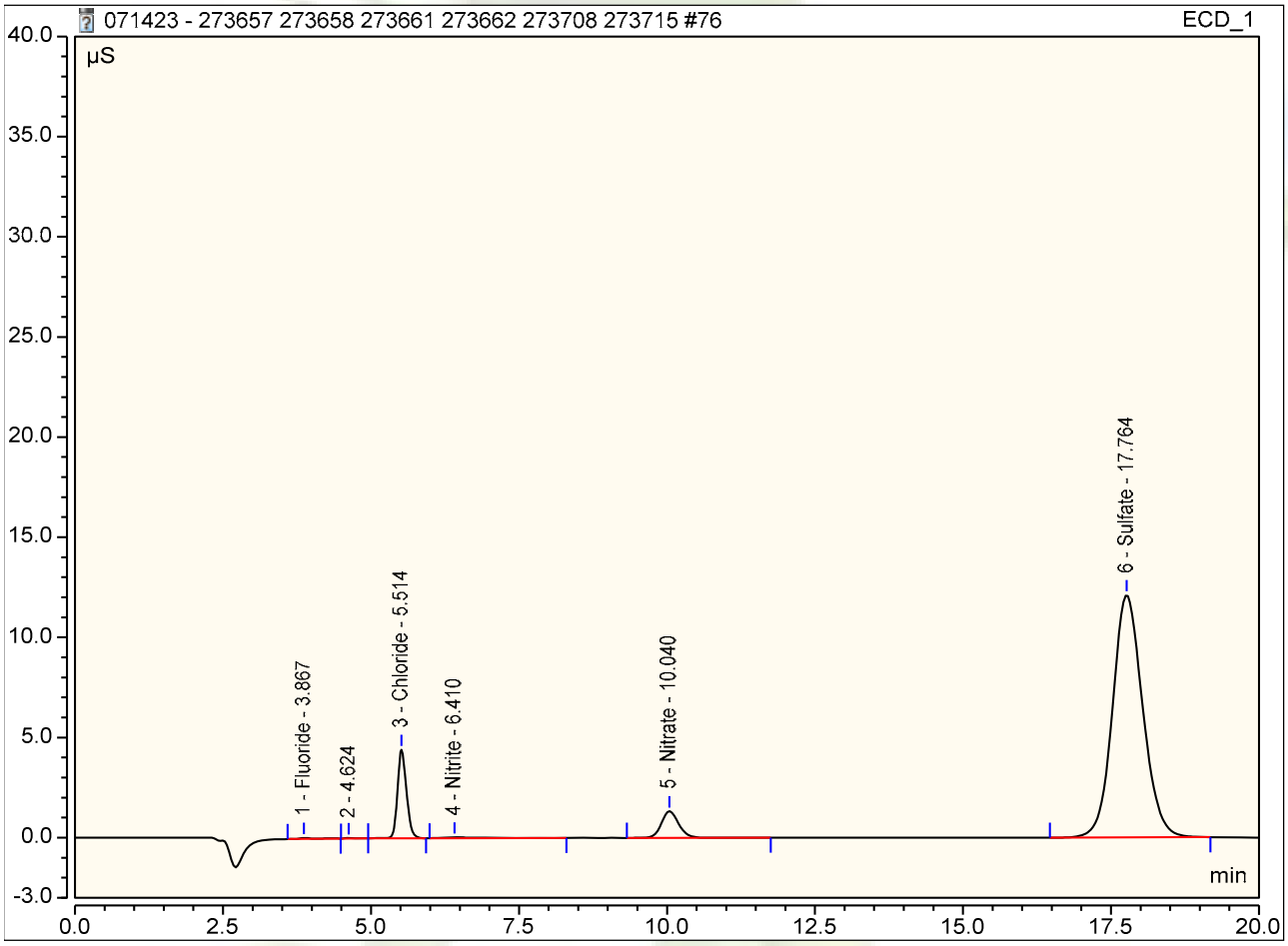
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.92	Fluoride	0.002	0.007	0.0326
2	5.52	Chloride	0.028	0.058	0.4310
4	9.86	Nitrate	0.118	0.018	0.1760
6	17.91	Sulfate	0.002	0.006	0.5967



Peak Integration Report

Sample Name:	**1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 20:39**	*Run Time:*	**20.00**

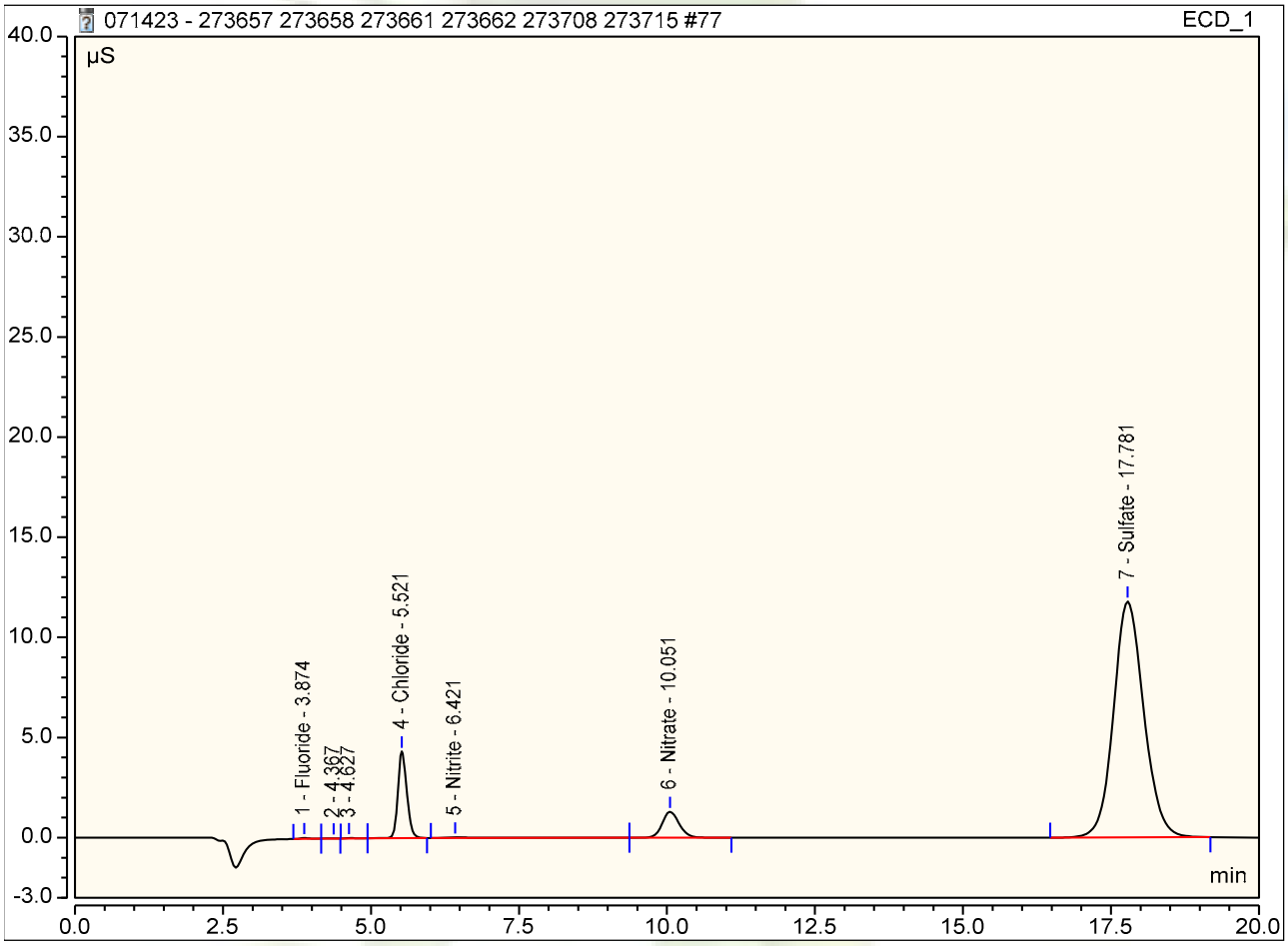
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	0.015	0.055	0.0559
3	5.51	Chloride	0.774	4.417	2.2567
4	6.41	Nitrite	0.027	0.042	0.0676
5	10.04	Nitrate	0.450	1.327	0.5291
6	17.76	Sulfate	7.170	12.099	24.8809



Peak Integration Report

Sample Name:	**DUP1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 21:01**	*Run Time:*	**20.00**

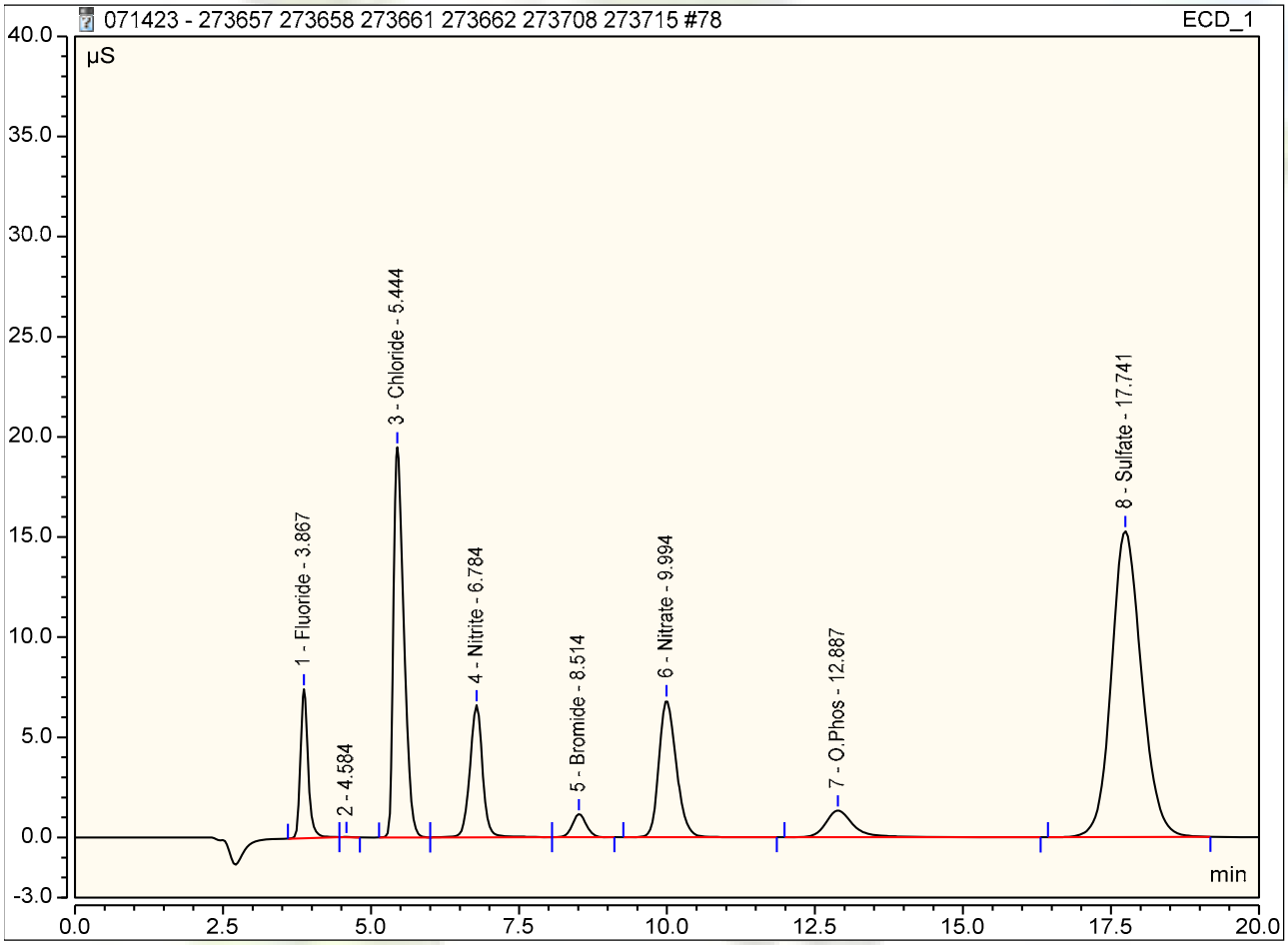
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	0.007	0.047	0.0422
4	5.52	Chloride	0.756	4.329	2.2149
5	6.42	Nitrite	0.036	0.041	0.0785
6	10.05	Nitrate	0.439	1.293	0.5171
7	17.78	Sulfate	6.999	11.783	24.2999



Peak Integration Report

Sample Name:	**MSW1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 21:24**	*Run Time:*	**20.00**

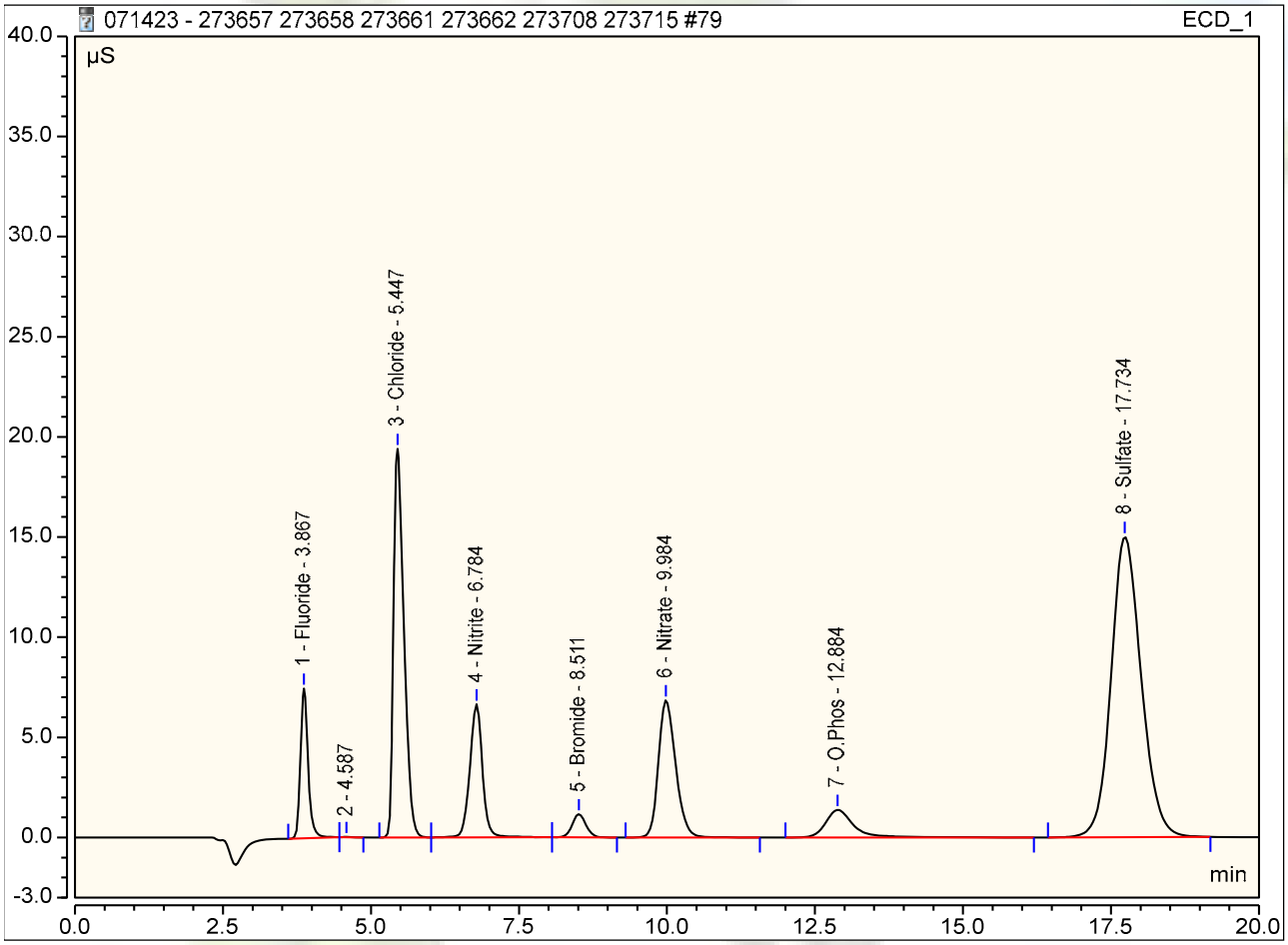
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.101	7.441	1.9741
3	5.44	Chloride	3.994	19.487	10.1444
4	6.78	Nitrite	1.641	6.602	2.0880
5	8.51	Bromide	0.319	1.154	2.1291
6	9.99	Nitrate	2.335	6.844	2.5324
7	12.89	O.Phos	0.746	1.345	2.0201
8	17.74	Sulfate	9.037	15.279	31.2044



Peak Integration Report

Sample Name:	**MSDW1347302X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 21:47**	*Run Time:*	**20.00**

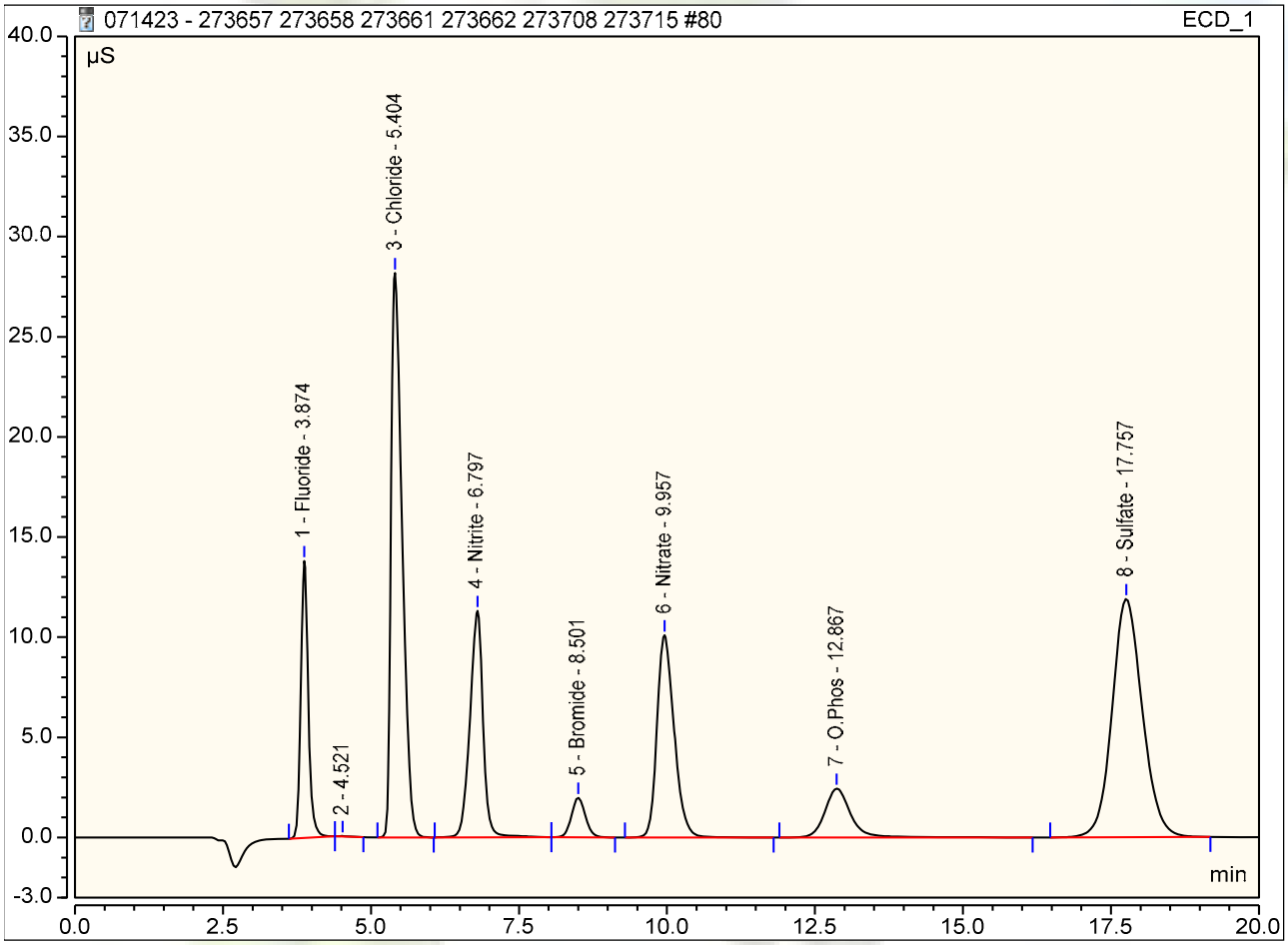
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.105	7.475	1.9796
3	5.45	Chloride	3.959	19.405	10.0580
4	6.78	Nitrite	1.645	6.643	2.0929
5	8.51	Bromide	0.317	1.159	2.1164
6	9.98	Nitrate	2.313	6.857	2.5090
7	12.88	O.Phos	0.770	1.383	2.0953
8	17.73	Sulfate	8.850	14.996	30.5733



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 22:10**	*Run Time:*	**20.00**

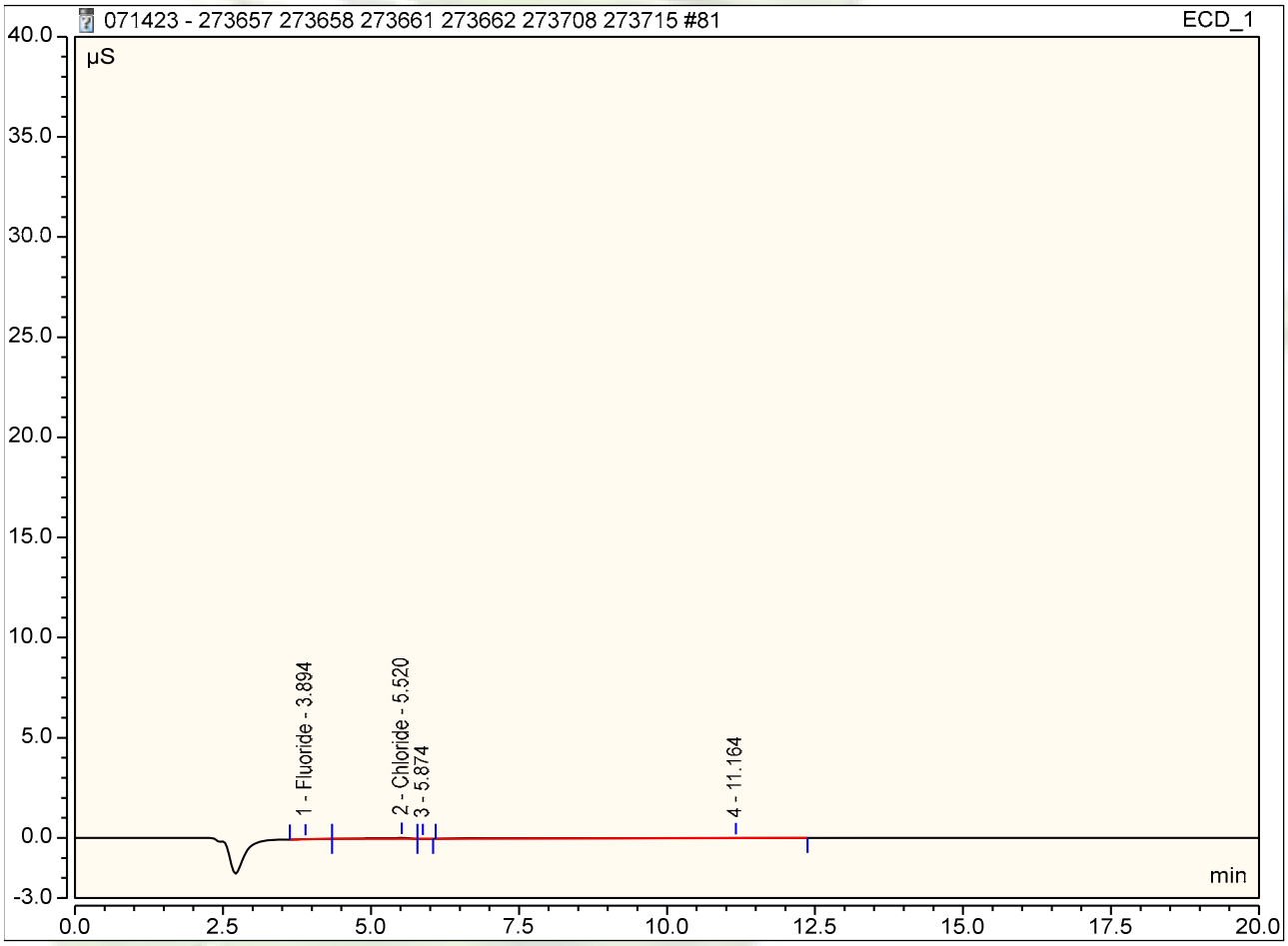
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	2.012	13.827	3.5807
3	5.40	Chloride	6.150	28.171	15.4251
4	6.80	Nitrite	2.900	11.307	3.6630
5	8.50	Bromide	0.542	1.979	3.6148
6	9.96	Nitrate	3.393	10.095	3.6577
7	12.87	O.Phos	1.243	2.439	3.5837
8	17.76	Sulfate	7.052	11.895	24.4789

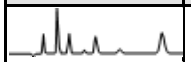
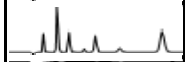
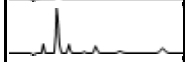
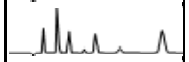
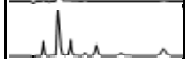


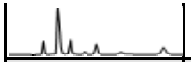
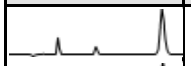
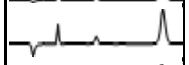
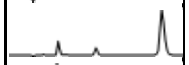
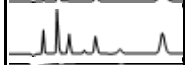
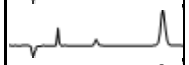
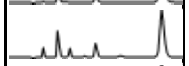
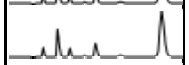
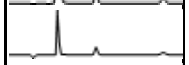
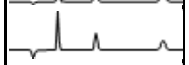
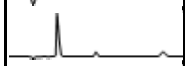
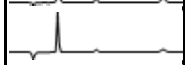
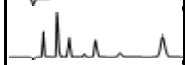
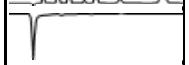
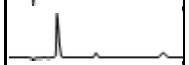
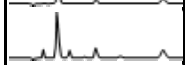
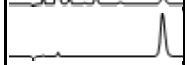
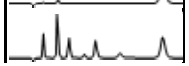
Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 22:33**	*Run Time:*	**20.00**

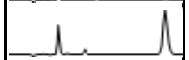
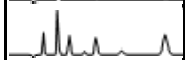
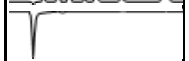
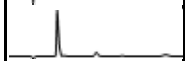
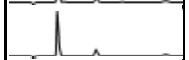
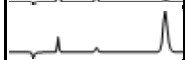
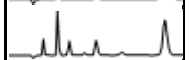
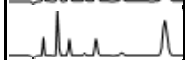
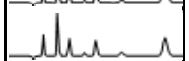
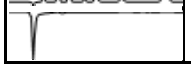
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.89	Fluoride	0.001	0.007	0.0323
2	5.52	Chloride	0.029	0.051	0.4322



ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		1	5000	Anions	IC4750A	Finished
	LCSW	1.0000	Unknown		2	5000	Anions	IC4750A	Finished
	MBW	1.0000	Unknown		3	5000	Anions	IC4750A	Finished
									
	CCV	1.0000	Unknown		14	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		15	5000	Anions	IC4750A	Finished
									

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	MSDW1347732	1.0000	Unknown		22	5000	Anions	IC4750A	Finished
	1347758	1.0000	Unknown		23	5000	Anions	IC4750A	Finished
	1347758X5	1.0000	Unknown		24	5000	Anions	IC4750A	Finished
	1347759	1.0000	Unknown		25	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		26	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		27	5000	Anions	IC4750A	Finished
	1347759X5	1.0000	Unknown		28	5000	Anions	IC4750A	Finished
	DUP1347759	1.0000	Unknown		29	5000	Anions	IC4750A	Finished
	MSW1347759	1.0000	Unknown		30	5000	Anions	IC4750A	Finished
	MSDW1347759	1.0000	Unknown		31	5000	Anions	IC4750A	Finished
									
									
									
									
	CCV	1.0000	Unknown		38	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		39	5000	Anions	IC4750A	Finished
									
									
									
	CCV	1.0000	Unknown		43	5000	Anions	IC4750A	Finished

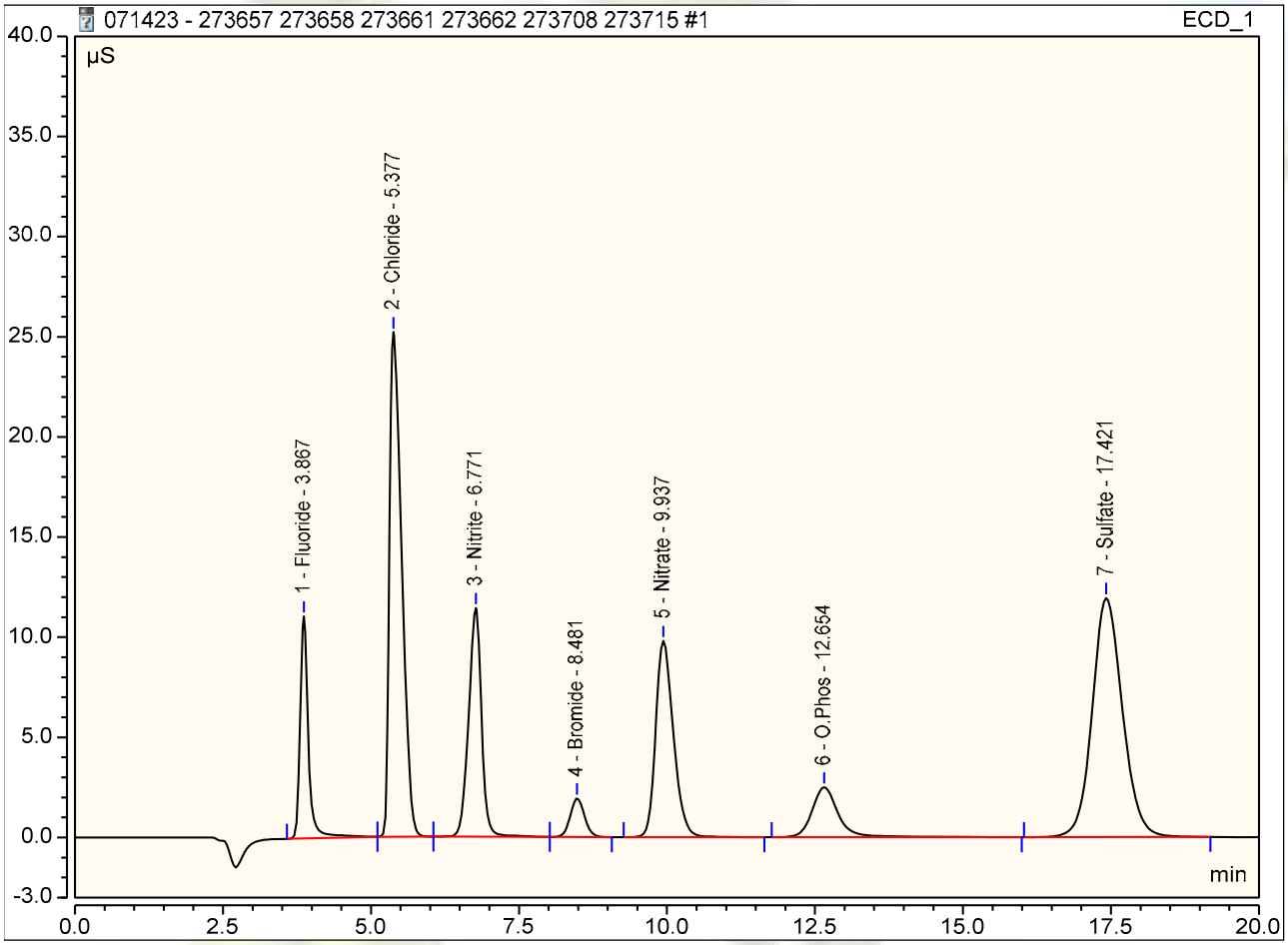
ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCB	1.0000	Unknown		44	5000	Anions	IC4750A	Finished
None									
	CCV	1.0000	Unknown		2	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		3	5000	Anions	IC4750A	Finished
	1348146	1.0000	Unknown		4	5000	Anions	IC4750A	Finished
	1348147	1.0000	Unknown		5	5000	Anions	IC4750A	Finished
	1348148	1.0000	Unknown		6	5000	Anions	IC4750A	Finished
	MSW1347759X5	1.0000	Unknown		7	5000	Anions	IC4750A	Finished
	MSDW1347759X5	1.0000	Unknown		8	5000	Anions	IC4750A	Finished
	DUP1348146	1.0000	Unknown		9	5000	Anions	IC4750A	Finished
	MSW1348146	1.0000	Unknown		10	5000	Anions	IC4750A	Finished
	MSDW1348146	1.0000	Unknown		11	5000	Anions	IC4750A	Finished
	CCV	1.0000	Unknown		14	5000	Anions	IC4750A	Finished
	LCSW	1.0000	Unknown		15	5000	Anions	IC4750A	Finished
	MBW-CCB	1.0000	Unknown		16	5000	Anions	IC4750A	Finished

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
									
	CCV	1.0000	Unknown		27	5000	Anions	IC4750A	Finished
	CCB	1.0000	Unknown		28	5000	Anions	IC4750A	Finished
									
									
									
									
									
									
									

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 11:58**	*Run Time:*	**20.00**

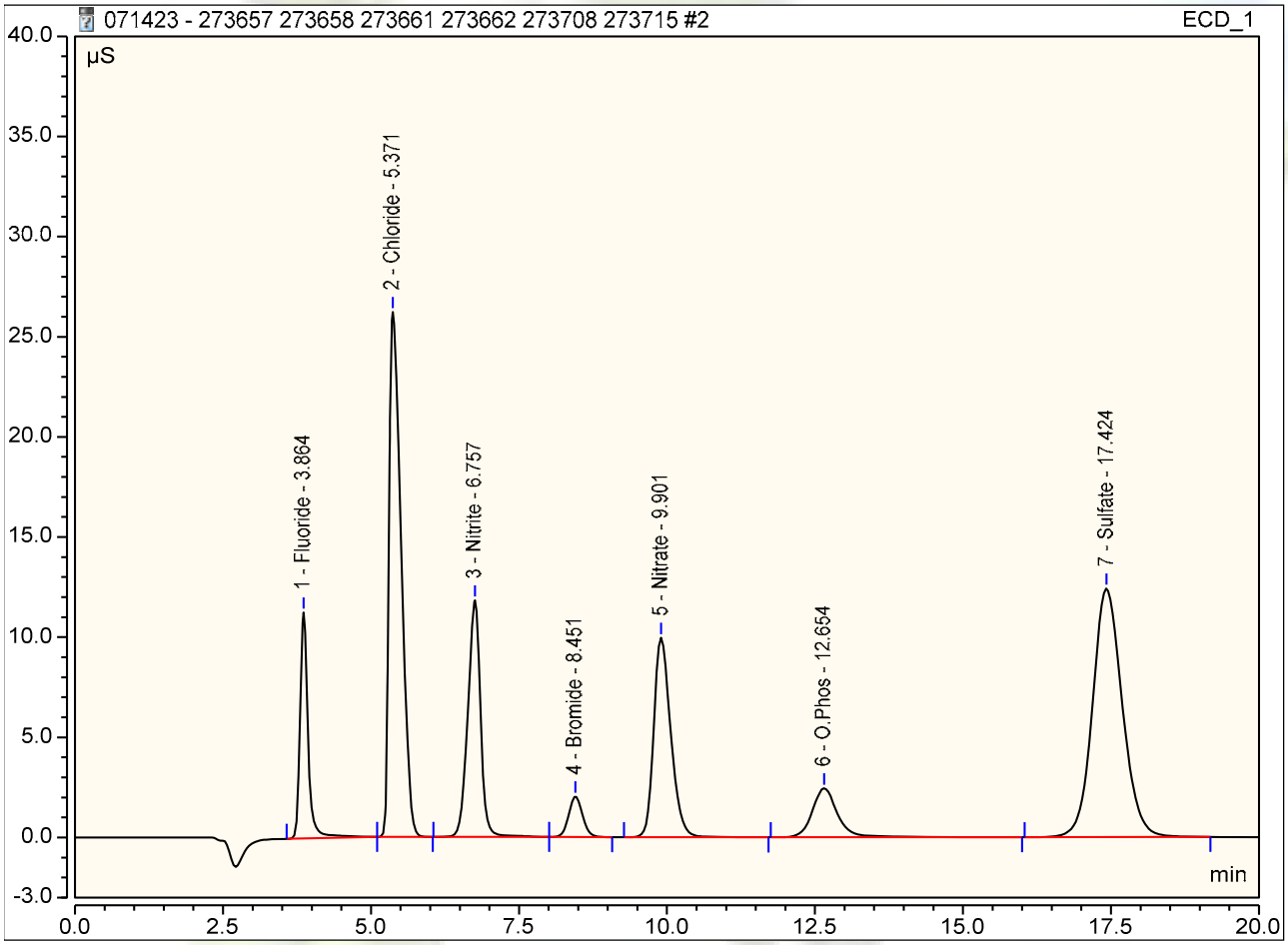
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.772	11.091	3.1585
2	5.38	Chloride	6.080	25.185	15.2521
3	6.77	Nitrite	2.882	11.426	3.6402
4	8.48	Bromide	0.543	1.932	3.6241
5	9.94	Nitrate	3.403	9.806	3.6684
6	12.65	O.Phos	1.299	2.495	3.7593
7	17.42	Sulfate	7.073	11.940	24.5532



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 12:21**	*Run Time:*	**20.00**

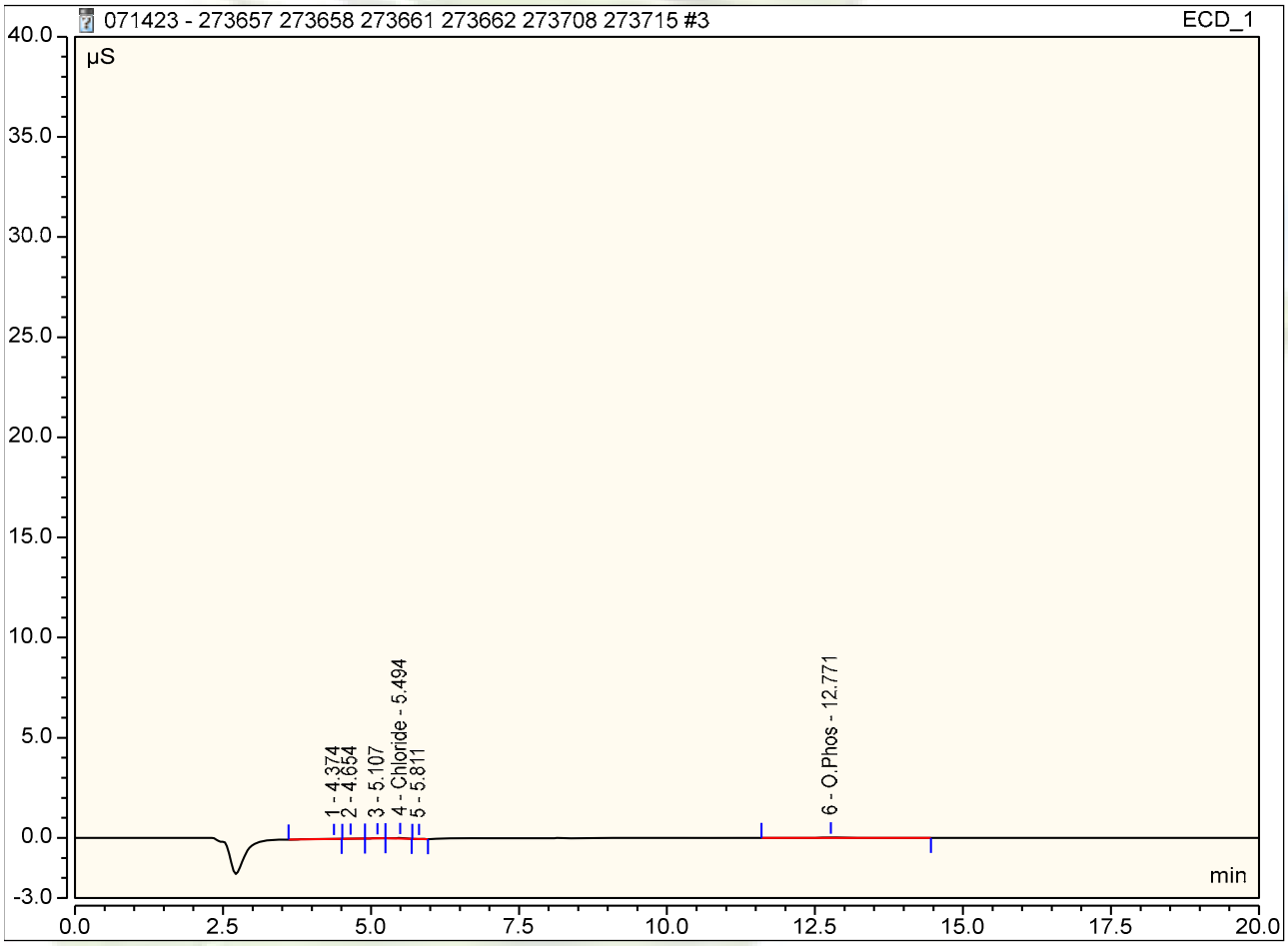
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	1.753	11.284	3.1248
2	5.37	Chloride	6.219	26.204	15.5937
3	6.76	Nitrite	2.947	11.818	3.7223
4	8.45	Bromide	0.550	2.029	3.6744
5	9.90	Nitrate	3.326	9.956	3.5860
6	12.65	O.Phos	1.229	2.442	3.5377
7	17.42	Sulfate	7.244	12.412	25.1313



Peak Integration Report

Sample Name:	**MBW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 12:44**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
4	5.49	Chloride	0.007	0.040	0.3799
6	12.77	O.Phos	0.024	0.030	n.a.



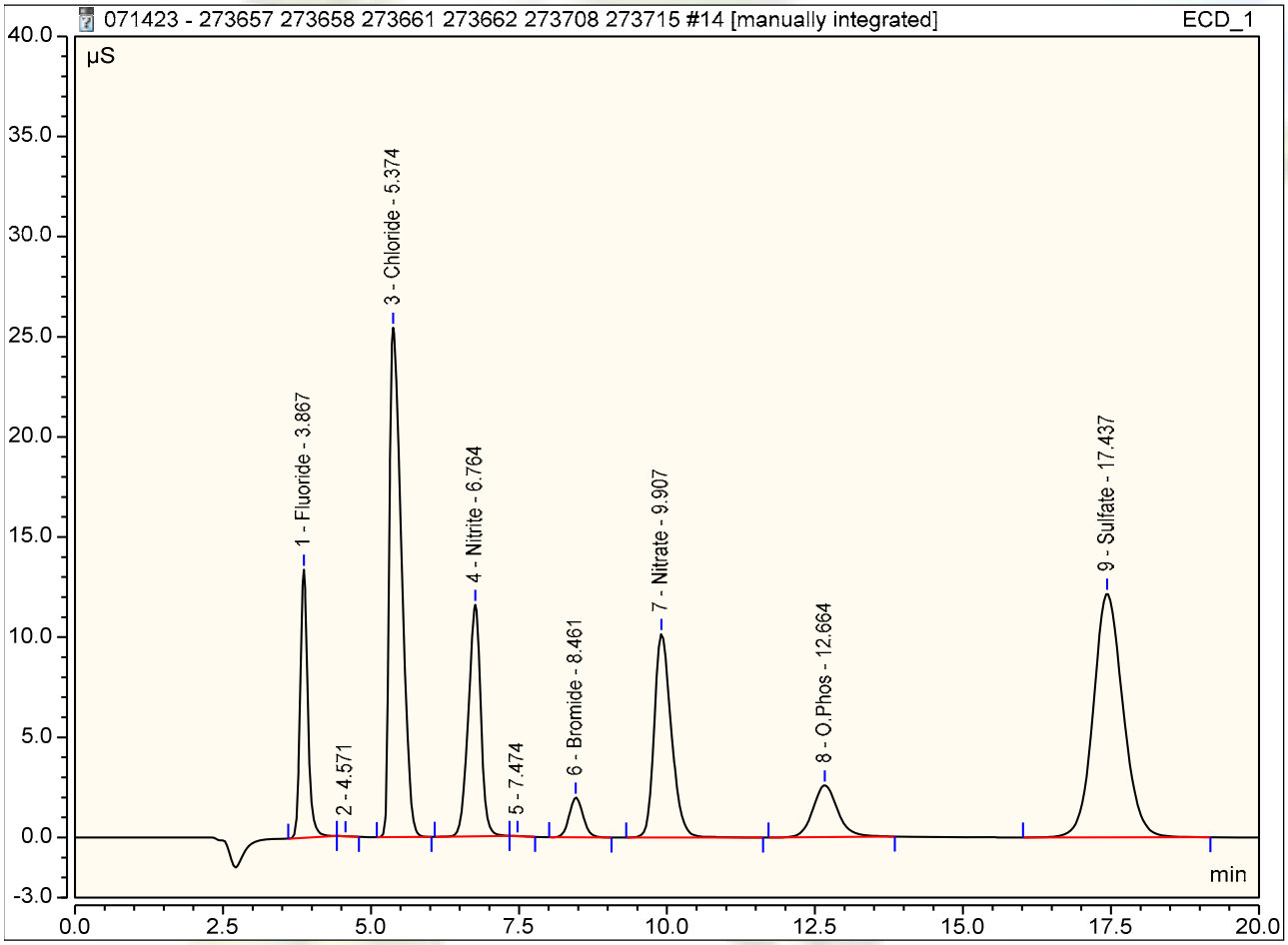
Logged on User: Administrator
Instrument: AQUION_4
Sequence: 071423 - 273657 273658 273661 273662 273708 273715

TMG 07/18/2023

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 16:55**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.977	13.392	3.5201
3	5.37	Chloride	6.076	25.440	15.2443
4	6.76	Nitrite	2.825	11.556	3.5689
6	8.46	Bromide	0.543	1.990	3.6219
7	9.91	Nitrate	3.411	10.172	3.6765
8	12.66	O.Phos	1.264	2.585	3.6482
9	17.44	Sulfate	7.088	12.173	24.6008



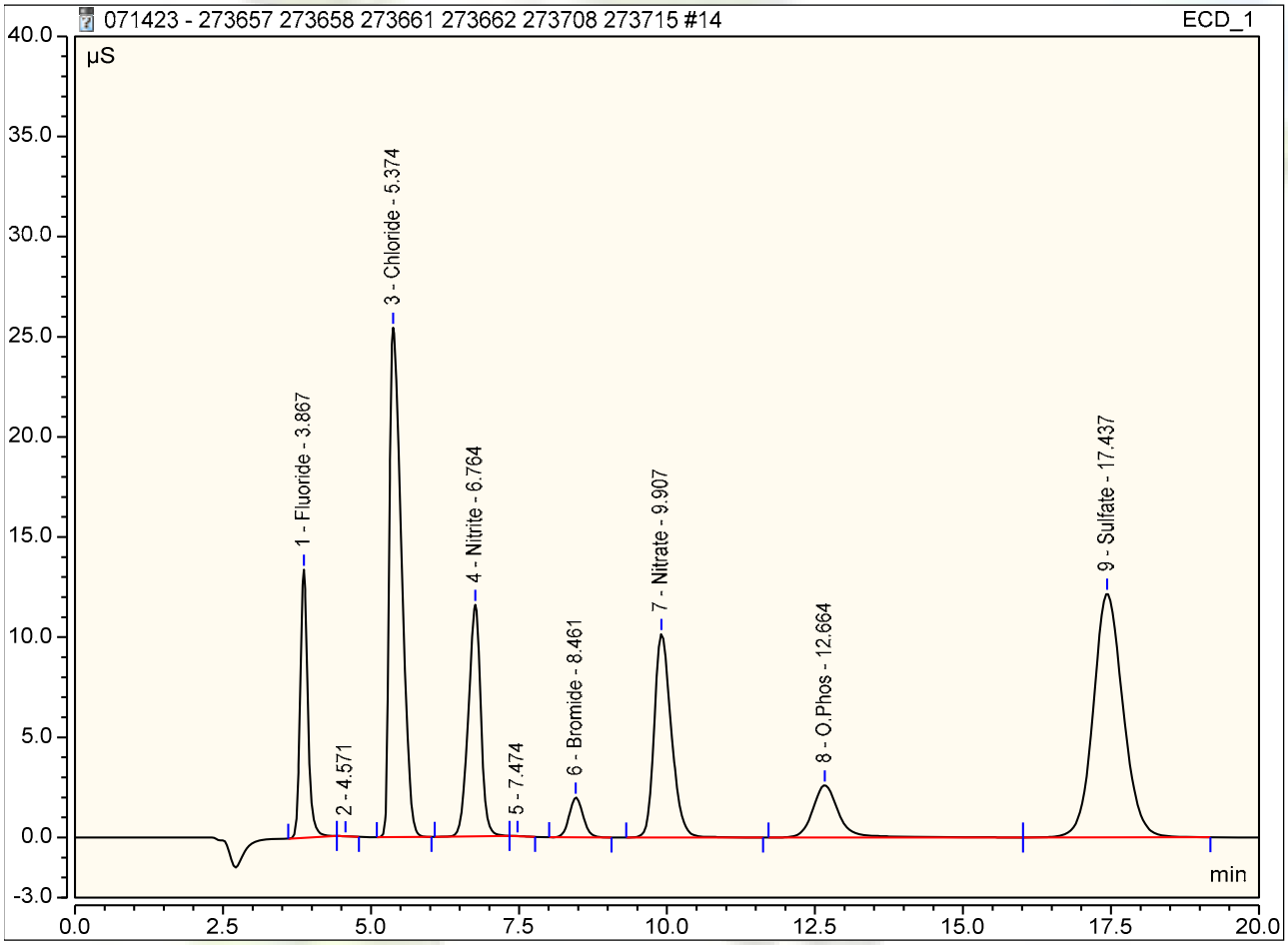
RD 07/18/2023

Chromeleon (c) Dionex 1996-2009
Version 7.2.9.11323

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 16:55**	*Run Time:*	**20.00**

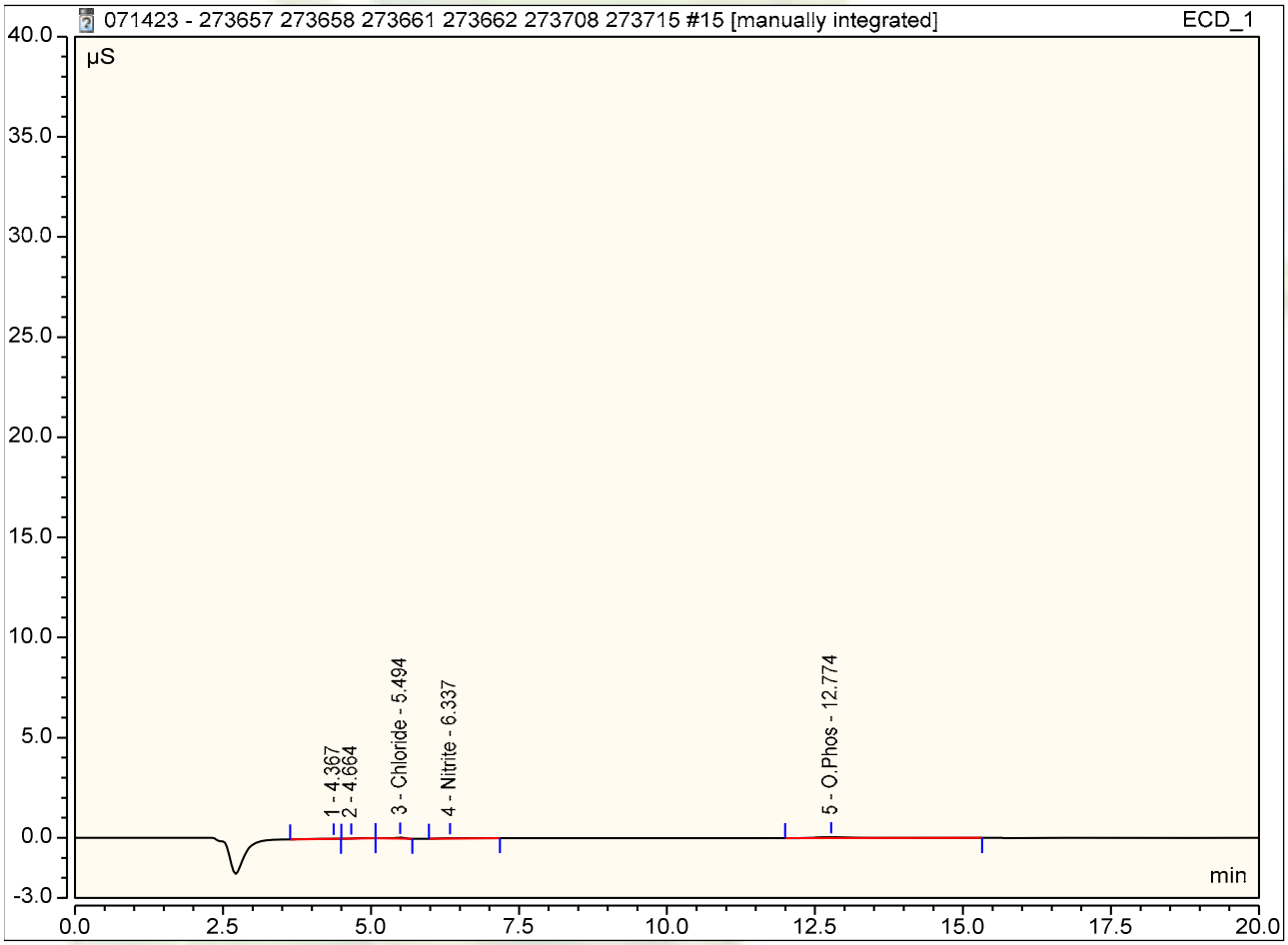
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.977	13.392	3.5201
3	5.37	Chloride	6.076	25.440	15.2443
4	6.76	Nitrite	2.825	11.556	3.5689
6	8.46	Bromide	0.543	1.990	3.6219
7	9.91	Nitrate	3.411	10.172	3.6765
8	12.66	O.Phos	1.349	2.607	3.9164
9	17.44	Sulfate	7.088	12.173	24.6008



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 17:18**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	5.49	Chloride	0.010	0.046	0.3860
4	6.34	Nitrite	0.017	0.027	0.0556
5	12.77	O.Phos	0.043	0.051	n.a.

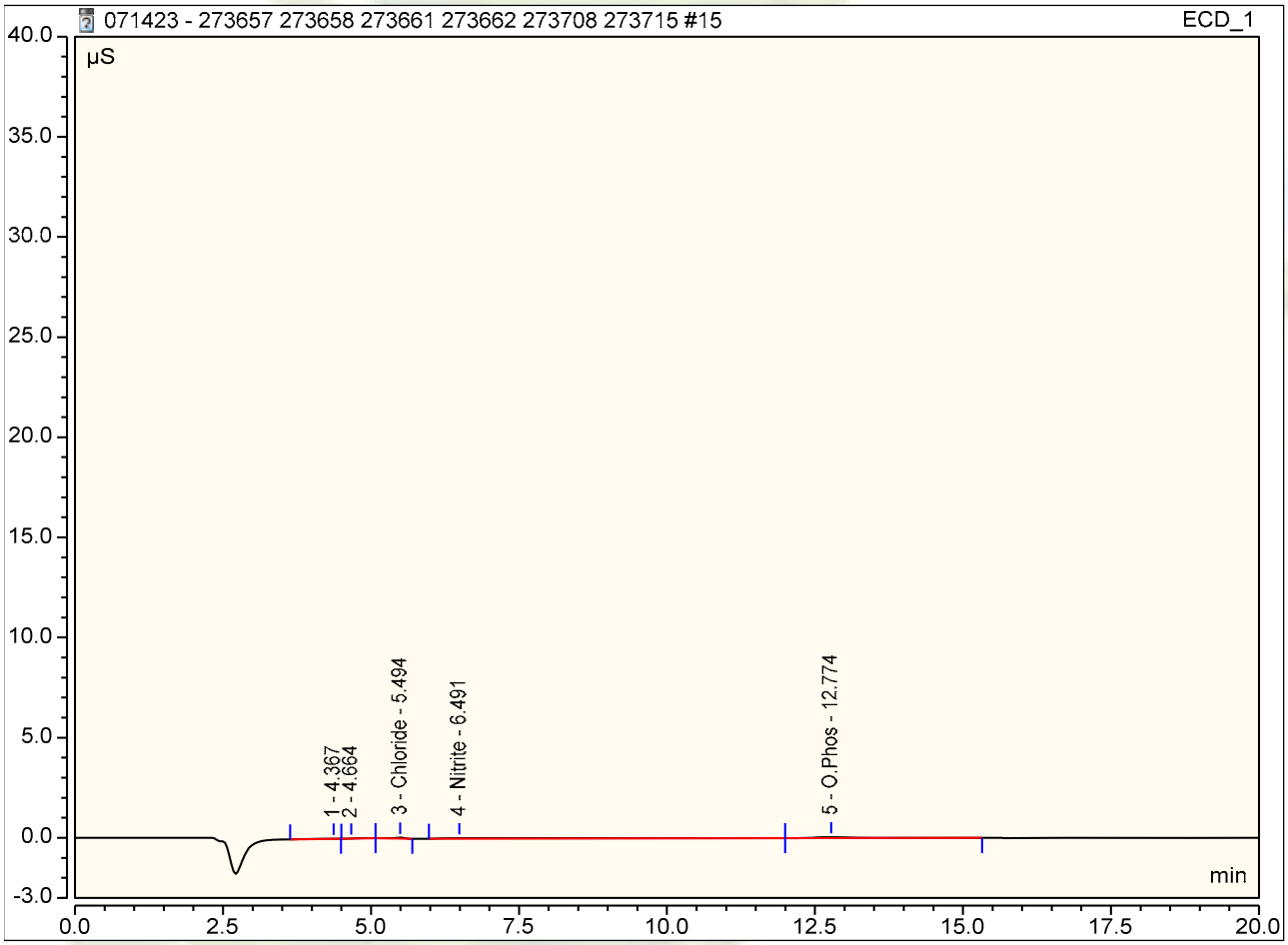


RD 07/18/2023

Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 17:18**	*Run Time:*	**20.00**

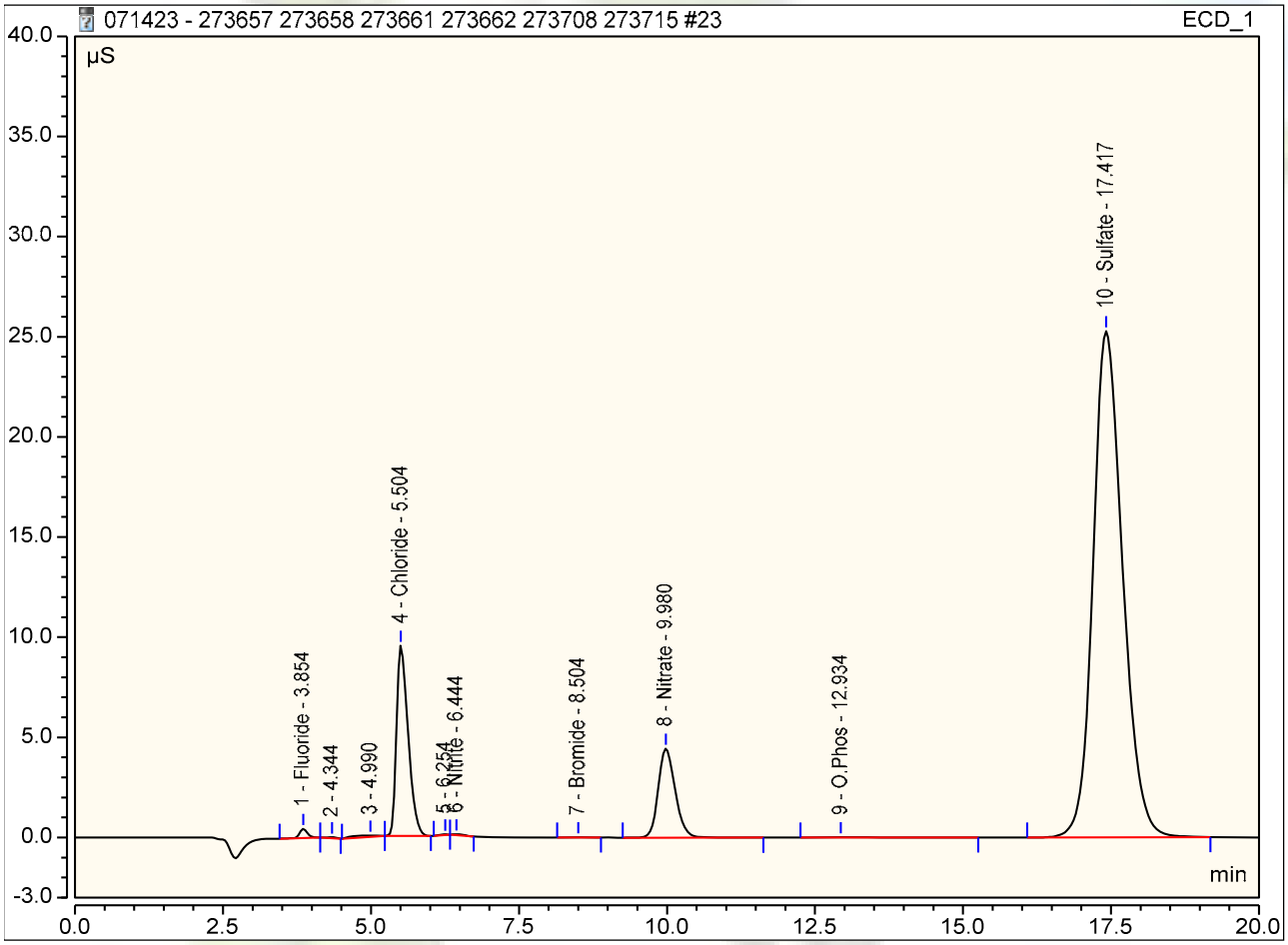
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	5.49	Chloride	0.010	0.046	0.3860
4	6.49	Nitrite	0.123	0.038	0.1883
5	12.77	O.Phos	0.043	0.051	n.a.



Peak Integration Report

Sample Name:	**1347758**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 20:21**	*Run Time:*	**20.00**

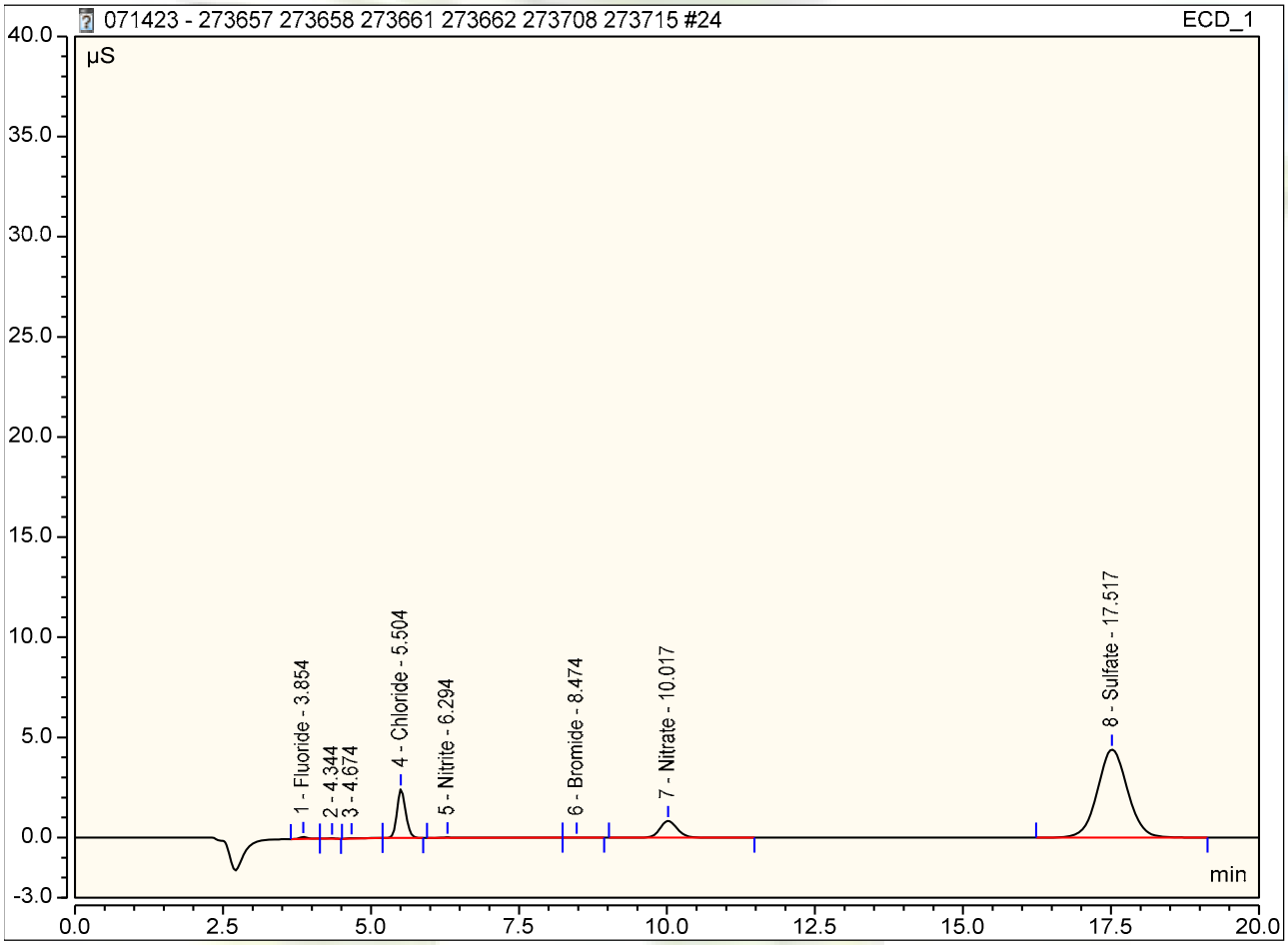
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	0.070	0.458	0.1538
4	5.50	Chloride	2.165	9.493	5.6655
6	6.44	Nitrite	0.009	0.041	0.0450
7	8.50	Bromide	0.006	0.021	0.0323
8	9.98	Nitrate	1.482	4.451	1.6265
9	12.93	O.Phos	0.026	0.024	n.a.
10	17.42	Sulfate	14.680	25.279	50.3249



Peak Integration Report

Sample Name:	**1347758X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 20:44**	*Run Time:*	**20.00**

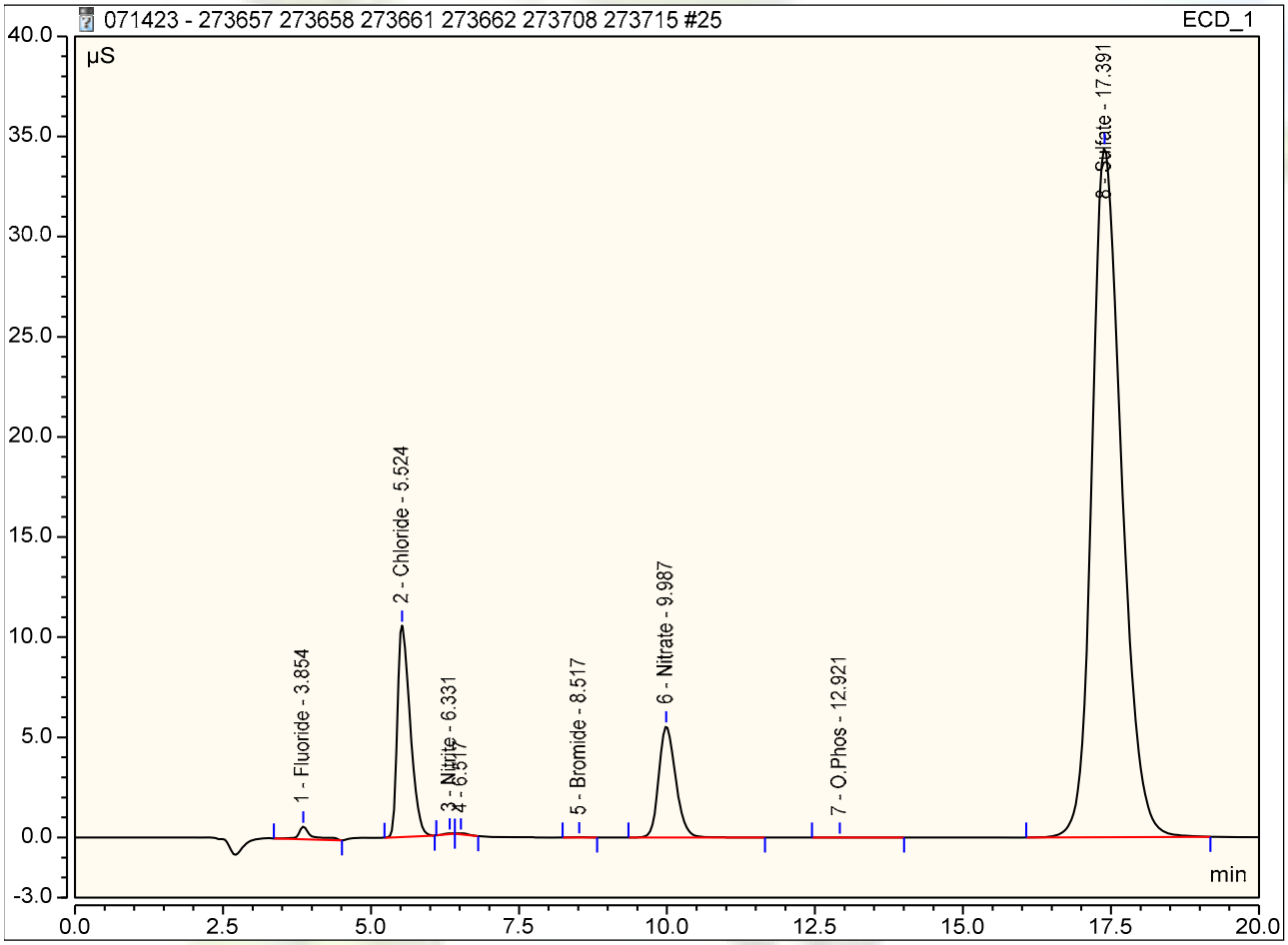
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	0.014	0.095	0.0540
4	5.50	Chloride	0.416	2.435	1.3808
5	6.29	Nitrite	0.023	0.028	0.0621
6	8.47	Bromide	0.001	0.005	0.0038
7	10.02	Nitrate	0.288	0.840	0.3569
8	17.52	Sulfate	2.605	4.395	9.4155



Peak Integration Report

Sample Name:	**1347759**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 21:07**	*Run Time:*	**20.00**

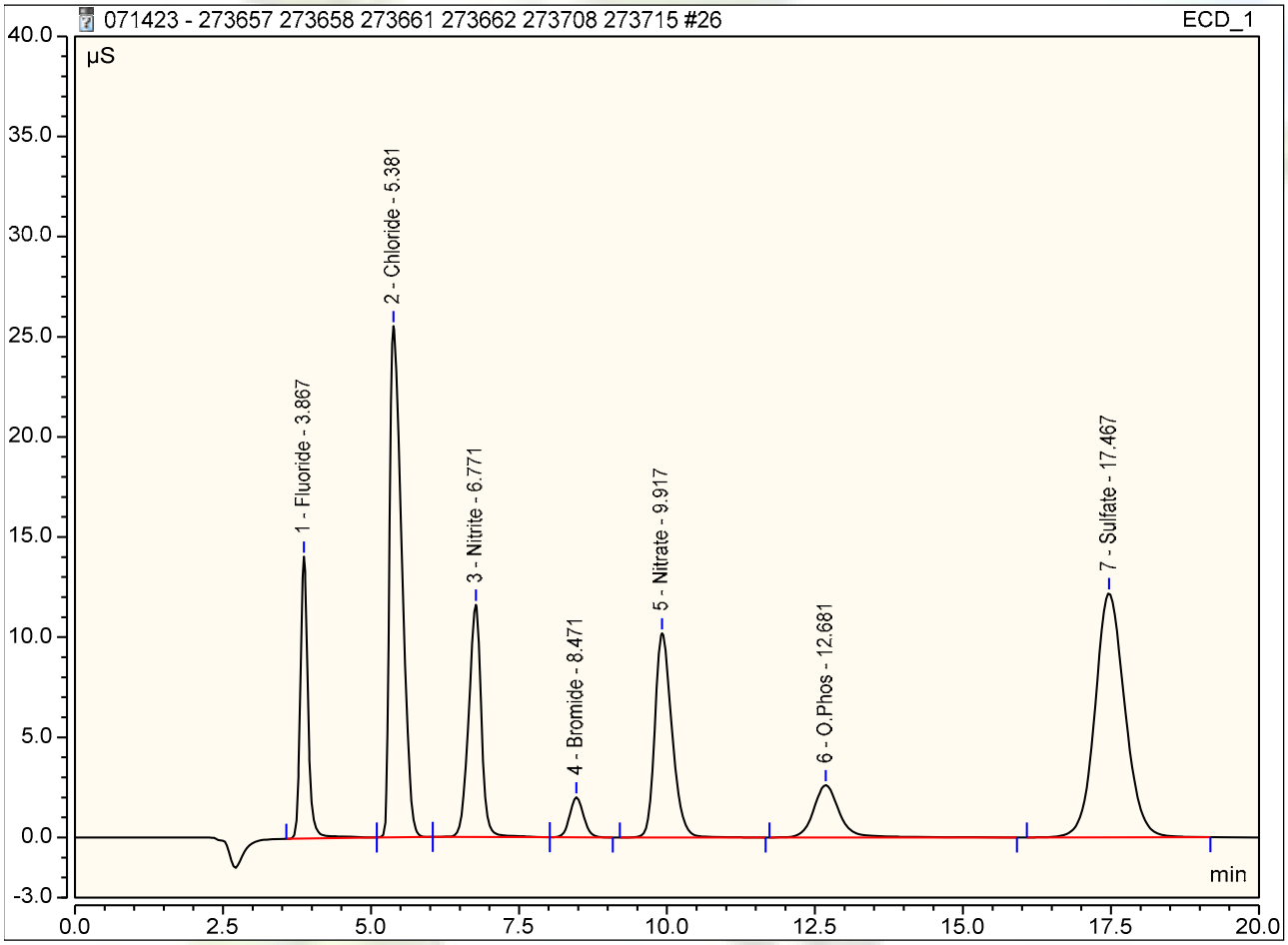
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	0.161	0.638	0.3138
2	5.52	Chloride	2.637	10.555	6.8219
3	6.33	Nitrite	0.006	0.036	0.0413
5	8.52	Bromide	0.005	0.019	0.0255
6	9.99	Nitrate	1.848	5.561	2.0155
7	12.92	O.Phos	0.003	0.005	n.a.
8	17.39	Sulfate	20.070	34.407	68.5855



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 21:30**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	2.100	14.090	3.7374
2	5.38	Chloride	6.113	25.525	15.3341
3	6.77	Nitrite	2.877	11.605	3.6351
4	8.47	Bromide	0.543	2.001	3.6274
5	9.92	Nitrate	3.414	10.197	3.6799
6	12.68	O.Phos	1.333	2.611	3.8656
7	17.47	Sulfate	7.113	12.191	24.6869

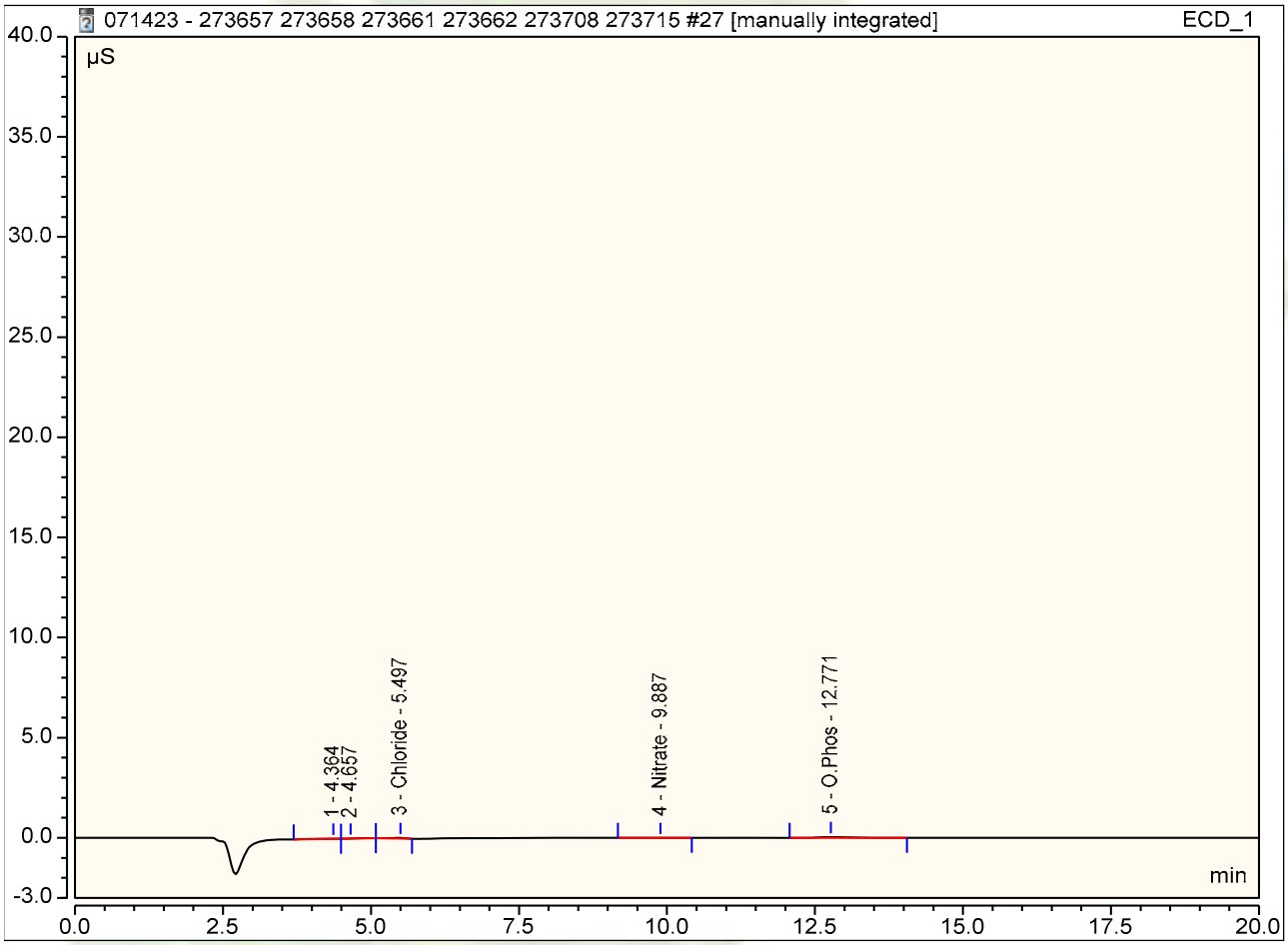


TMG 07/18/2023

Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 21:52**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	5.50	Chloride	0.009	0.042	0.3843
4	9.89	Nitrate	0.001	0.002	0.0509
5	12.77	O.Phos	0.028	0.045	n.a.

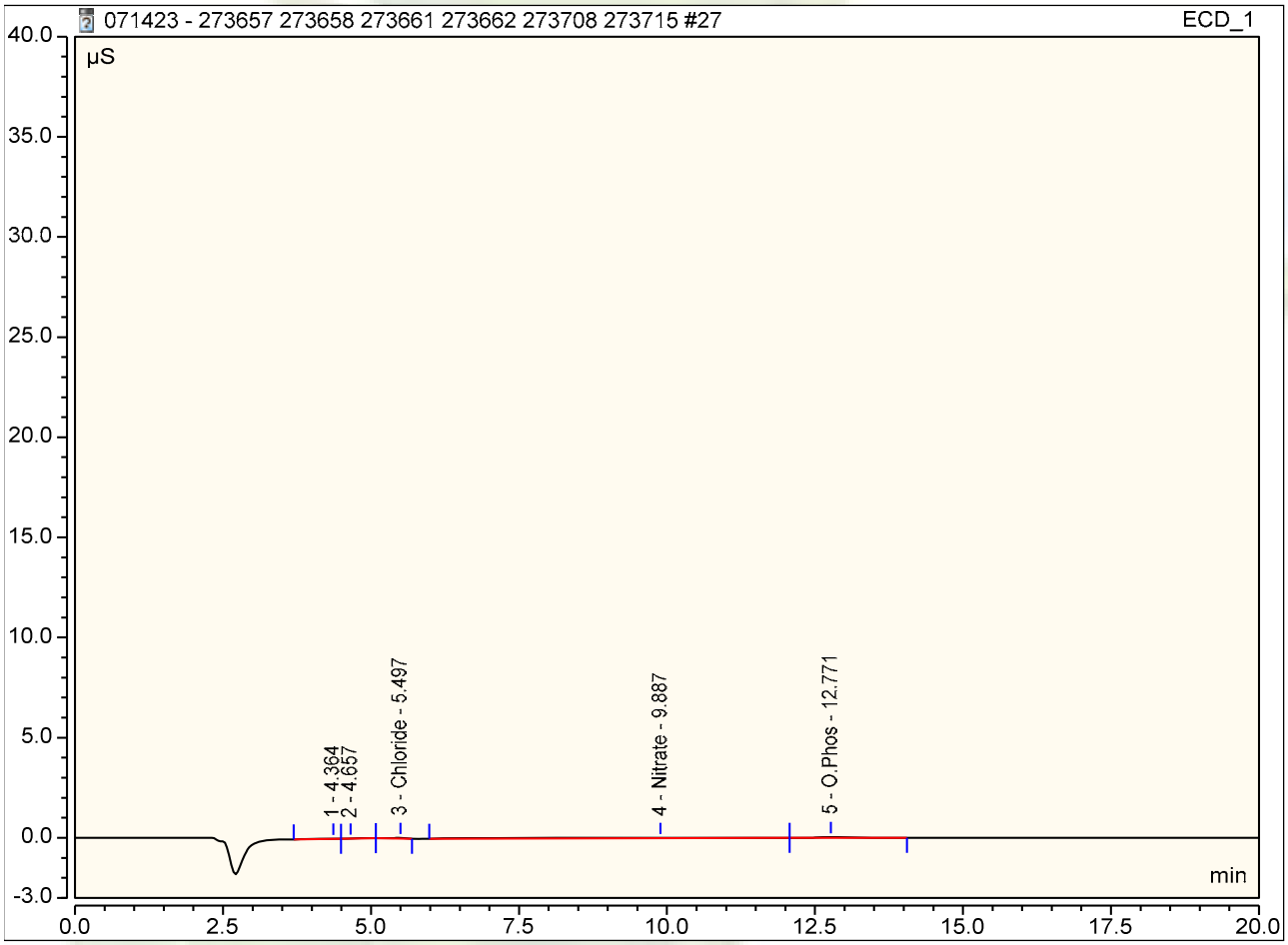


RD 07/18/2023

Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 21:52**	*Run Time:*	**20.00**

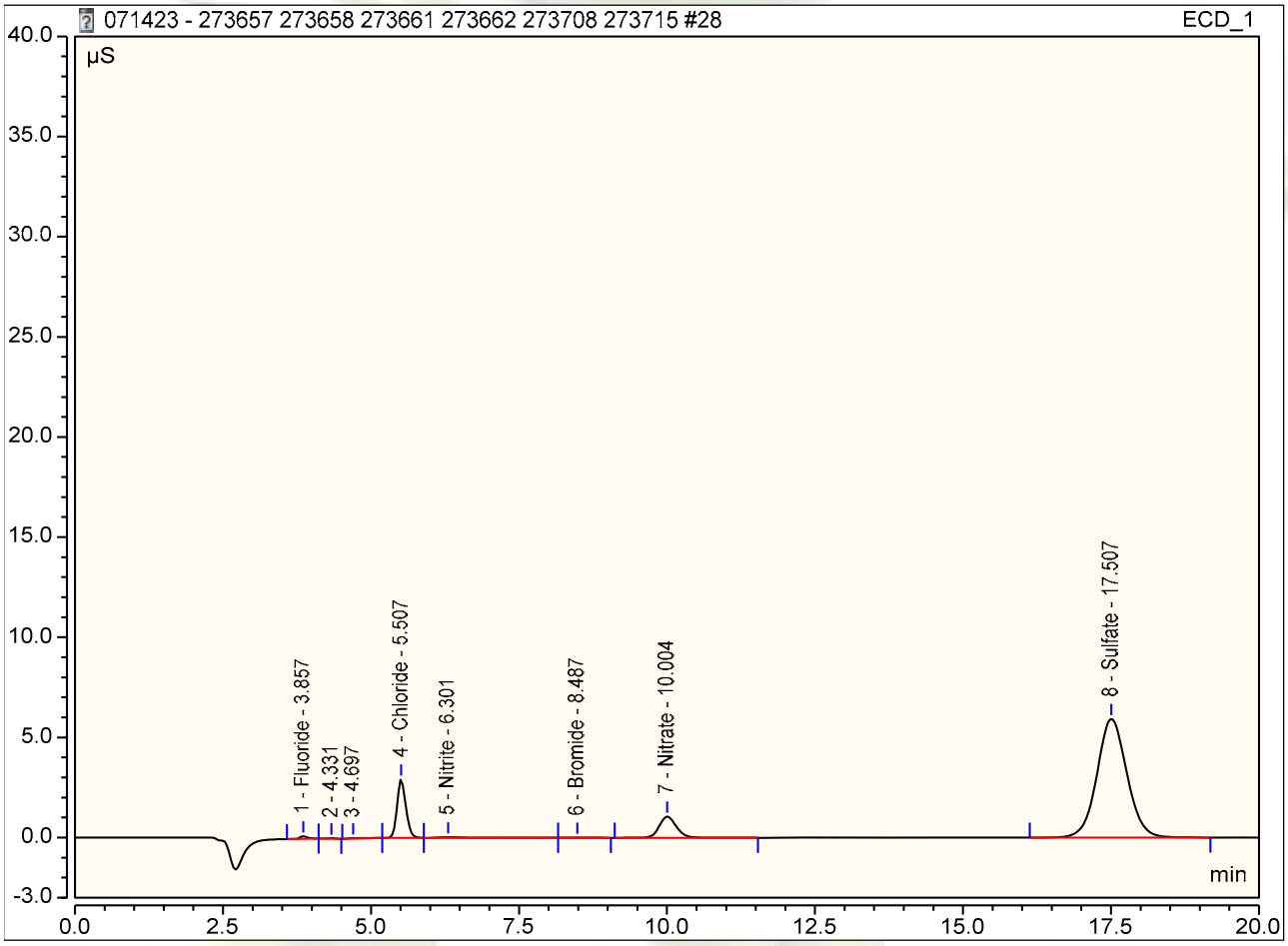
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	5.50	Chloride	0.009	0.042	0.3843
4	9.89	Nitrate	0.137	0.021	0.1960
5	12.77	O.Phos	0.028	0.045	n.a.



Peak Integration Report

Sample Name:	**1347759X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 22:15**	*Run Time:*	**20.00**

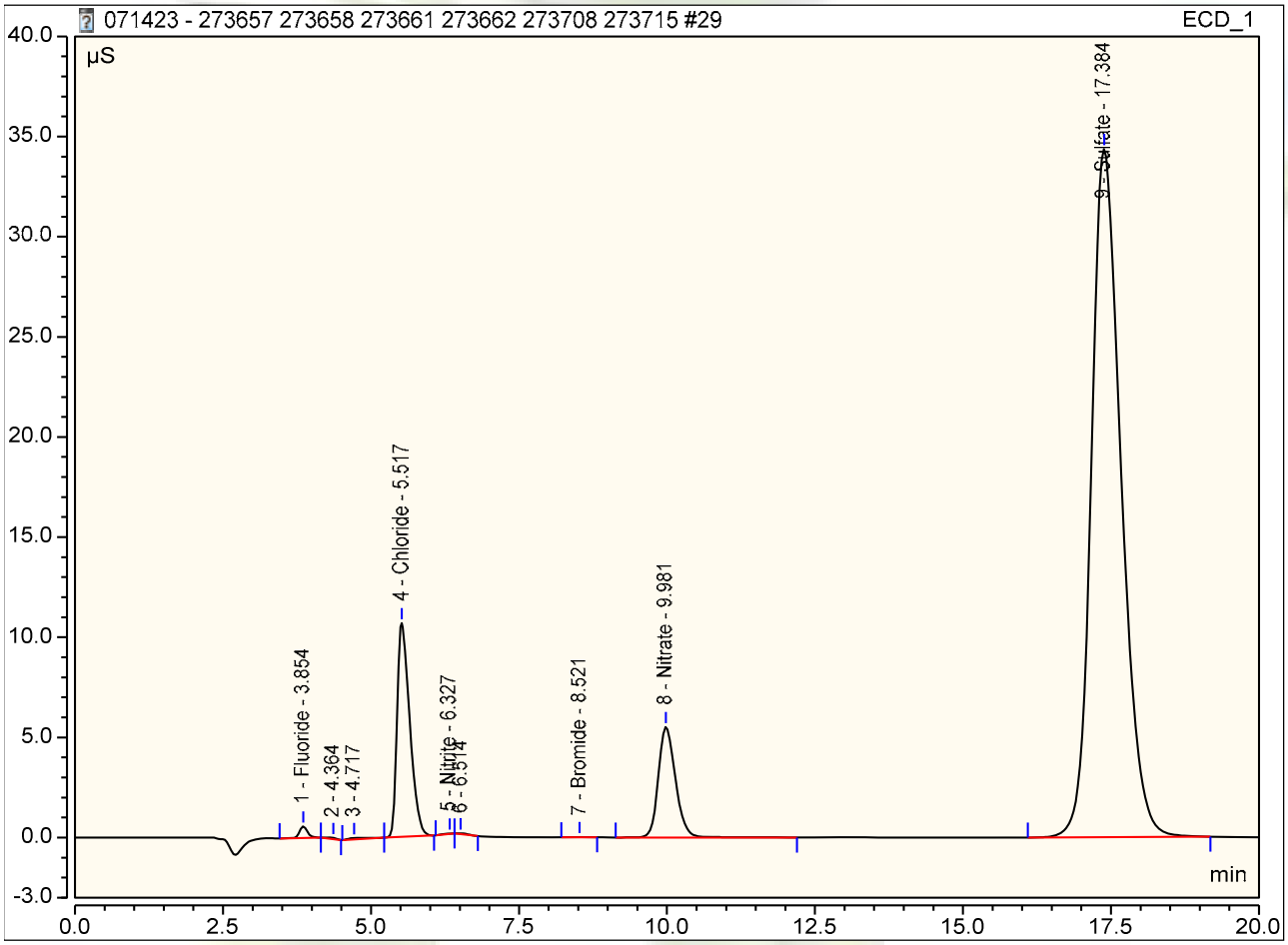
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	0.017	0.121	0.0603
4	5.51	Chloride	0.508	2.928	1.6053
5	6.30	Nitrite	0.025	0.040	0.0653
6	8.49	Bromide	0.002	0.005	0.0076
7	10.00	Nitrate	0.358	1.060	0.4312
8	17.51	Sulfate	3.492	5.926	12.4179



Peak Integration Report

Sample Name:	**DUP1347759**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 22:38**	*Run Time:*	**20.00**

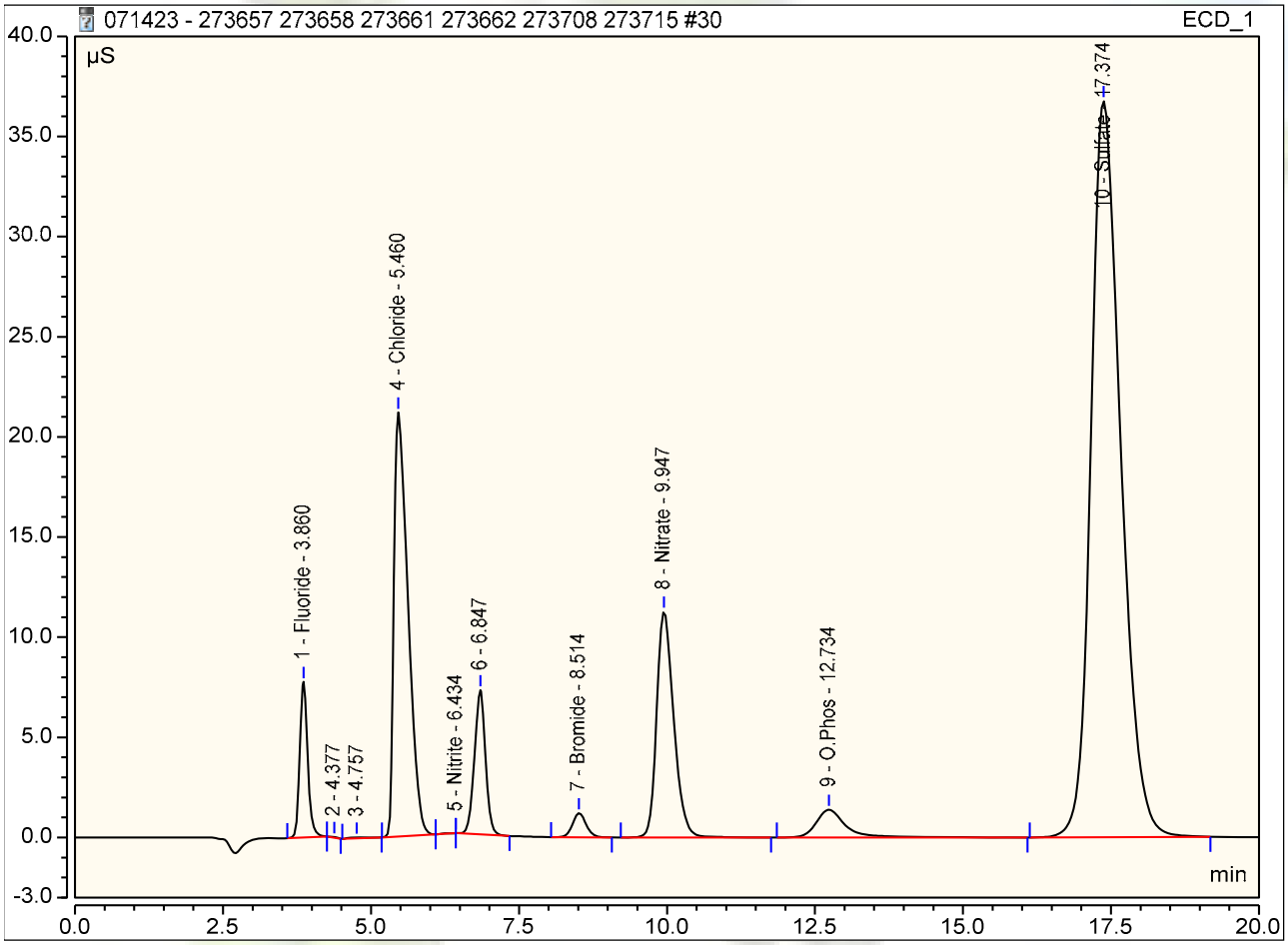
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.85	Fluoride	0.091	0.582	0.1901
4	5.52	Chloride	2.645	10.679	6.8402
5	6.33	Nitrite	0.006	0.034	0.0410
7	8.52	Bromide	0.005	0.018	0.0248
8	9.98	Nitrate	1.854	5.521	2.0209
9	17.38	Sulfate	20.062	34.365	68.5569



Peak Integration Report

Sample Name:	**MSW1347759**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 23:01**	*Run Time:*	**20.00**

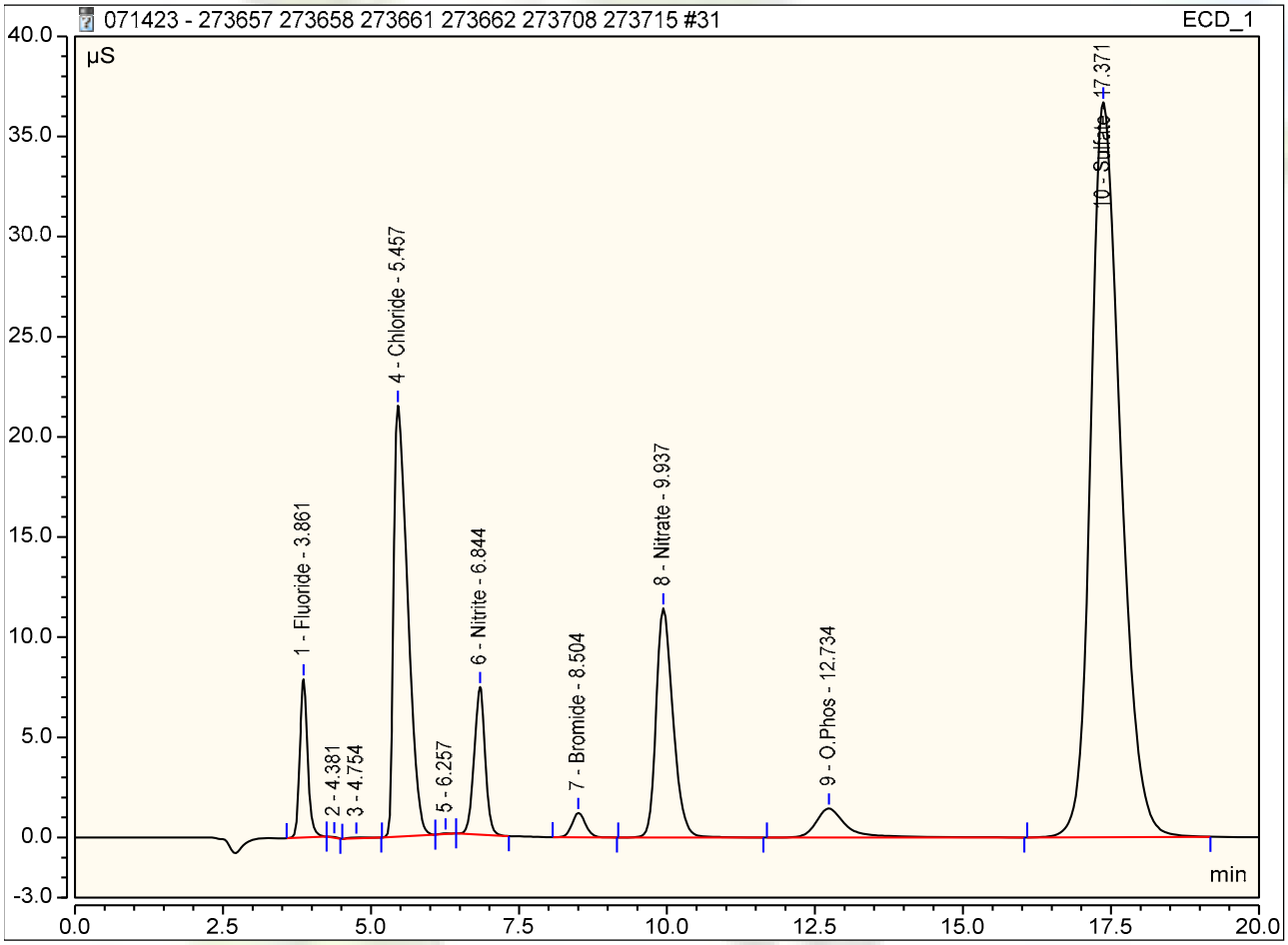
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	1.190	7.763	2.1301
4	5.46	Chloride	5.857	21.171	14.7074
5	6.43	Nitrite	0.004	0.000	0.0392
7	8.51	Bromide	0.322	1.198	2.1460
8	9.95	Nitrate	3.765	11.285	4.0530
9	12.73	O.Phos	0.817	1.387	2.2419
10	17.37	Sulfate	21.484	36.755	73.3767



Peak Integration Report

Sample Name:	**MSDW1347759**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**14-Jul-2023 / 23:24**	*Run Time:*	**20.00**

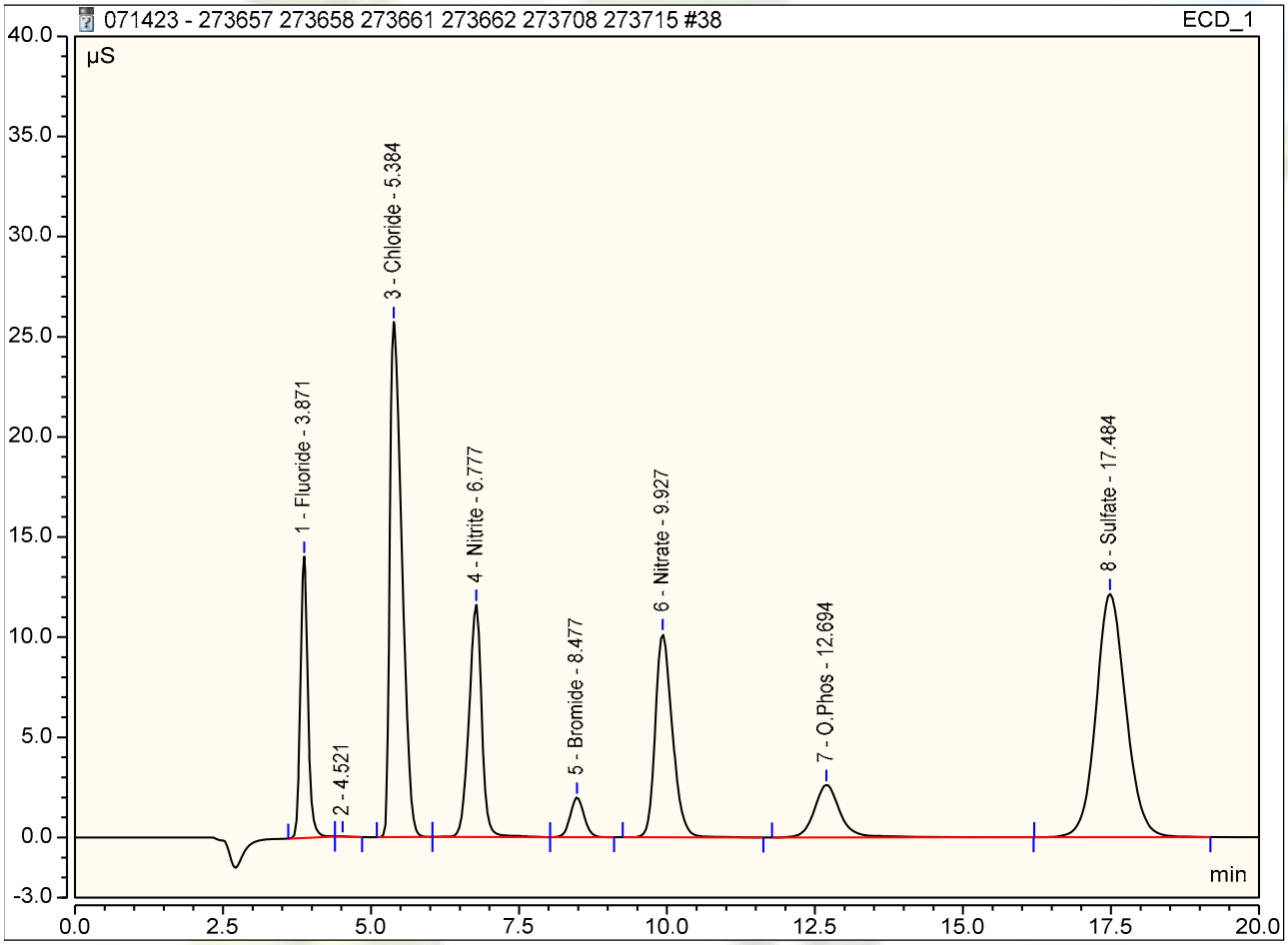
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.86	Fluoride	1.205	7.903	2.1561
4	5.46	Chloride	5.905	21.511	14.8241
6	6.84	Nitrite	1.579	7.378	2.0098
7	8.50	Bromide	0.326	1.225	2.1731
8	9.94	Nitrate	3.790	11.444	4.0802
9	12.73	O.Phos	0.868	1.450	2.4033
10	17.37	Sulfate	21.478	36.681	73.3551



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**15-Jul-2023 / 02:04**	*Run Time:*	**20.00**

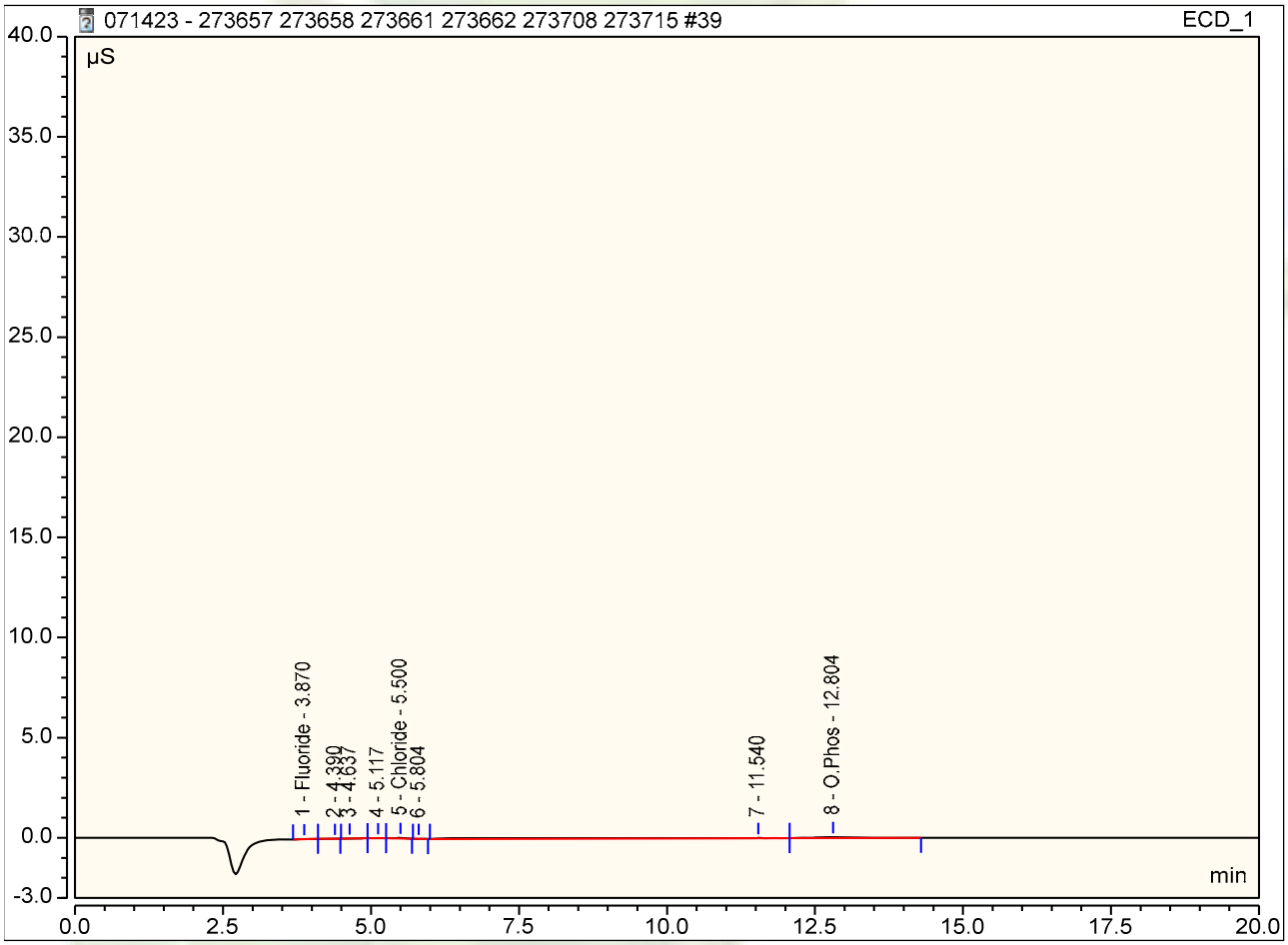
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	2.037	14.045	3.6264
3	5.38	Chloride	6.097	25.720	15.2946
4	6.78	Nitrite	2.902	11.599	3.6656
5	8.48	Bromide	0.540	1.984	3.6067
6	9.93	Nitrate	3.404	10.155	3.6694
7	12.69	O.Phos	1.341	2.622	3.8914
8	17.48	Sulfate	7.096	12.144	24.6301



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**15-Jul-2023 / 02:27**	*Run Time:*	**20.00**

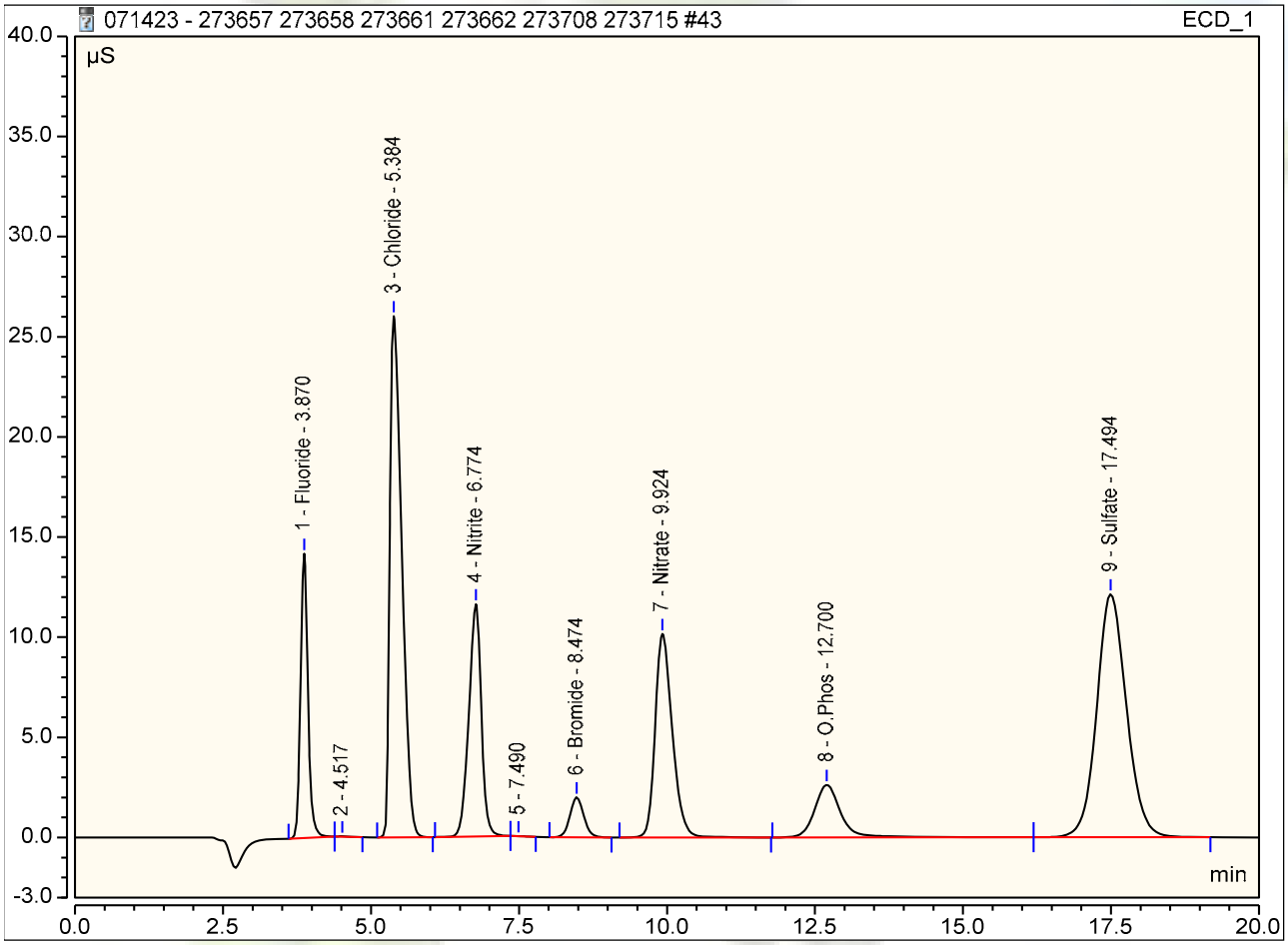
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	0.001	0.004	0.0311
5	5.50	Chloride	0.007	0.041	0.3804
8	12.80	O.Phos	0.032	0.046	n.a.



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**15-Jul-2023 / 03:58**	*Run Time:*	**20.00**

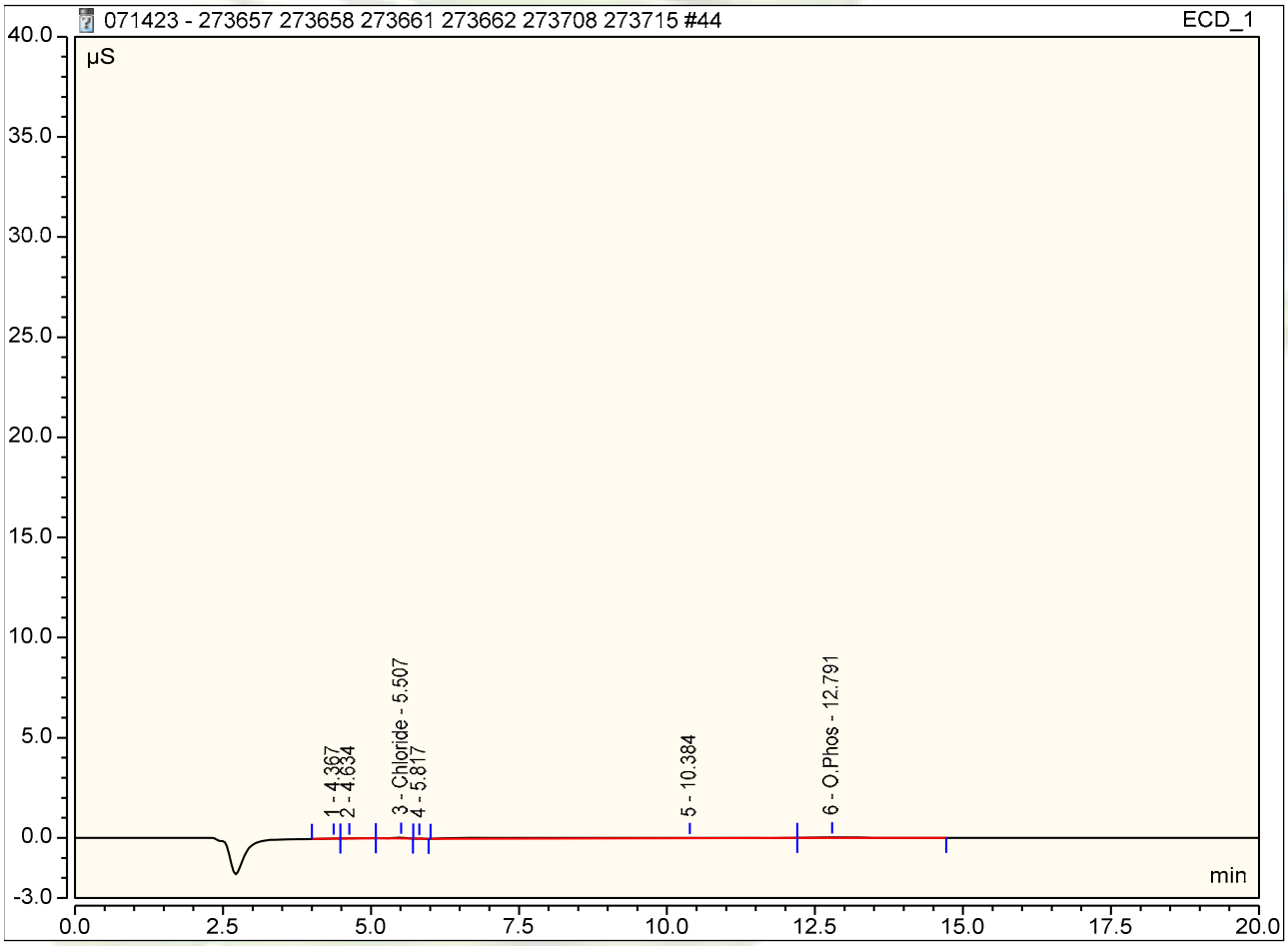
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	2.042	14.191	3.6347
3	5.38	Chloride	6.103	26.026	15.3099
4	6.77	Nitrite	2.832	11.598	3.5782
6	8.47	Bromide	0.541	1.992	3.6104
7	9.92	Nitrate	3.403	10.156	3.6684
8	12.70	O.Phos	1.351	2.624	3.9215
9	17.49	Sulfate	7.085	12.136	24.5916



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**15-Jul-2023 / 04:21**	*Run Time:*	**20.00**

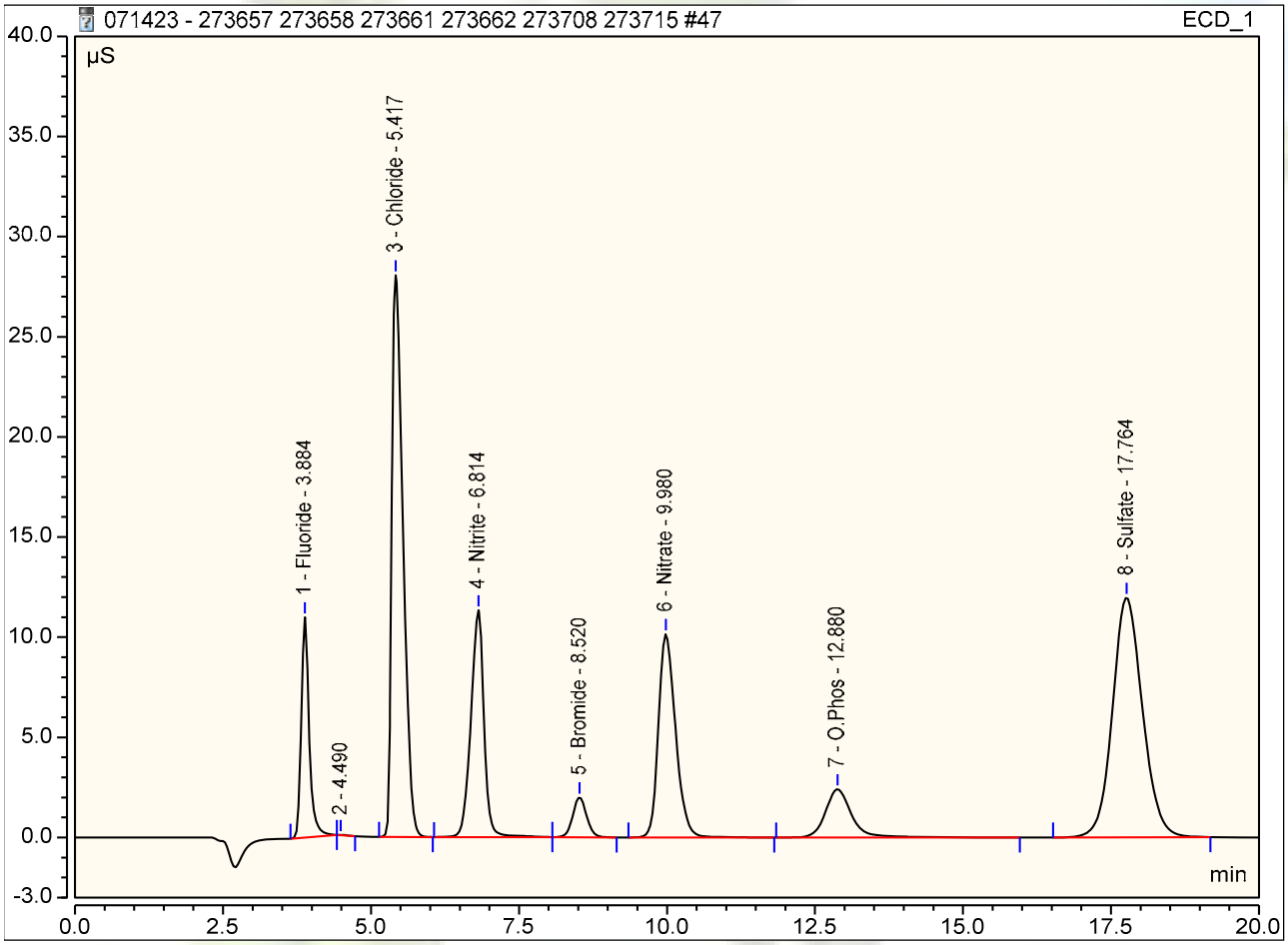
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	5.51	Chloride	0.010	0.045	0.3862
6	12.79	O.Phos	0.031	0.039	n.a.



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 09:35**	*Run Time:*	**20.00**

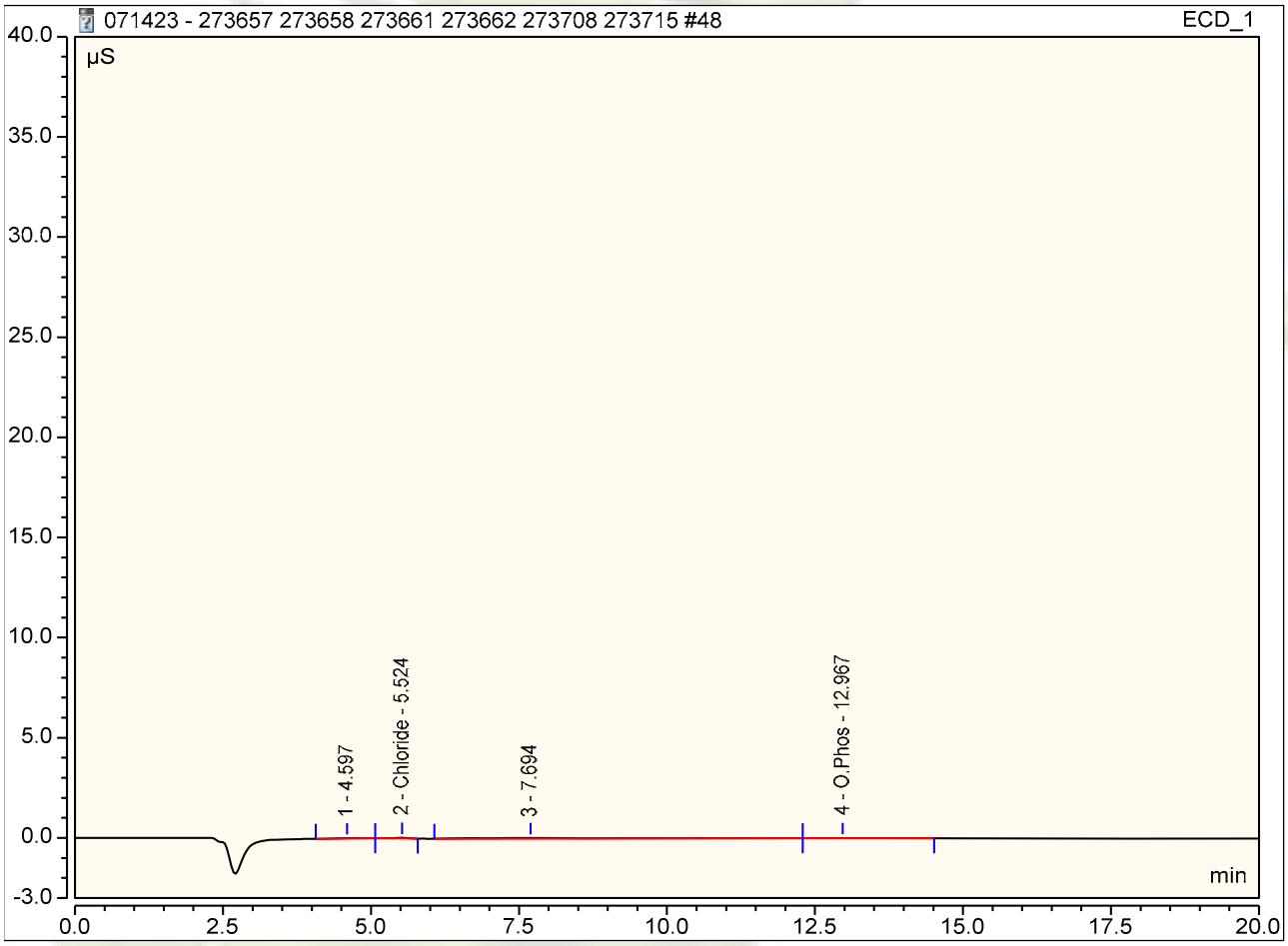
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.88	Fluoride	1.694	10.999	3.0194
3	5.42	Chloride	6.153	28.051	15.4321
4	6.81	Nitrite	2.900	11.328	3.6630
5	8.52	Bromide	0.541	1.987	3.6140
6	9.98	Nitrate	3.403	10.156	3.6687
7	12.88	O.Phos	1.243	2.408	3.5818
8	17.76	Sulfate	7.042	11.965	24.4478



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 09:58**	*Run Time:*	**20.00**

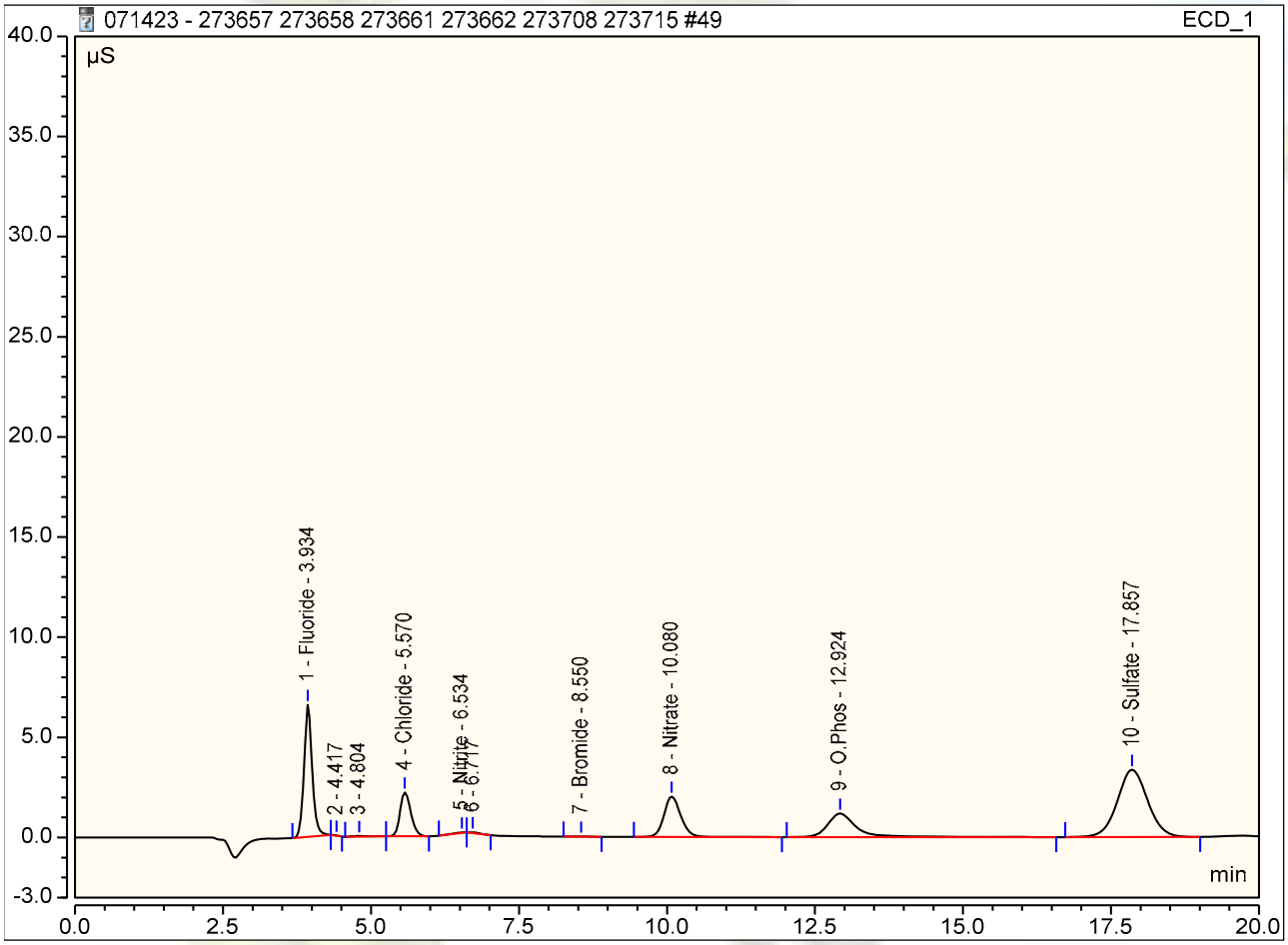
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	5.52	Chloride	0.010	0.039	0.3874
4	12.97	O.Phos	0.020	0.027	n.a.



Peak Integration Report

Sample Name:	**1348146**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 10:21**	*Run Time:*	**20.00**

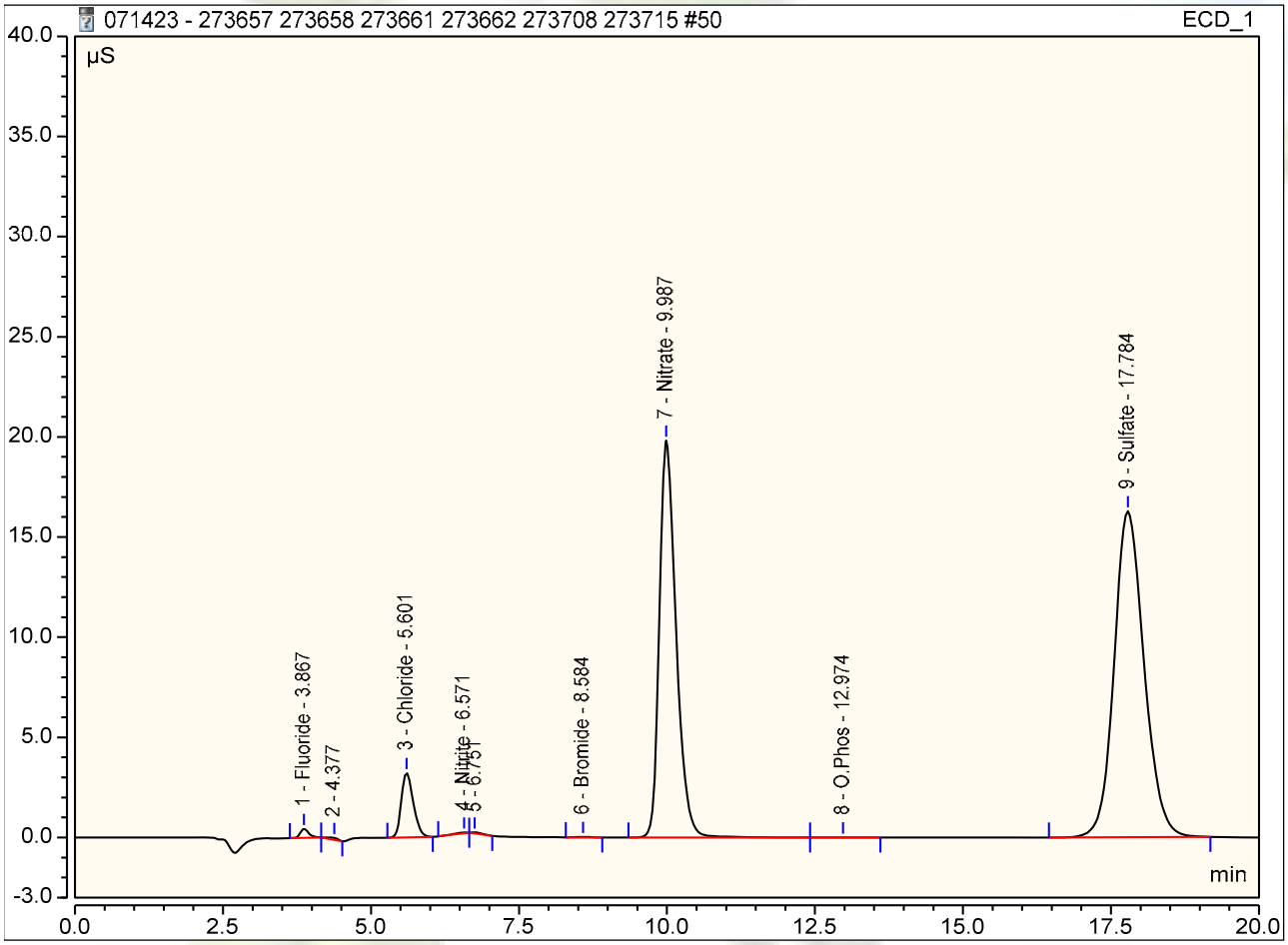
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.93	Fluoride	1.050	6.594	1.8834
4	5.57	Chloride	0.466	2.193	1.5032
5	6.53	Nitrite	0.008	0.036	0.0445
7	8.55	Bromide	0.002	0.008	0.0074
8	10.08	Nitrate	0.666	2.010	0.7583
9	12.92	O.Phos	0.669	1.174	1.7774
10	17.86	Sulfate	1.994	3.351	7.3443



Peak Integration Report

Sample Name:	**1348147**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 10:44**	*Run Time:*	**20.00**

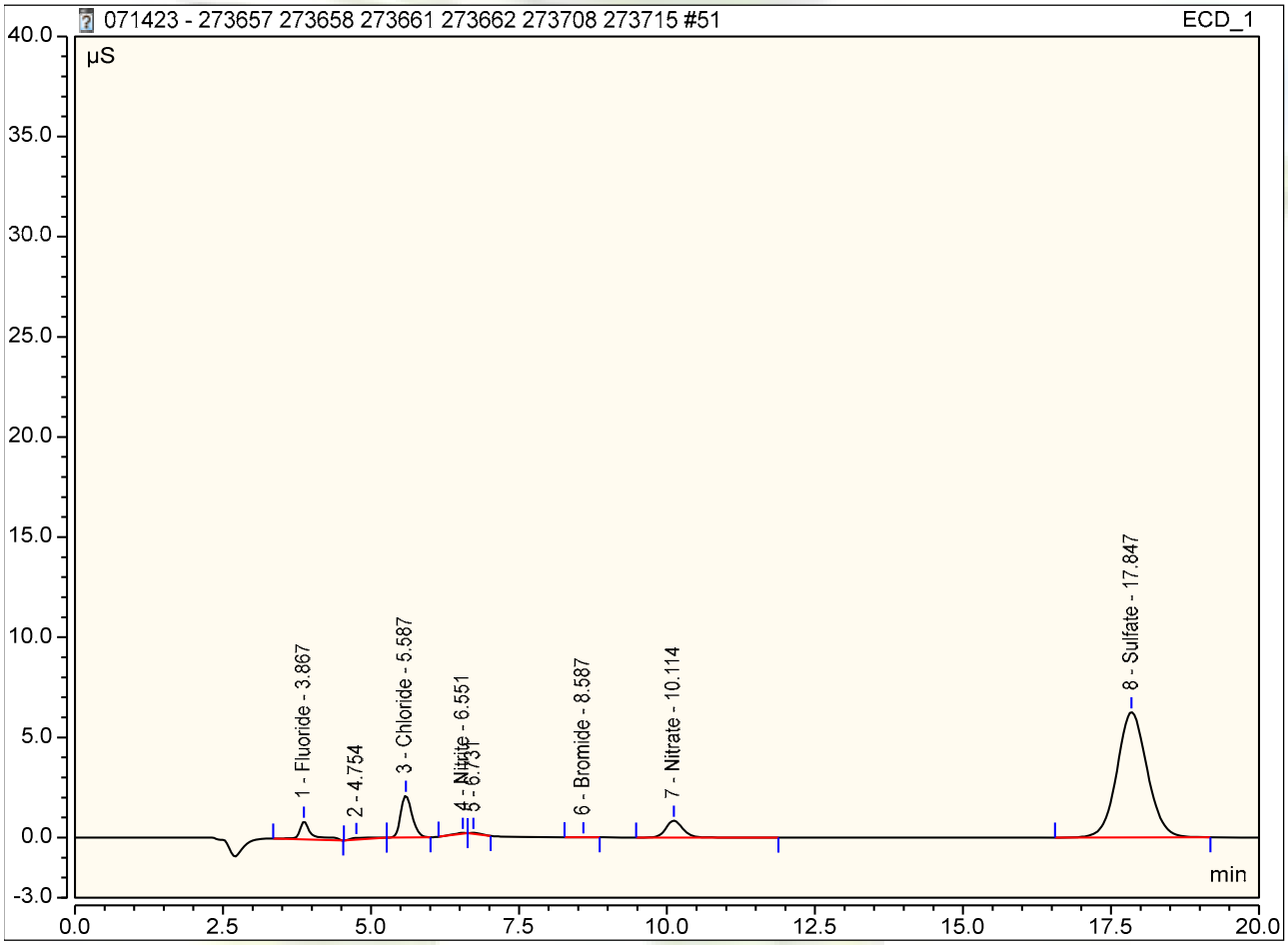
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	0.073	0.447	0.1589
3	5.60	Chloride	0.757	3.216	2.2163
4	6.57	Nitrite	0.011	0.044	0.0479
6	8.58	Bromide	0.007	0.029	0.0428
7	9.99	Nitrate	6.492	19.822	6.9522
8	12.97	O.Phos	0.006	0.012	n.a.
9	17.78	Sulfate	9.554	16.283	32.9589



Peak Integration Report

Sample Name:	**1348148**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 11:07**	*Run Time:*	**20.00**

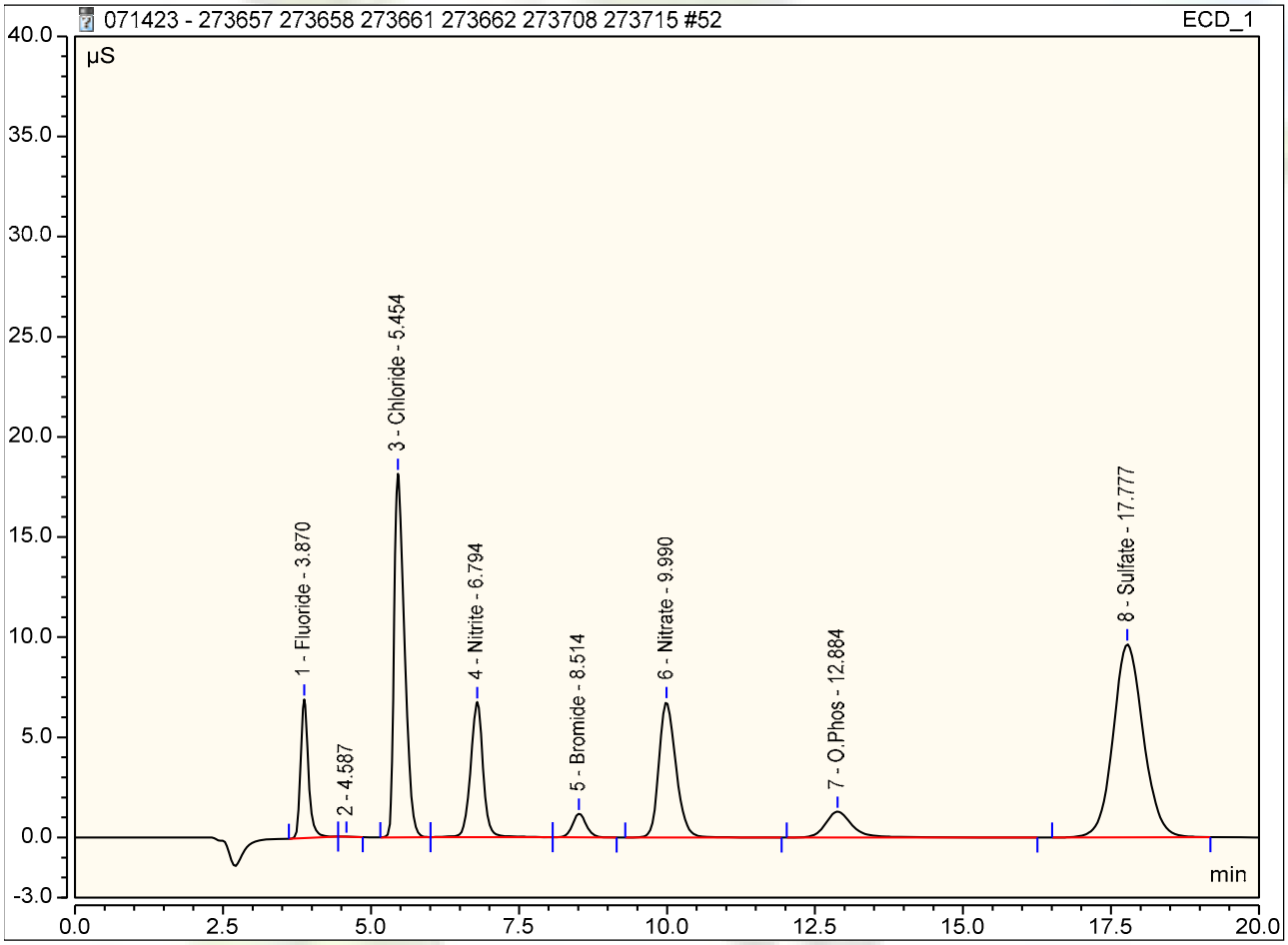
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	0.219	0.899	0.4165
3	5.59	Chloride	0.471	2.091	1.5150
4	6.55	Nitrite	0.010	0.040	0.0463
6	8.59	Bromide	0.001	0.006	0.0036
7	10.11	Nitrate	0.284	0.843	0.3524
8	17.85	Sulfate	3.717	6.254	13.1802



Peak Integration Report

Sample Name:	**MSW1347759X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 11:30**	*Run Time:*	**20.00**

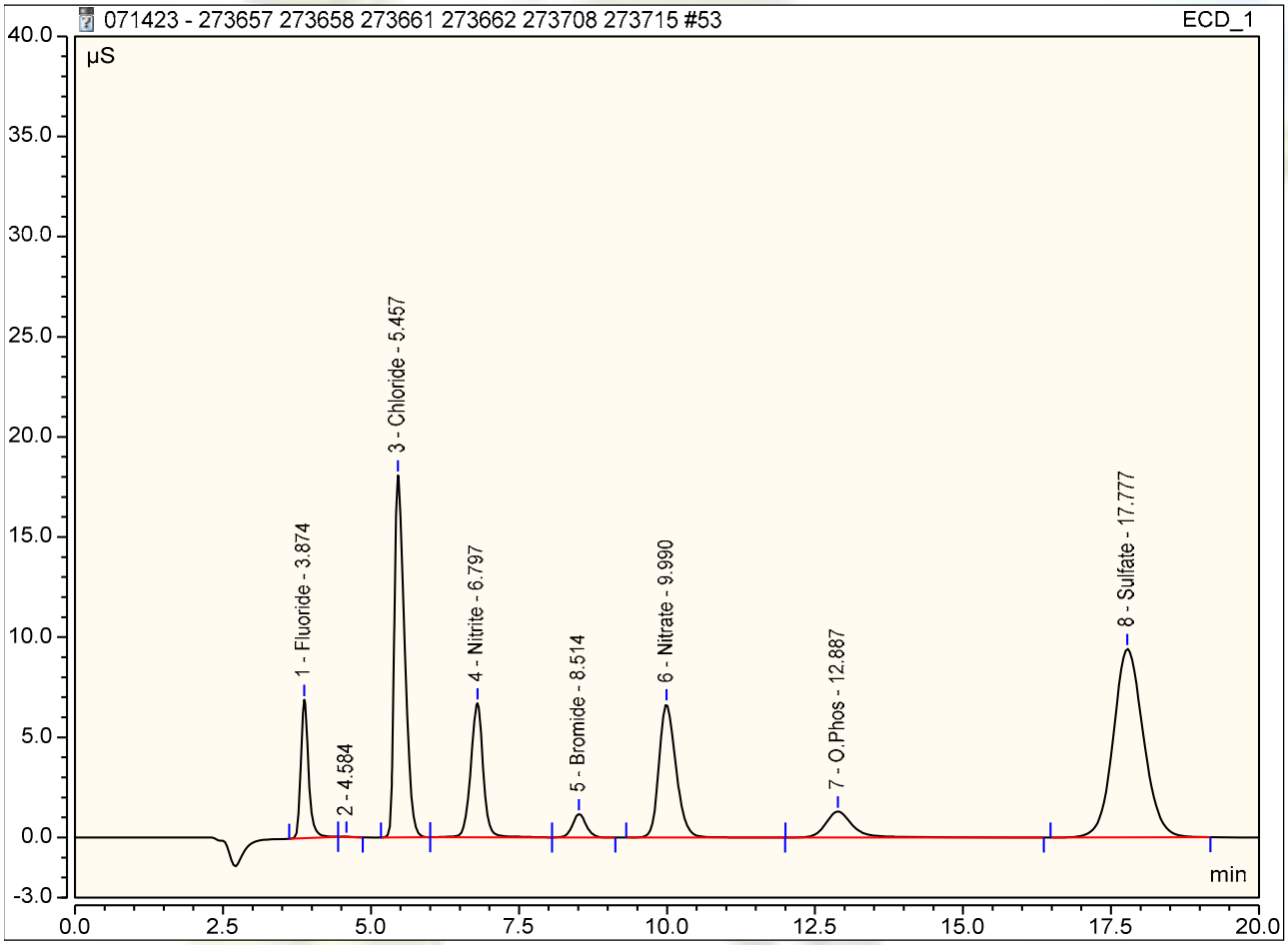
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.048	6.925	1.8803
3	5.45	Chloride	3.725	18.153	9.4848
4	6.79	Nitrite	1.646	6.745	2.0941
5	8.51	Bromide	0.319	1.181	2.1275
6	9.99	Nitrate	2.262	6.769	2.4549
7	12.88	O.Phos	0.694	1.297	1.8556
8	17.78	Sulfate	5.696	9.642	19.8854



Peak Integration Report

Sample Name:	**MSDW1347759X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 11:53**	*Run Time:*	**20.00**

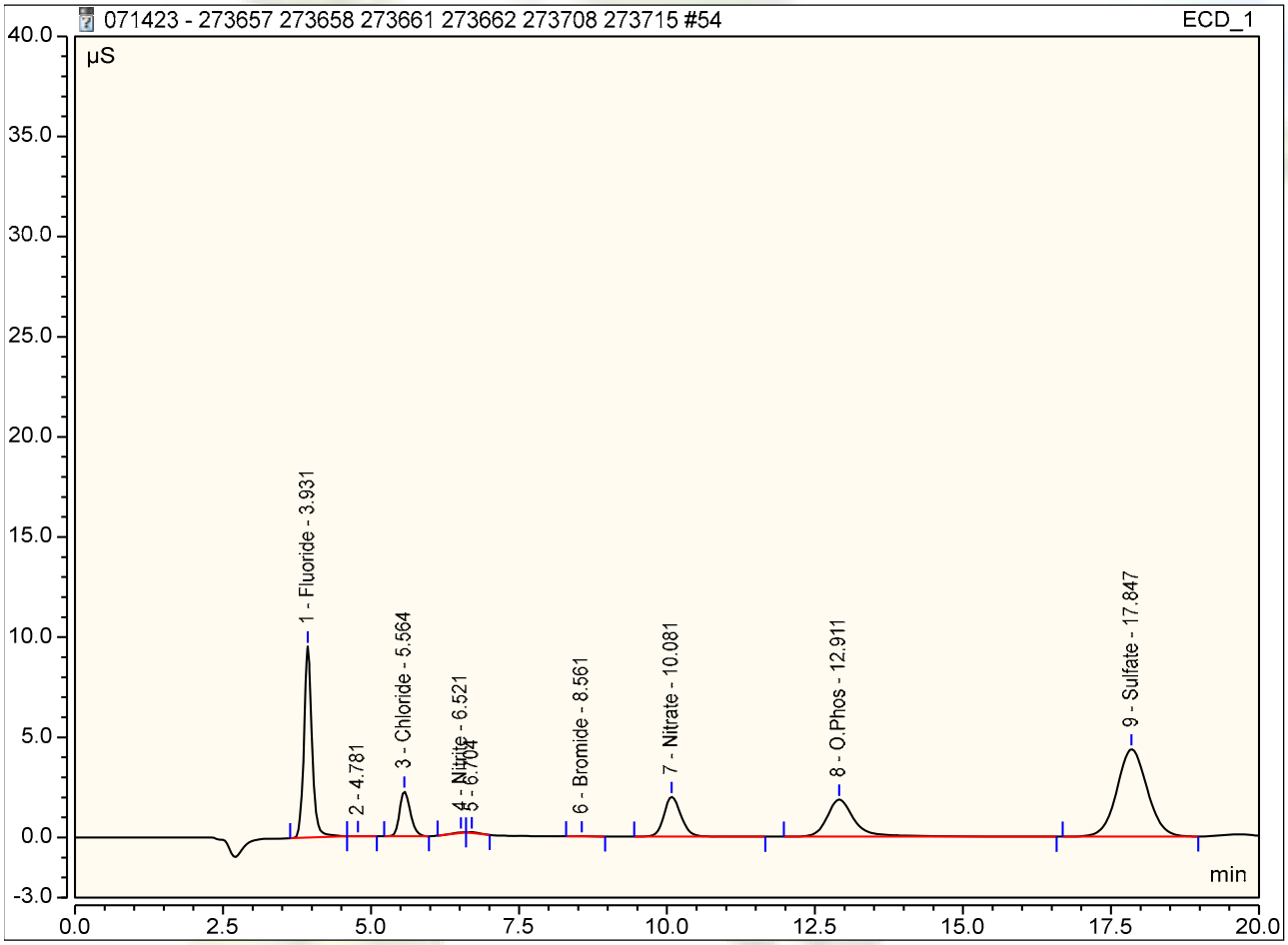
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.038	6.907	1.8612
3	5.46	Chloride	3.669	18.078	9.3490
4	6.80	Nitrite	1.633	6.700	2.0781
5	8.51	Bromide	0.316	1.169	2.1071
6	9.99	Nitrate	2.225	6.657	2.4162
7	12.89	O.Phos	0.714	1.307	1.9175
8	17.78	Sulfate	5.571	9.415	19.4631



Peak Integration Report

Sample Name:	**DUP1348146**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 12:15**	*Run Time:*	**20.00**

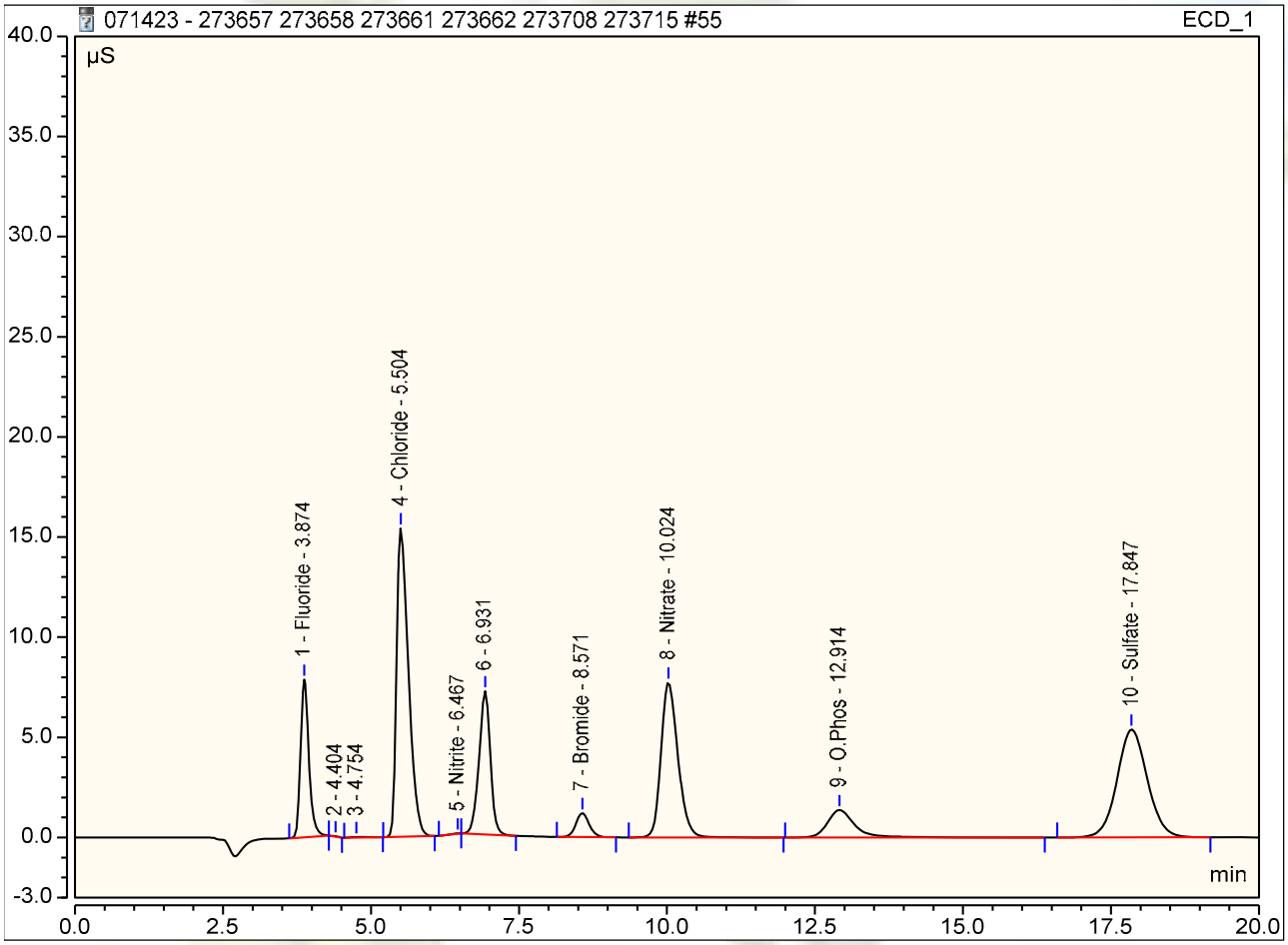
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.93	Fluoride	1.520	9.548	2.7123
3	5.56	Chloride	0.474	2.241	1.5241
4	6.52	Nitrite	0.008	0.035	0.0443
6	8.56	Bromide	0.002	0.008	0.0078
7	10.08	Nitrate	0.664	1.983	0.7564
8	12.91	O.Phos	1.016	1.852	2.8681
9	17.85	Sulfate	2.594	4.361	9.3753



Peak Integration Report

Sample Name:	**MSW1348146**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 12:38**	*Run Time:*	**20.00**

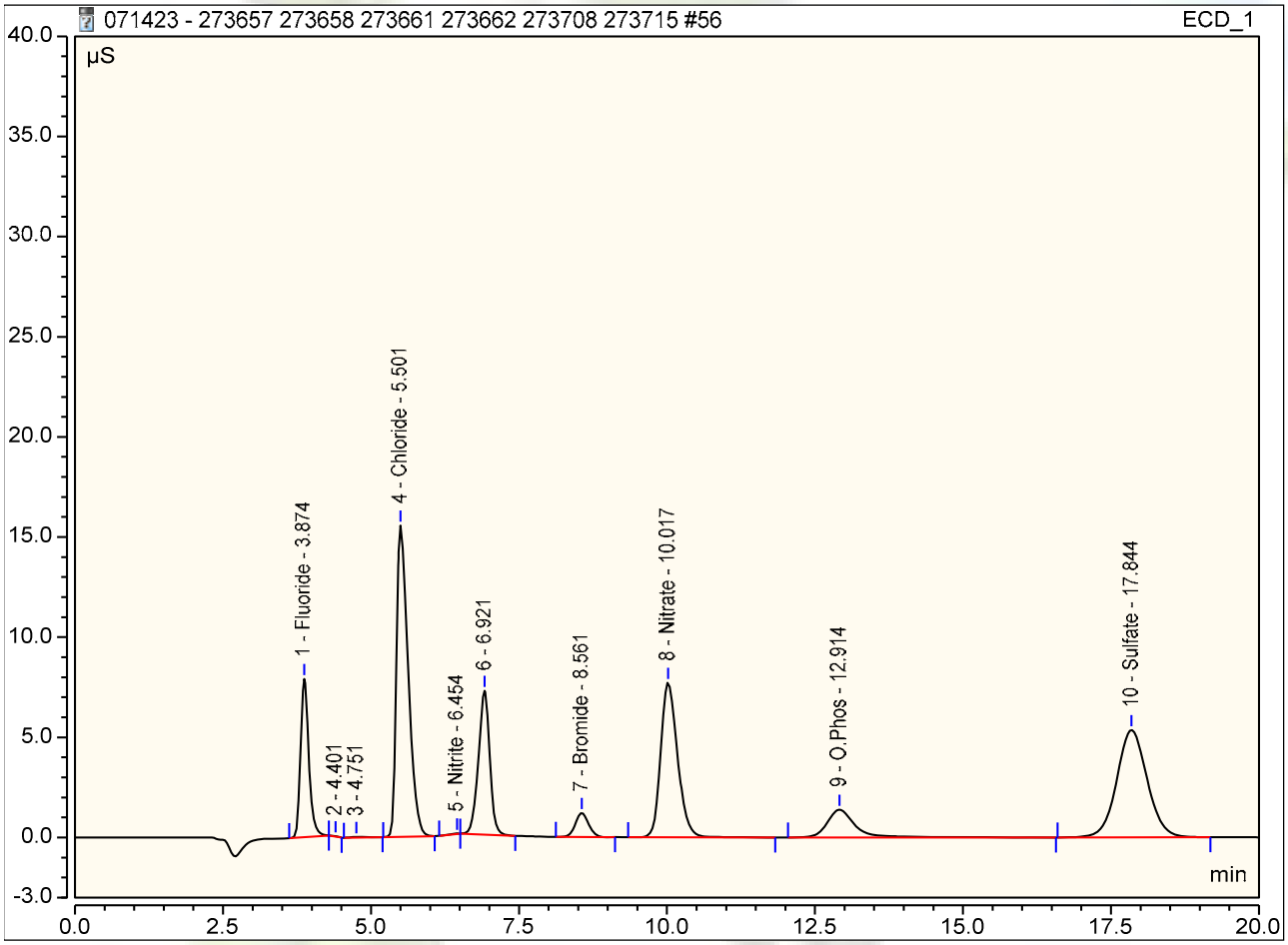
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.274	7.875	2.2779
4	5.50	Chloride	3.594	15.410	9.1634
5	6.47	Nitrite	0.005	0.022	0.0401
7	8.57	Bromide	0.319	1.205	2.1271
8	10.02	Nitrate	2.561	7.743	2.7727
9	12.91	O.Phos	0.757	1.380	2.0546
10	17.85	Sulfate	3.213	5.391	11.4742



Peak Integration Report

Sample Name:	**MSDW1348146**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 13:01**	*Run Time:*	**20.00**

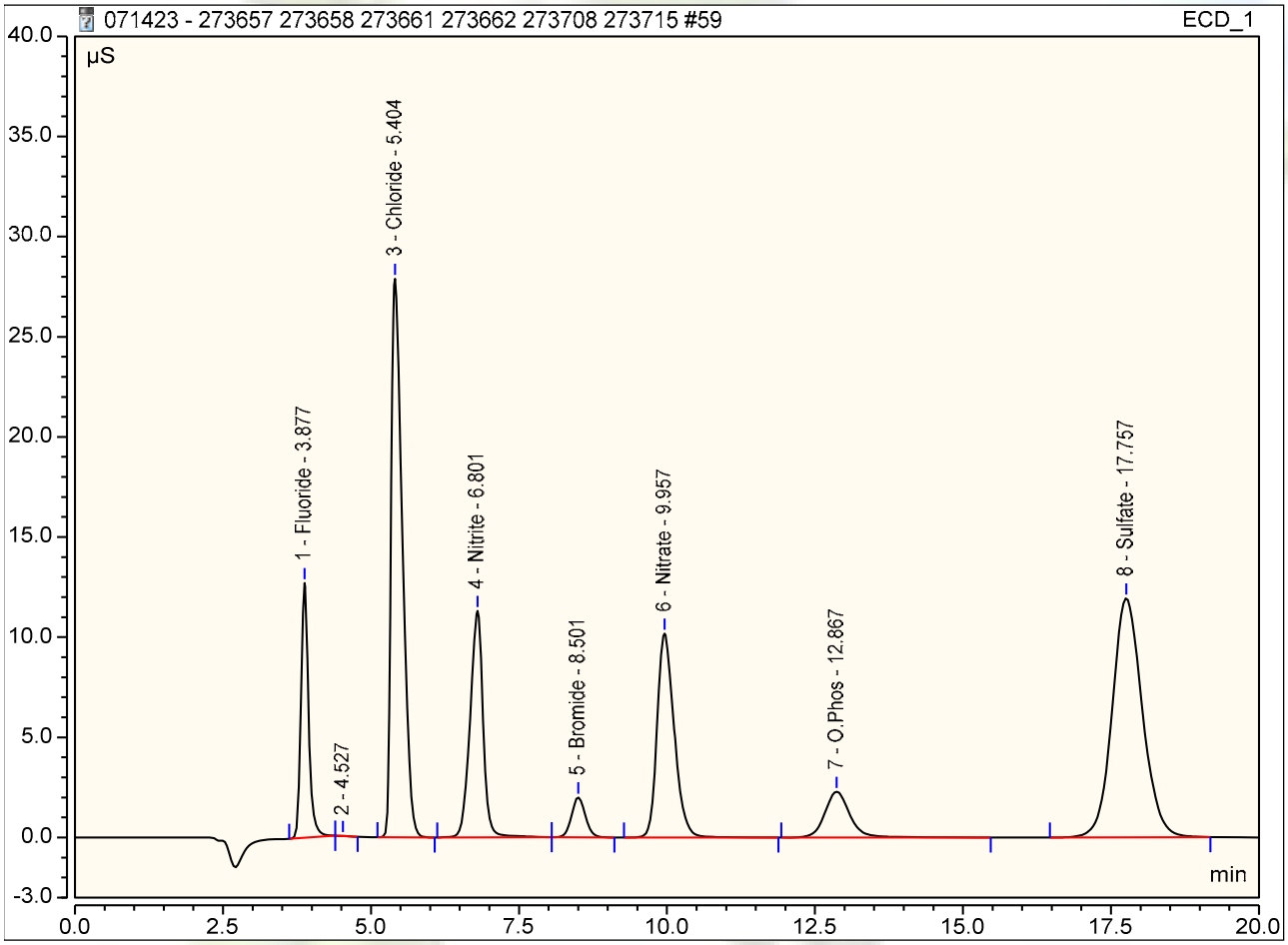
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.271	7.903	2.2730
4	5.50	Chloride	3.574	15.540	9.1150
5	6.45	Nitrite	0.005	0.021	0.0399
7	8.56	Bromide	0.318	1.206	2.1212
8	10.02	Nitrate	2.555	7.720	2.7668
9	12.91	O.Phos	0.765	1.384	2.0800
10	17.84	Sulfate	3.199	5.356	11.4275



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 14:10**	*Run Time:*	**20.00**

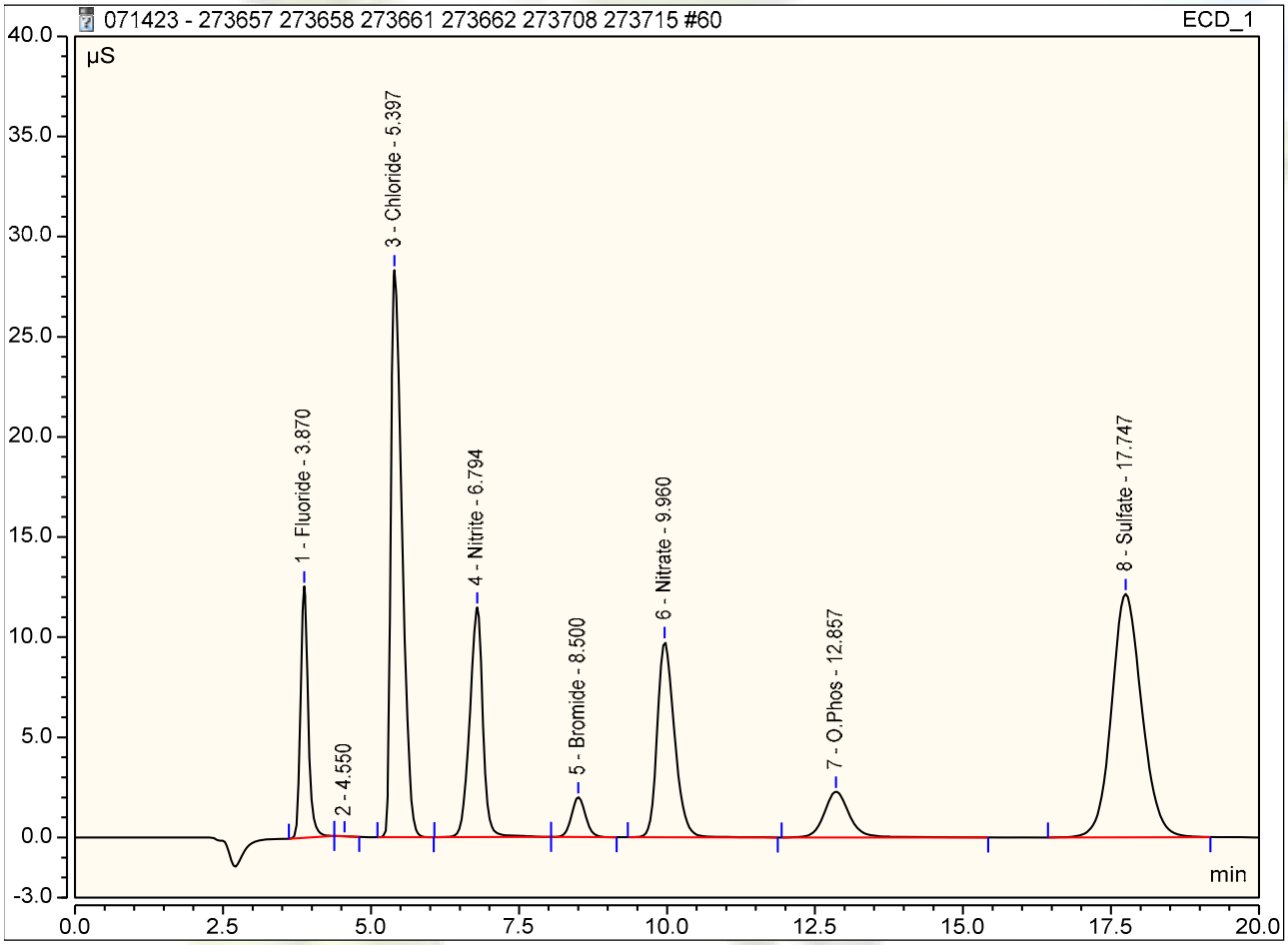
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.88	Fluoride	1.886	12.721	3.3590
3	5.40	Chloride	6.155	27.886	15.4362
4	6.80	Nitrite	2.884	11.309	3.6429
5	8.50	Bromide	0.542	1.996	3.6153
6	9.96	Nitrate	3.408	10.186	3.6734
7	12.87	O.Phos	1.133	2.286	3.2382
8	17.76	Sulfate	7.056	11.932	24.4937



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 14:33**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.87	Fluoride	1.850	12.552	3.2948
3	5.40	Chloride	6.239	28.315	15.6430
4	6.79	Nitrite	2.951	11.473	3.7268
5	8.50	Bromide	0.549	1.995	3.6638
6	9.96	Nitrate	3.300	9.751	3.5589
7	12.86	O.Phos	1.125	2.284	3.2129
8	17.75	Sulfate	7.187	12.147	24.9369

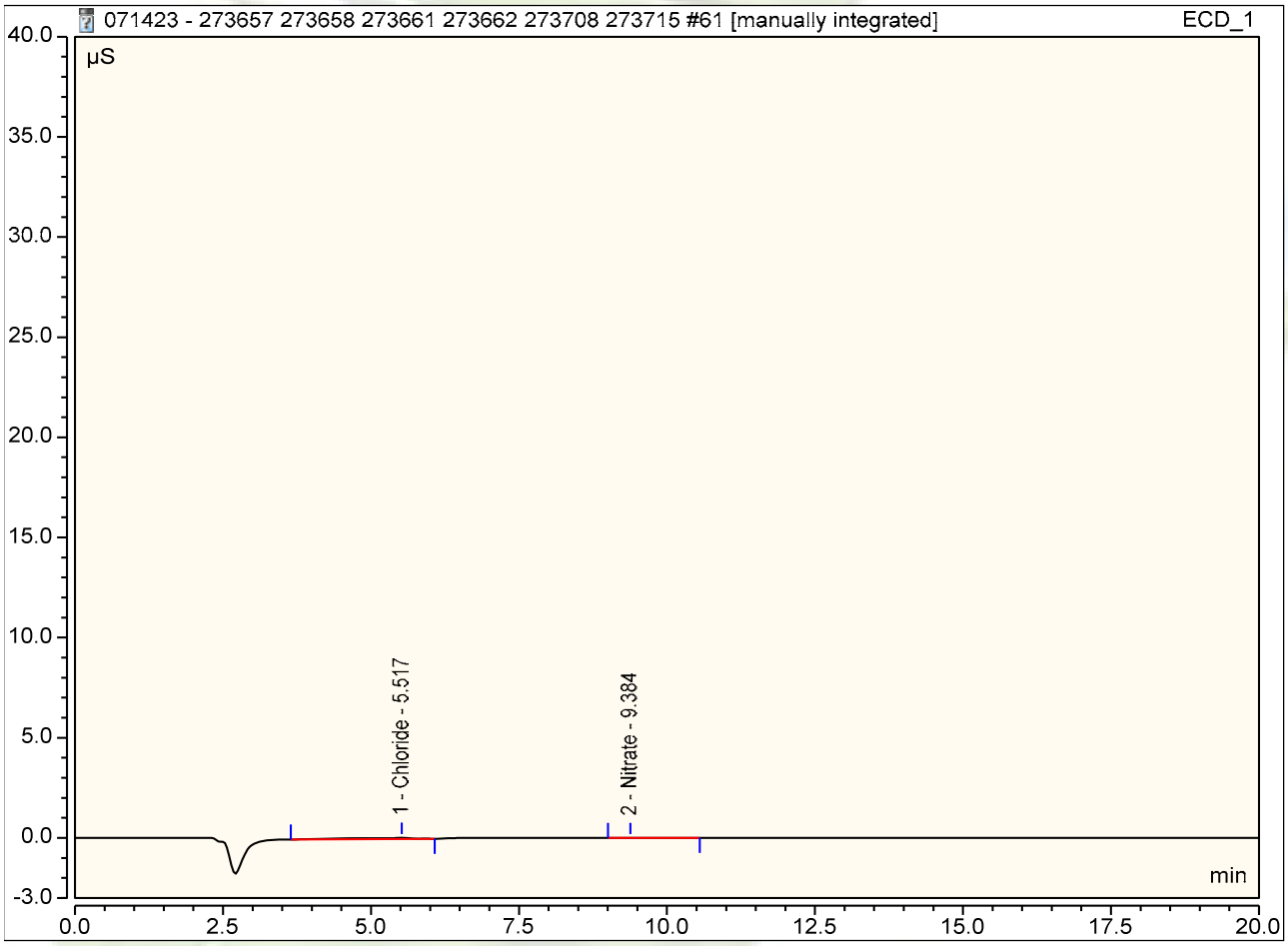


TMG 07/18/2023

Peak Integration Report

Sample Name:	**MBW-CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 14:56**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.52	Chloride	0.075	0.062	0.5454
2	9.38	Nitrate	0.002	0.003	0.0528

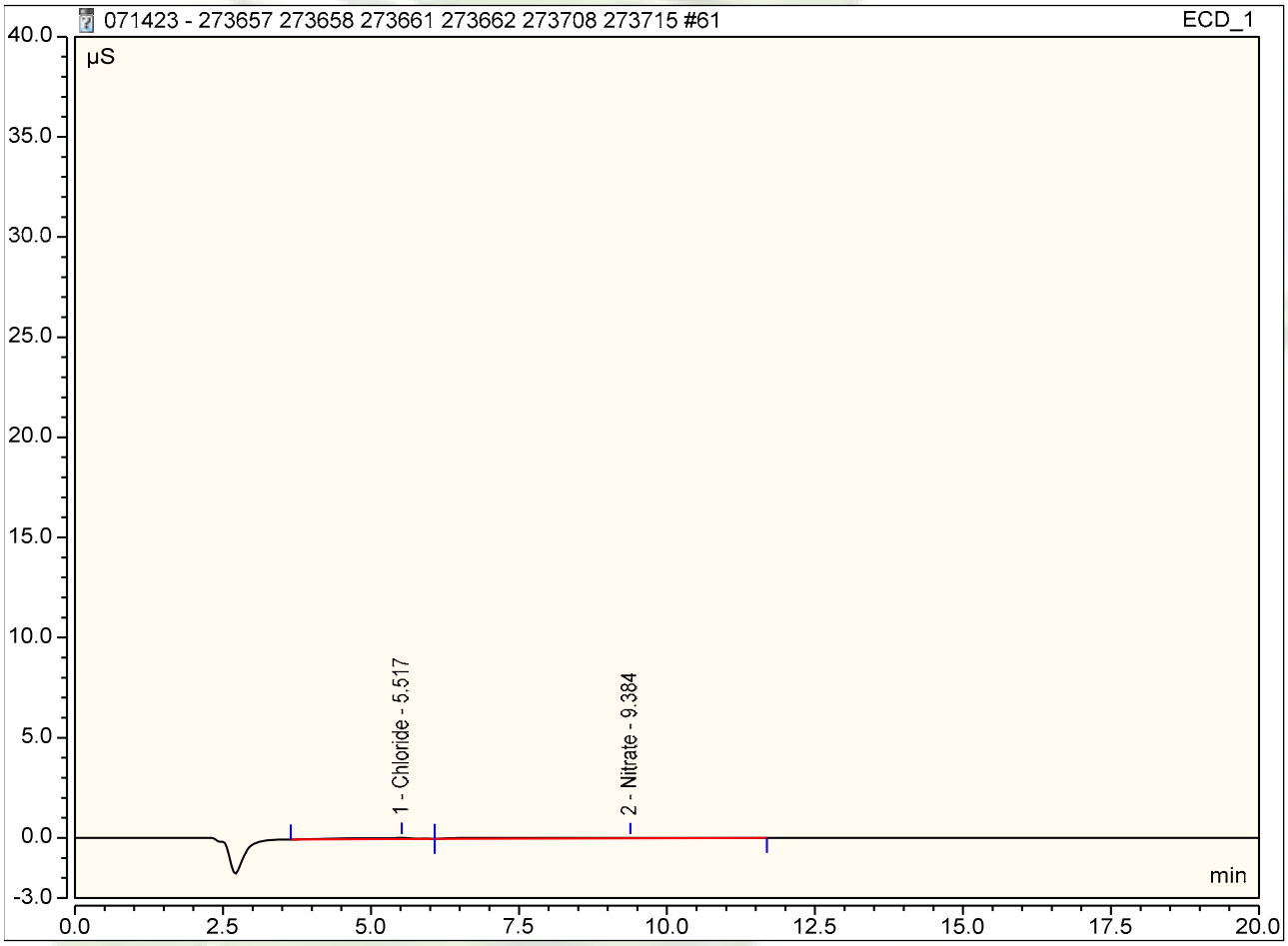


RD 07/18/2023

Peak Integration Report

Sample Name:	**MBW-CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 14:56**	*Run Time:*	**20.00**

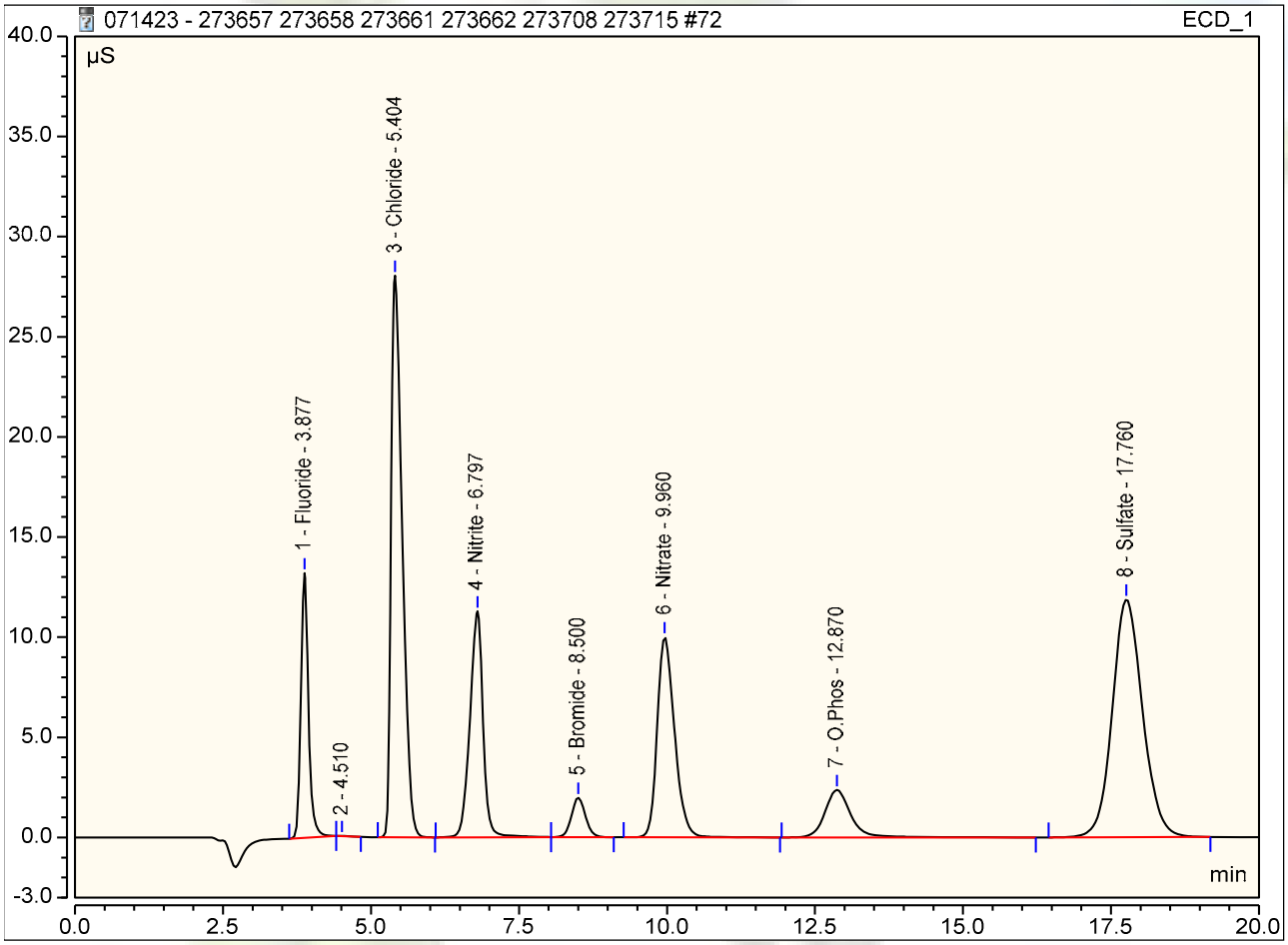
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	5.52	Chloride	0.075	0.062	0.5454
2	9.38	Nitrate	0.120	0.023	0.1783



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 19:07**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.88	Fluoride	1.949	13.216	3.4694
3	5.40	Chloride	6.140	28.040	15.4007
4	6.80	Nitrite	2.893	11.282	3.6547
5	8.50	Bromide	0.541	1.970	3.6117
6	9.96	Nitrate	3.390	10.003	3.6543
7	12.87	O.Phos	1.202	2.364	3.4550
8	17.76	Sulfate	7.037	11.867	24.4285

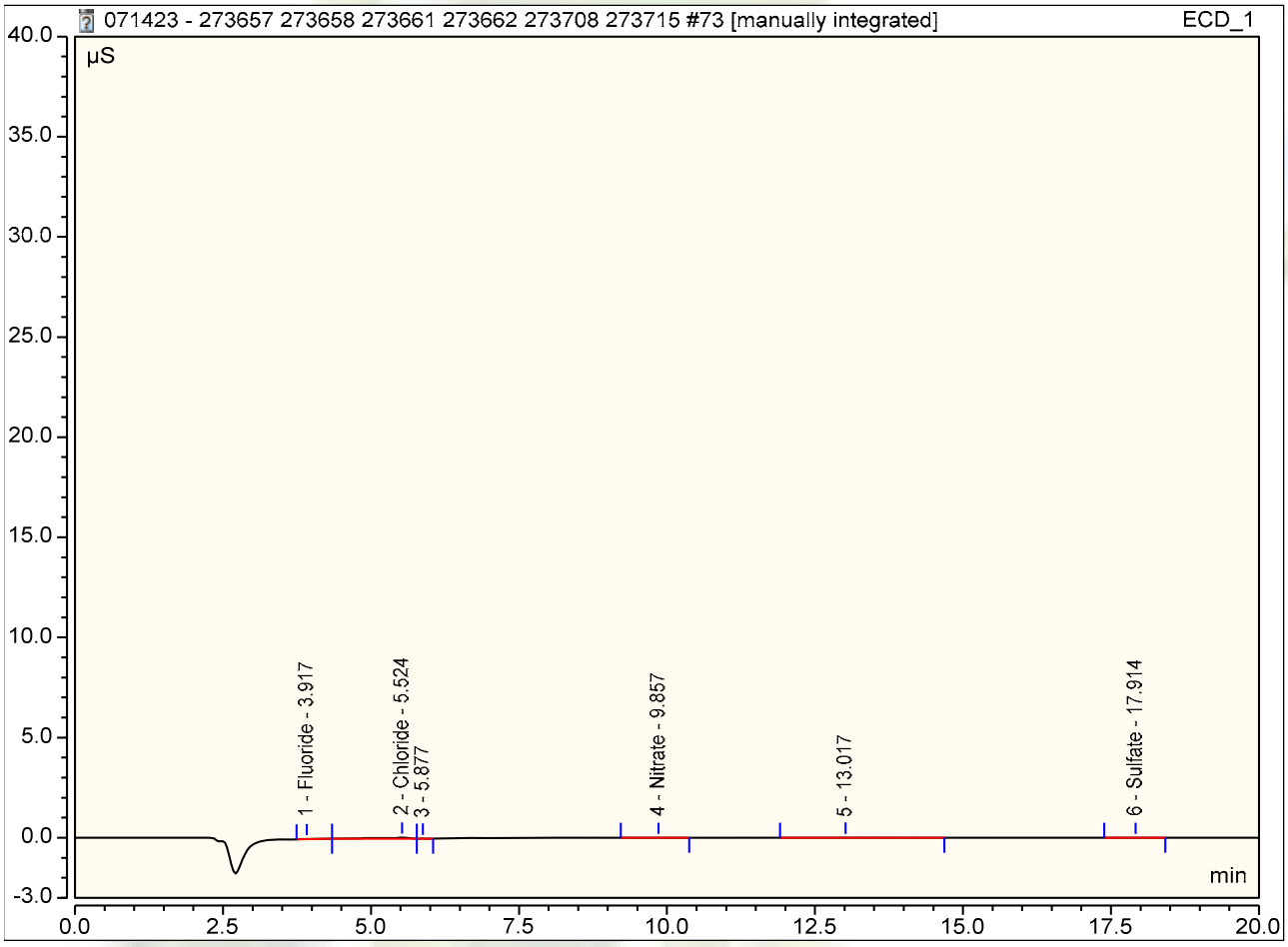


TMG 07/18/2023

Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 19:30**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.92	Fluoride	0.002	0.007	0.0326
2	5.52	Chloride	0.028	0.058	0.4310
4	9.86	Nitrate	0.001	0.002	0.0516
6	17.91	Sulfate	0.002	0.006	0.5967

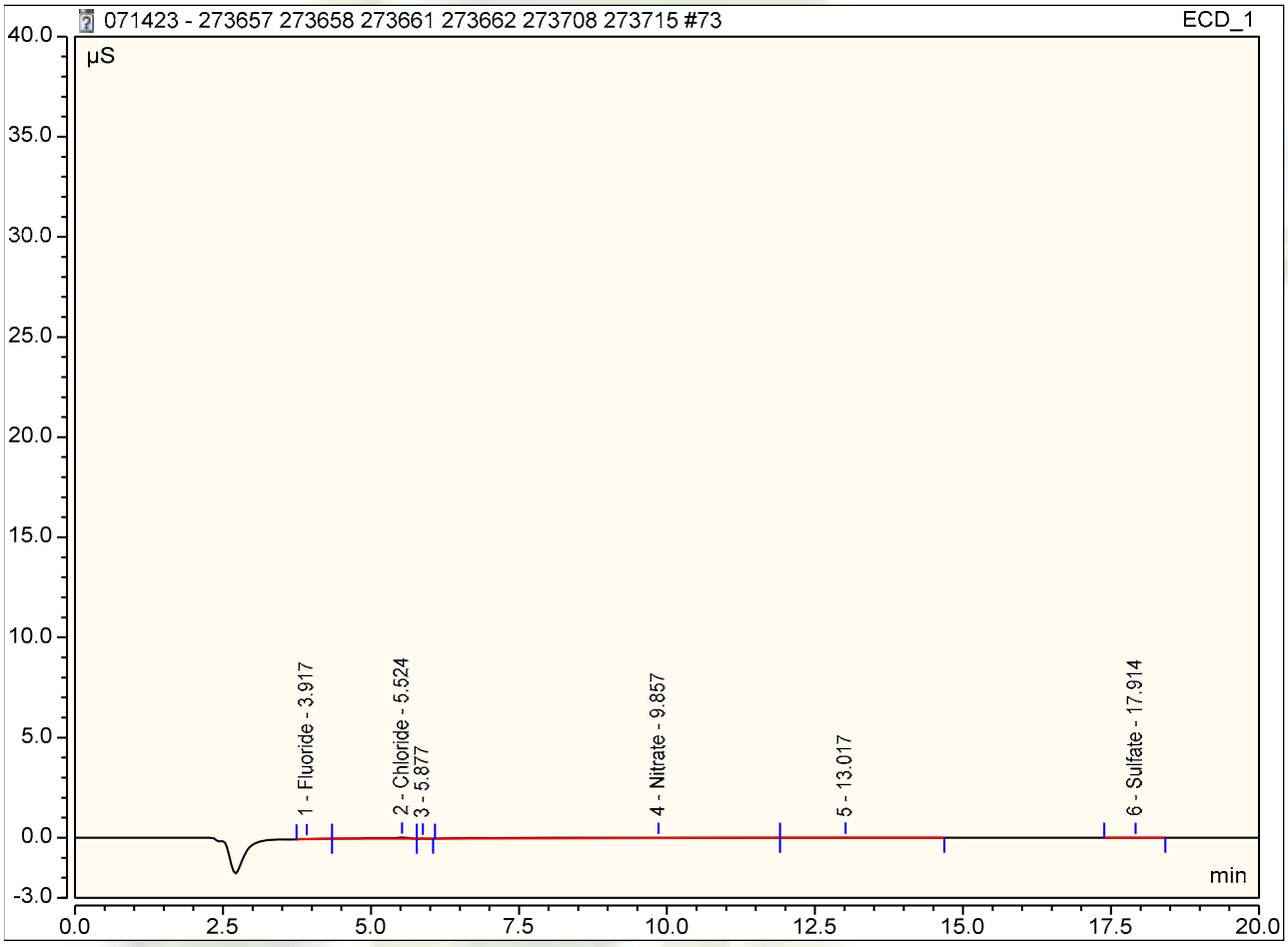


RD 07/18/2023

Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4750A**	*Operator:*	**Administrator**
Inj. Date / Time:	**17-Jul-2023 / 19:30**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.92	Fluoride	0.002	0.007	0.0326
2	5.52	Chloride	0.028	0.058	0.4310
4	9.86	Nitrate	0.118	0.018	0.1760
6	17.91	Sulfate	0.002	0.006	0.5967



pH - Mettler Toledo Seven Easy

(Methods: pH EPA 150.1, SM4500H+B, EPA 9040C, EPA 9045D)

Date:	07/17/2023	Analyst:	RLB/SJ	Lims #:	273725	Slope (%)	96%

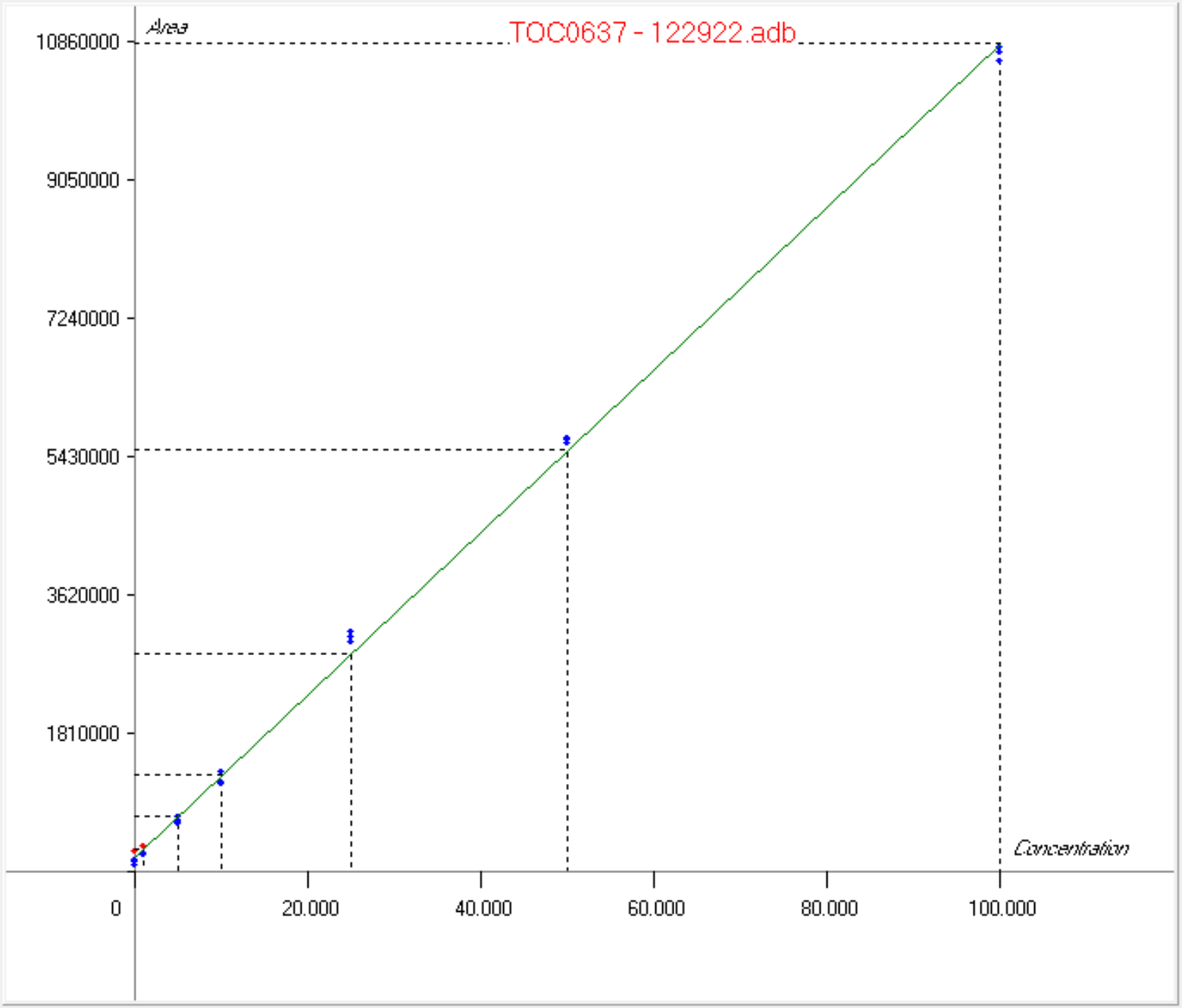
GRP	Sample ID#	Matrix	DF	Corrected Temp (°C)*	Result	
1	BUFFER 7	QC	1	24.2	7.00	
2			1			
3			1			
4			1			
5			1			
6			1			
7			1			
8			1			
9			1			
10			1			
11	1348149	GW	1	10.8	7.89	
dup 11	1348149	GW	1	10.7	7.90	
12	BUFFER 7	QC	1	21.7	7.04	
13			1			
14			1			
15			1			
16			1			
17			1			
18			1			
19			1			
20			1			
21			1			
23			1			
dup 23			1			
24	BUFFER 7	QC	1			
25			1			
dup 25			1			
26			1			
dup 26			1			

To datacapture: Save CSV file under the TSS datacapture folder.

*Temperature of samples should be room temperature around 25°C

Buffer Standard IDs:

pH 4: WC507 pH 7: WC550 pH 10: WC453



Cursor Position

Concentration	Area
118.600 mg/l	-927625

A2	0
A1	106312
A0	206398
Correlation	0.99940
Order	1
Volume	100 µl
Conc.	100.00
Area	10802278

☐ Confidence Intervals 95%

☐ Detection/Determination 95%

Conc.	Area	Sel.
0	280218	☐
0	112417	☑
0	175091	☑
0	147500	☑
0	139848	☑
1	360261	☐
1	236474	☑
1	251607	☑

• Used Value
• Ignored Value

CurveNo:1 CurveType:TC

<-- --> Print... Exit

RJ 01/10/2023

Analysis Name TOC0637 - 122922.adb

Template Name CURVE TEMP.tdb
Method Name N / A
Operator TMG

Date Thursday, December 29, 2022
Time 11:31

Start Oven Temp. 776 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0637 INSTRUMENT:TOCW

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %

SampleTime 240 s

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	This Analysis	Dec 29 2022, 11:31	10802278	100	1	0.99940	100 µl	Yes
	A2: 0		*A1: 106312.019182245*		*A0: 206397.869455896*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	BLANK	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**265559**	**25.80**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	12/29/2022 11:41:57	7.88	1044475	1	773	2	-	-
2	12/29/2022 11:46:13	1.26	340135	1	770	2	-	Yes
3	12/29/2022 11:48:58	0.57	266778	1	769	2	-	Yes
4	12/29/2022 11:51:24	ZERO !	174545	1	768	2	-	Yes
5	12/29/2022 11:53:45	0.70	280780	1	767	2	-	Yes

2	S1	Standard	TC Std 0.00 mg/l	1 x

TC	**ZERO !**	**143714**	**17.94**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	12/29/2022 11:57:01	0.69	280218	1	767	2	-	-
2	12/29/2022 12:00:03	ZERO !	112417	1	765	2	-	Yes
3	12/29/2022 12:02:13	ZERO !	175091	1	765	2	-	Yes
4	12/29/2022 12:04:38	ZERO !	147500	1	764	2	-	Yes
5	12/29/2022 12:06:52	ZERO !	139848	1	764	2	-	Yes

3	S2	Standard	TC Std 1.00 mg/l	1 x

TC	**0.36**	**244615**	**5.54**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	12/29/2022 12:10:02	1.45	360261	1	763	2	-	-
2	12/29/2022 12:13:05	0.28	236474	1	762	2	-	Yes
3	12/29/2022 12:15:23	0.43	251607	1	762	2	-	Yes
4	12/29/2022 12:17:46	0.50	259944	1	761	2	-	Yes
5	12/29/2022 12:20:07	0.23	230437	1	761	2	-	Yes

4	S3	Standard	TC Std. 5.00 mg/l	1 x

TC	**4.51**	**685718**	**6.25**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	12/29/2022 12:23:27	5.08	746046	1	761	2	-	Yes
2	12/29/2022 12:26:42	4.50	685043	1	760	2	-	Yes
3	12/29/2022 12:29:15	4.29	662545	1	759	2	-	Yes
4	12/29/2022 12:31:52	4.17	649239	1	759	2	-	Yes

5	S4	Standard	TC Std. 10.00 mg/l	1 x

		TC	**9.47**	**1212740**	**5.77**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	12/29/2022 12:35:15	10.45	1317077	1	759	2	-	Yes
	2	12/29/2022 12:38:46	9.04	1167894	1	757	2	-	Yes
	3	12/29/2022 12:41:25	9.16	1179909	1	756	2	-	Yes
	4	12/29/2022 12:44:03	9.22	1186081	1	757	2	-	Yes

6	S5	Standard	TC Std. 25.00 mg/l	1 x

		TC	**26.96**	**3072340**	**2.13**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	12/29/2022 12:47:33	27.81	3162769	1	757	2	-	Yes
	2	12/29/2022 12:51:10	26.45	3018461	1	756	2	-	Yes
	3	12/29/2022 12:54:04	27.01	3077512	1	756	2	-	Yes
	4	12/29/2022 12:56:52	26.57	3030620	1	755	2	-	Yes

7	S6	Standard	TC Std. 50.00 mg/l	1 x

		TC	**51.40**	**5671435**	**0.53**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	12/29/2022 13:00:30	51.56	5687946	1	756	2	-	Yes
	2	12/29/2022 13:04:06	51.41	5671882	1	755	2	-	Yes
	3	12/29/2022 13:07:04	51.64	5696586	1	754	2	-	Yes
	4	12/29/2022 13:10:03	51.01	5629329	1	755	2	-	Yes

8	S7	Standard	TC Std. 100.00 mg/l	1 x

		TC	**98.89**	**10719816**	**0.74**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	12/29/2022 13:13:51	99.02	10733481	1	754	2	-	Yes
	2	12/29/2022 13:17:59	97.88	10612159	1	754	2	-	Yes
	3	12/29/2022 13:21:10	99.00	10731348	1	754	2	-	Yes
	4	12/29/2022 13:24:24	99.67	10802278	1	753	2	-	Yes

9	S8	Unknown	ICV - 50.00 mg/L	1 x

		TC	**50.40**	**5565004**	**0.81**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	12/29/2022 13:28:39	50.99	5627548	1	754	2	-	Yes
	2	12/29/2022 13:32:35	50.18	5541665	1	753	2	-	Yes
	3	12/29/2022 13:35:45	50.02	5524022	1	753	2	-	Yes
	4	12/29/2022 13:38:47	50.42	5566784	1	753	2	-	Yes

10	2	Unknown	ICB	1 x

		TC	**ZERO !**	**145252**	**36.72**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	12/29/2022 13:42:51	0.17	224842	1	753	2	-	Yes
	2	12/29/2022 13:46:06	ZERO !	111801	1	752	2	-	Yes
	3	12/29/2022 13:48:20	ZERO !	125150	1	752	2	-	Yes
	4	12/29/2022 13:50:38	ZERO !	119217	1	752	2	-	Yes
	5	12/29/2022 13:52:50	0	0	0	752	2	-	-

Analysis Name 071423 - 273651 273652.adb

Template Name 071423 - 273651 273652.tdb
Method Name N / A
Operator TMG

Date Friday, July 14, 2023
Time 10:51

Start Oven Temp. 755 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0637 INSTRUMENT:TOCW
CCV0678 LCS0679 SPIKE0623

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0637 - 122922	Dec 29 2022, 11:31	10802278	100	1	0.99940	100 µl	Yes
	A2: 0		*A1: 106312.019182245*		*A0: 206397.869455896*				

Inj. Order 1 | Position 1 | Type Unknown | Identification IB | Dilution Factor 1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**114213**	**32.51**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 11:01:55	16.77	1989022	1	754	2	-	-
2	7 14 2023 11:06:32	ZERO !	151984	1	753	2	-	Yes
3	7 14 2023 11:08:46	ZERO !	139795	1	753	2	-	Yes
4	7 14 2023 11:11:03	ZERO !	87498	1	752	2	-	Yes
5	7 14 2023 11:13:14	ZERO !	77575	1	752	2	-	Yes

---

2 | S1 | Unknown | CCV | 1 x

TC	**52.57**	**5795639**	**1.76**		**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 11:16:13	53.51	5895356	1	752	2	-	Yes
2	7 14 2023 11:19:55	51.67	5699098	1	752	2	-	Yes
3	7 14 2023 11:22:56	51.84	5717092	1	752	2	-	Yes
4	7 14 2023 11:25:45	53.28	5871012	1	752	2	-	Yes

---

3 | S5 | Unknown | LCSW | 1 x

TC	**51.73**	**5706048**	**1.03**		**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 11:29:44	51.92	5726641	1	753	2	-	Yes
2	7 14 2023 11:33:35	51.93	5726833	1	753	2	-	Yes
3	7 14 2023 11:36:44	52.16	5751378	1	753	2	-	Yes
4	7 14 2023 11:39:53	50.92	5619343	1	753	2	-	Yes

---

4 | 2 | Unknown | MBW | 1 x

TC	**ZERO !**	**103902**	**15.53**		**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 11:43:40	ZERO !	165338	1	753	2	-	-
2	7 14 2023 11:46:38	ZERO !	104973	1	752	2	-	Yes
3	7 14 2023 11:48:46	ZERO !	124028	1	752	2	-	Yes
4	7 14 2023 11:51:00	ZERO !	101963	1	752	2	-	Yes
5	7 14 2023 11:53:12	ZERO !	84644	1	752	2	-	Yes

		TC	**13.37**	**1627248**	**1.29**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 11:56:14	13.30	1619969	1	752	2	-	Yes
	2	7 14 2023 11:59:28	13.14	1602940	1	752	2	-	Yes
	3	7 14 2023 12:02:03	13.43	1633739	1	752	2	-	Yes
	4	7 14 2023 12:04:40	13.60	1652347	1	752	2	-	Yes

6	4	Unknown	1346444		1 x

		TC	**7.14**	**965152**	**3.32**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 12:08:02	7.45	998676	1	752	2	-	Yes
	2	7 14 2023 12:11:15	7.19	970378	1	751	2	-	Yes
	3	7 14 2023 12:13:44	6.73	921438	1	751	2	-	Yes
	4	7 14 2023 12:16:18	7.18	970117	1	751	2	-	Yes

7	5	Unknown	1346445		1 x

		TC	**7.32**	**984075**	**2.61**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 12:19:39	7.39	992012	1	751	2	-	Yes
	2	7 14 2023 12:22:46	7.10	961335	1	751	2	-	Yes
	3	7 14 2023 12:25:17	7.15	966081	1	750	2	-	Yes
	4	7 14 2023 12:27:43	7.62	1016873	1	750	2	-	Yes

8	6	Unknown	1346446		1 x

		TC	**10.72**	**1346049**	**3.68**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 12:31:01	11.40	1417961	1	750	2	-	Yes
	2	7 14 2023 12:34:14	10.50	1323132	1	750	2	-	Yes
	3	7 14 2023 12:36:44	10.63	1336694	1	750	2	-	Yes
	4	7 14 2023 12:39:13	10.35	1306412	1	750	2	-	Yes

9	7	Unknown	1346447		1 x

		TC	**6.43**	**890299**	**2.60**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 12:42:33	6.70	918712	1	750	2	-	Yes
	2	7 14 2023 12:45:39	6.50	897392	1	750	2	-	Yes
	3	7 14 2023 12:48:02	6.19	864984	1	749	2	-	Yes
	4	7 14 2023 12:50:25	6.34	880108	1	750	2	-	Yes

10	8	Unknown	1346448		1 x

		TC	**9.02**	**1165484**	**2.68**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 12:53:41	9.44	1210489	1	750	2	-	Yes
	2	7 14 2023 12:56:50	8.77	1138590	1	750	2	-	Yes
	3	7 14 2023 12:59:14	8.91	1153696	1	750	2	-	Yes
	4	7 14 2023 13:01:39	8.96	1159161	1	750	2	-	Yes

11	9	Unknown	DUP1346448		1 x

		TC	**8.96**	**1158579**	**2.28**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 13:04:58	9.25	1189520	1	750	2	-	Yes
	2	7 14 2023 13:08:03	9.08	1171533	1	750	2	-	Yes
	3	7 14 2023 13:10:27	8.77	1138664	1	750	2	-	Yes
	4	7 14 2023 13:12:53	8.73	1134601	1	750	2	-	Yes

12	10	Unknown	MSW1346448		1 x

		TC	**60.37**	**6624628**	**0.24**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 13:16:13	60.16	6602485	1	750	2	-	Yes
	2	7 14 2023 13:19:35	60.37	6624969	1	751	2	-	Yes
	3	7 14 2023 13:22:16	60.52	6640086	1	751	2	-	Yes
	4	7 14 2023 13:25:01	60.43	6630975	1	750	2	-	Yes

13	11	Unknown	MSDW1346448		1 x

		TC	**60.95**	**6686106**		**1.25**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 13:28:29	61.46	6740461	1	751	2	-	Yes
	2	7 14 2023 13:31:51	60.91	6681420	1	751	2	-	Yes
	3	7 14 2023 13:34:31	59.86	6570015	1	751	2	-	Yes
	4	7 14 2023 13:37:08	61.57	6752530	1	751	2	-	Yes

14	12	Unknown	1346449					1 x	
		TC	**3.35**	**562951**		**3.04**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 13:40:43	3.52	580203	1	751	2	-	Yes
	2	7 14 2023 13:43:42	3.46	573962	1	751	2	-	Yes
	3	7 14 2023 13:45:58	3.17	543258	1	750	2	-	Yes
	4	7 14 2023 13:48:14	3.27	554382	1	751	2	-	Yes

15	S1	Unknown	CCV					1 x	
		TC	**52.95**	**5835683**		**0.49**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 13:51:52	52.95	5835676	1	752	2	-	Yes
	2	7 14 2023 13:55:28	53.25	5867199	1	751	2	-	Yes
	3	7 14 2023 13:58:25	52.59	5797454	1	751	2	-	Yes
	4	7 14 2023 14:01:21	53.01	5842403	1	751	2	-	Yes

16	13	Unknown	CCB					1 x	
		TC	**ZERO !**	**77824**		**12.70**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 14:05:13	ZERO !	82540	1	751	2	-	Yes
	2	7 14 2023 14:07:58	ZERO !	74702	1	751	2	-	Yes
	3	7 14 2023 14:10:02	ZERO !	65626	1	751	2	-	Yes
	4	7 14 2023 14:12:04	ZERO !	56243	1	750	2	-	-
	5	7 14 2023 14:14:09	ZERO !	88430	1	751	2	-	Yes

17	14	Unknown	1346450					1 x	
		TC	**5.60**	**801817**		**3.31**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 14:17:05	5.88	831957	1	751	2	-	Yes
	2	7 14 2023 14:20:10	5.38	778632	1	751	2	-	Yes
	3	7 14 2023 14:22:32	5.40	780396	1	751	2	-	Yes
	4	7 14 2023 14:24:54	5.74	816283	1	751	2	-	Yes

18	15	Unknown	1346451					1 x	
		TC	**12.98**	**1586206**		**2.21**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 14:28:13	13.47	1638587	1	752	2	-	Yes
	2	7 14 2023 14:31:24	12.84	1571316	1	752	2	-	Yes
	3	7 14 2023 14:33:53	12.79	1566288	1	751	2	-	Yes
	4	7 14 2023 14:36:22	12.81	1568634	1	751	2	-	Yes

19	16	Unknown	1346452					1 x	
		TC	**3.53**	**581812**		**3.87**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 14:39:40	3.80	610317	1	752	2	-	Yes
	2	7 14 2023 14:42:36	3.48	576864	1	752	2	-	Yes
	3	7 14 2023 14:44:52	3.55	584290	1	752	2	-	Yes
	4	7 14 2023 14:47:08	3.29	555779	1	751	2	-	Yes

20	17	Unknown	1346379					1 x	
		TC	**ZERO !**	**161569**		**10.76**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 14:50:47	ZERO !	186586	1	752	2	-	Yes
	2	7 14 2023 14:53:34	ZERO !	160132	1	752	2	-	Yes
	3	7 14 2023 14:55:39	ZERO !	148941	1	752	2	-	Yes
	4	7 14 2023 14:57:43	ZERO !	150618	1	751	2	-	Yes
	5	7 14 2023 14:59:45	ZERO !	93147	1	751	2	-	-

27	S1	Unknown	CCV				1 x		
		TC	**52.77**	**5817118**	**0.43**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 16:12:48	52.77	5816225	1	752	2	-	Yes
	2	7 14 2023 16:16:30	52.62	5801024	1	752	2	-	Yes
	3	7 14 2023 16:19:25	53.11	5853026	1	752	2	-	Yes
	4	7 14 2023 16:22:18	52.60	5798200	1	752	2	-	Yes
28	S5	Unknown	LCSW				1 x		
		TC	**52.52**	**5789423**	**0.61**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 14 2023 16:26:09	52.96	5836699	1	752	2	-	Yes

2	7 14 2023 16:29:53	52.17	5752714	1	753	2	-	Yes
3	7 14 2023 16:32:55	52.42	5778831	1	753	2	-	Yes
4	7 14 2023 16:35:48	52.52	5789449	1	752	2	-	Yes

29 24 Unknown MBW-CCB 1 x

TC **ZERO !** **94730** **13.56** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 16:39:35	ZERO !	108172	1	752	2	-	Yes
2	7 14 2023 16:42:26	ZERO !	80787	1	752	2	-	Yes
3	7 14 2023 16:44:34	ZERO !	87250	1	752	2	-	Yes
4	7 14 2023 16:46:40	ZERO !	102712	1	752	2	-	Yes
5	7 14 2023 16:48:45	ZERO !	71919	1	751	2	-	-

31 26 Unknown 1346821 1 x

TC **ZERO !** **149267** **3.70** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 17:04:01	ZERO !	156912	1	752	2	-	Yes
2	7 14 2023 17:06:49	ZERO !	148717	1	752	2	-	Yes
3	7 14 2023 17:08:52	ZERO !	147680	1	751	2	-	Yes
4	7 14 2023 17:10:58	ZERO !	143762	1	751	2	-	Yes

32 27 Unknown DUP1346821 1 x

TC **ZERO !** **134200** **8.42** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 17:15:09	ZERO !	135175	1	752	2	-	Yes
2	7 14 2023 17:17:57	ZERO !	149713	1	752	2	-	Yes
3	7 14 2023 17:20:03	ZERO !	124351	1	752	2	-	Yes
4	7 14 2023 17:22:07	ZERO !	127563	1	752	2	-	Yes

33 28 Unknown MSW1346821 1 x

TC **52.14** **5749109** **0.87** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 17:26:18	52.18	5754039	1	753	2	-	Yes
2	7 14 2023 17:29:40	52.79	5818434	1	753	2	-	Yes
3	7 14 2023 17:32:17	51.79	5711994	1	753	2	-	Yes
4	7 14 2023 17:34:56	51.79	5711971	1	753	2	-	Yes

34 29 Unknown MSDW1346821 1 x

TC **52.20** **5755534** **0.22** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 17:38:29	52.18	5753268	1	753	2	-	Yes
2	7 14 2023 17:41:47	52.10	5744792	1	754	2	-	Yes
3	7 14 2023 17:44:26	52.15	5750194	1	753	2	-	Yes
4	7 14 2023 17:47:04	52.37	5773883	1	753	2	-	Yes

35 30 Unknown 1346822 1 x

TC **ZERO !** **146799** **18.47** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 17:50:36	ZERO !	182093	1	753	2	-	Yes
2	7 14 2023 17:53:20	ZERO !	149872	1	753	2	-	Yes
3	7 14 2023 17:55:24	ZERO !	137958	1	752	2	-	Yes
4	7 14 2023 17:57:29	ZERO !	117275	1	752	2	-	Yes
5	7 14 2023 17:59:27	ZERO !	84286	1	752	2	-	-

36 31 Unknown 1346823 1 x

	TC	0.28	235616	8.03		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 18:02:19	0.39	247505	1	752	2	-	Yes
2	7 14 2023 18:05:06	0.43	252009	1	753	2	-	Yes
3	7 14 2023 18:07:12	0.03	209985	1	753	2	-	Yes
4	7 14 2023 18:09:16	0.25	232967	1	752	2	-	Yes

37 32 Unknown 1346824 1 x

	TC	ZERO !	168565	1.52		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 18:13:27	ZERO !	171811	1	753	2	-	Yes
2	7 14 2023 18:16:11	ZERO !	165973	1	753	2	-	Yes
3	7 14 2023 18:18:14	ZERO !	169292	1	753	2	-	Yes
4	7 14 2023 18:20:16	ZERO !	167185	1	753	2	-	Yes

38 33 Unknown 1346825 1 x

	TC	ZERO !	151258	5.07		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 18:24:36	ZERO !	159393	1	753	2	-	Yes
2	7 14 2023 18:27:21	ZERO !	144214	1	753	2	-	Yes
3	7 14 2023 18:29:22	ZERO !	156199	1	752	2	-	Yes
4	7 14 2023 18:31:26	ZERO !	145228	1	752	2	-	Yes

39 34 Unknown 1347302 1 x

	TC	0.76	287422	3.60		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 18:35:45	0.80	291957	1	753	2	-	Yes
2	7 14 2023 18:38:32	0.84	295781	1	753	2	-	Yes
3	7 14 2023 18:40:39	0.62	272371	1	752	2	-	Yes
4	7 14 2023 18:42:44	0.78	289580	1	752	2	-	Yes

40 S2 Unknown CCV 1 x

	TC	52.24	5760596	0.88		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 18:46:55	52.71	5809757	1	753	2	-	Yes
2	7 14 2023 18:50:35	51.89	5722985	1	753	2	-	Yes
3	7 14 2023 18:53:27	51.78	5711668	1	752	2	-	Yes
4	7 14 2023 18:56:18	52.60	5797977	1	753	2	-	Yes

41 35 Unknown CCB 1 x

	TC	ZERO !	51622	68.54		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 19:00:01	ZERO !	75547	1	753	2	-	Yes
2	7 14 2023 19:02:51	ZERO !	57250	1	753	2	-	Yes
3	7 14 2023 19:04:54	ZERO !	73691	1	752	2	-	Yes
4	7 14 2023 19:06:58	0	0	0	752	2	-	Yes
5	7 14 2023 19:10:59	0	0	0	753	2	-	-

42 36 Unknown 1347303 1 x

	TC	1.15	328213	8.87		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 19:15:53	1.55	370839	1	753	2	-	Yes
2	7 14 2023 19:18:58	0.98	310268	1	752	2	-	Yes
3	7 14 2023 19:21:13	0.96	308764	1	752	2	-	Yes
4	7 14 2023 19:23:25	1.10	322981	1	752	2	-	Yes

43 37 Unknown 1347304 1 x

	TC	1.16	329588	9.56		100 µl	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 19:27:13	1.52	368496	1	753	2	-	Yes
2	7 14 2023 19:30:02	1.22	335678	1	752	2	-	Yes

3	7 14 2023 19:32:14	1.08	321526	1	752	2	-	Yes
4	7 14 2023 19:34:27	0.81	292653	1	752	2	-	Yes

---

44 38 Unknown 1347305 1 x

TC **ZERO !** **69148** **69.38** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 19:38:22	ZERO !	110835	1	753	2	-	Yes
2	7 14 2023 19:41:14	ZERO !	84957	1	752	2	-	Yes
3	7 14 2023 19:43:15	0	0	0	752	2	-	Yes
4	7 14 2023 19:47:17	ZERO !	80802	1	752	2	-	Yes
5	7 14 2023 19:49:18	0	0	0	752	2	-	-

---

45 S2 Unknown CCV 1 x

TC **52.84** **5823627** **0.88** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 19:54:11	52.55	5792839	1	752	2	-	Yes
2	7 14 2023 19:57:48	52.60	5798765	1	752	2	-	Yes
3	7 14 2023 20:00:38	52.64	5802469	1	751	2	-	Yes
4	7 14 2023 20:03:27	53.56	5900435	1	752	2	-	Yes

---

46 39 Unknown CCB 1 x

TC **ZERO !** **74037** **41.42** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 14 2023 20:07:19	ZERO !	118471	1	752	2	-	Yes
2	7 14 2023 20:10:12	ZERO !	69398	1	752	2	-	Yes
3	7 14 2023 20:12:14	ZERO !	50023	1	752	2	-	Yes
4	7 14 2023 20:14:17	ZERO !	58258	1	752	2	-	Yes
5	7 14 2023 20:16:24	0	0	0	752	2	-	-

Analysis Name 071823 - 273704R 273734 273735.adb

Template Name 071823 - 273704R 273734 273735.tdb
Method Name N / A
Operator TMG

Date Tuesday, July 18, 2023
Time 9:34

Start Oven Temp. 757 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0637 INSTRUMENT:TOCW
CCV0678 LCS0679 SPIKE0623

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0637 - 122922	Dec 29 2022, 11:31	10802278	100	1	0.99940	100 µl	Yes
	A2: 0		*A1: 106312.019182245*		*A0: 206397.869455896*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**337249**	**177.70**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 9:44:40	9.65	1232379	1	755	2	-	Yes
2	7 18 2023 9:49:11	ZERO !	116619	1	756	2	-	Yes
3	7 18 2023 9:51:23	0	0	0	754	2	-	Yes
4	7 18 2023 9:55:25	0	0	0	754	2	-	Yes
5	7 18 2023 9:59:27	0	0	0	755	2	-	-

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**50.99**	**5626897**	**1.48**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 10:04:21	51.25	5654820	1	754	2	-	Yes
2	7 18 2023 10:07:59	50.36	5560470	1	754	2	-	Yes
3	7 18 2023 10:10:57	50.36	5559786	1	754	2	-	Yes
4	7 18 2023 10:13:53	51.98	5732513	1	753	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S5	Unknown	LCSW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**51.74**	**5707296**	**0.86**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 10:17:47	51.94	5728692	1	753	2	-	Yes
2	7 18 2023 10:21:28	51.21	5651063	1	753	2	-	Yes
3	7 18 2023 10:24:22	51.54	5685882	1	753	2	-	Yes
4	7 18 2023 10:27:36	52.27	5763550	1	753	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW-CCB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**81338**	**17.33**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 10:31:31	ZERO !	89384	1	753	2	-	Yes
2	7 18 2023 10:34:26	ZERO !	96335	1	752	2	-	Yes
3	7 18 2023 10:36:37	0	0	0	753	2	-	-
4	7 18 2023 10:40:39	ZERO !	74343	1	753	2	-	Yes
5	7 18 2023 10:42:46	ZERO !	65290	1	752	2	-	Yes

13	11	Unknown	13477758	1 x

		TC	**ZERO !**	**103808**		**9.03**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 12:17:23	ZERO !	114300	1	752	2	-	Yes
	2	7 18 2023 12:20:08	ZERO !	92481	1	752	2	-	Yes
	3	7 18 2023 12:22:10	ZERO !	100717	1	751	2	-	Yes
	4	7 18 2023 12:24:14	ZERO !	107735	1	751	2	-	Yes

14	12	Unknown	1347759	1 x

		TC	**ZERO !**	**84687**		**33.86**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 12:28:31	ZERO !	127230	1	752	2	-	Yes
	2	7 18 2023 12:31:15	ZERO !	67366	1	751	2	-	Yes
	3	7 18 2023 12:33:14	ZERO !	76513	1	751	2	-	Yes
	4	7 18 2023 12:35:13	ZERO !	67640	1	751	2	-	Yes
	5	7 18 2023 12:37:12	0	0	0	751	2	-	-

15	S1	Unknown	CCV	1 x

		TC	**50.81**	**5607899**		**1.21**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 12:42:05	50.03	5525718	1	752	2	-	Yes
	2	7 18 2023 12:45:41	50.64	5589509	1	752	2	-	Yes
	3	7 18 2023 12:48:35	51.01	5629186	1	751	2	-	Yes
	4	7 18 2023 12:51:26	51.55	5687183	1	752	2	-	Yes

16	13	Unknown	CCB	1 x

		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 12:55:13	ZERO !	76444	1	752	2	-	-
	2	7 18 2023 12:58:00	0	0	0	751	2	-	Yes
	3	7 18 2023 13:02:02	0	0	0	752	2	-	Yes
	4	7 18 2023 13:06:03	0	0	0	752	2	-	Yes
	5	7 18 2023 13:10:05	0	0	0	752	2	-	Yes

17	14	Unknown	1348146	1 x

		TC	**ZERO !**	**116188**		**7.34**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 13:14:59	ZERO !	128791	1	752	2	-	Yes
	2	7 18 2023 13:17:43	ZERO !	113494	1	751	2	-	Yes
	3	7 18 2023 13:19:53	ZERO !	112508	1	751	2	-	Yes
	4	7 18 2023 13:22:00	ZERO !	109961	1	751	2	-	Yes

18	15	Unknown	DUP1348146	1 x

		TC	**ZERO !**	**87503**		**34.08**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 13:26:07	ZERO !	122142	1	752	2	-	Yes
	2	7 18 2023 13:28:53	ZERO !	79947	1	751	2	-	Yes
	3	7 18 2023 13:30:59	ZERO !	96814	1	751	2	-	Yes
	4	7 18 2023 13:33:04	ZERO !	51111	1	751	2	-	Yes
	5	7 18 2023 13:35:05	0	0	0	751	2	-	-

19	16	Unknown	MSW1348146	1 x

		TC	**48.40**	**5352065**		**1.64**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 13:39:57	48.41	5353209	1	752	2	-	Yes
	2	7 18 2023 13:43:17	47.35	5240411	1	751	2	-	Yes
	3	7 18 2023 13:45:51	48.47	5359249	1	751	2	-	Yes
	4	7 18 2023 13:48:31	49.37	5455392	1	751	2	-	Yes

20	17	Unknown	MSDW1348146	1 x

		TC	**48.79**	**5393344**		**2.16**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	7 18 2023 13:52:10	49.91	5512906	1	752	2	-	Yes
	2	7 18 2023 13:55:33	47.52	5258531	1	752	2	-	Yes
	3	7 18 2023 13:58:07	48.26	5336581	1	751	2	-	Yes

4	7 18 2023 14:00:45	49.47	5465360	1	751	2	-	Yes

21	18	Unknown	1348147			1 x

	TC	**ZERO !**	**89752**	**9.01**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 14:04:12	ZERO !	115510	1	752	2	-	-
2	7 18 2023 14:06:55	ZERO !	93584	1	751	2	-	Yes
3	7 18 2023 14:08:56	ZERO !	97031	1	751	2	-	Yes
4	7 18 2023 14:10:57	ZERO !	78427	1	751	2	-	Yes
5	7 18 2023 14:12:58	ZERO !	89969	1	751	2	-	Yes

22	19	Unknown	1348148			1 x

	TC	**ZERO !**	**70488**	**8.61**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 14:15:49	ZERO !	72197	1	752	2	-	Yes
2	7 18 2023 14:18:29	ZERO !	67206	1	751	2	-	Yes
3	7 18 2023 14:20:27	ZERO !	64361	1	751	2	-	Yes
4	7 18 2023 14:22:25	ZERO !	78188	1	751	2	-	Yes

27	S1	Unknown	CCV			1 x

	TC	**50.47**	**5572234**	**0.74**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 15:11:48	49.90	5511098	1	752	2	-	Yes
2	7 18 2023 15:15:18	50.59	5584572	1	752	2	-	Yes
3	7 18 2023 15:18:06	50.73	5600018	1	752	2	-	Yes
4	7 18 2023 15:21:02	50.67	5593251	1	752	2	-	Yes

28	24	Unknown	CCB			1 x

	TC	**ZERO !**	**54298**	**66.75**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	7 18 2023 15:24:46	ZERO !	74572	1	752	2	-	Yes

2	7 18 2023 15:27:33	ZERO !	72524	1	751	2	-	Yes
3	7 18 2023 15:29:35	ZERO !	70097	1	751	2	-	Yes
4	7 18 2023 15:31:38	0	0	0	751	2	-	Yes
5	7 18 2023 15:35:39	0	0	0	752	2	-	-

INORGANICS
LOGBOOK
DOCUMENTS

WCOD QSM Analytical Run
273727 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1346384		7/10/2023	16:05							GW	4	
		54IDW								130553			
179047	1348149		7/14/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	COD QSM		GW	4	
		49IDW								130553			
	1348839								COD QSM				
					MBW					130553			
	1348840								COD QSM				
					LCSW					130553			
	1348841		7/10/2023	16:05					COD QSM				
		54IDW			MSW	1346384				130553			
	1348842		7/10/2023	16:05					COD QSM				
		54IDW			MSDW	1348841				130553			
	1348843		7/10/2023	16:05					COD QSM				
		54IDW			DUP	1346384				130553			
	1349920								WCOD QSM				
					ICV								
	1349921								WCOD QSM				
					ICB								
	1349922								WCOD QSM				
					CCV								
	1349923								WCOD QSM				
					CCB								
	1349925								WCOD QSM				
					CCV								
	1349926								WCOD QSM				
					CCB								

13 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp342B.tmp Page 1 of 1

273727

PrepWrkSht2
on 7/17/2023

Prep Batch: 130553

Date Prepped: 7/18/23

Prepped By: BCB

Date Entered:

CCV 1

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1348839	MBW 3	0	COD QSM			LIQUID			
	1348840	LCSW 2	0	COD QSM			LIQUID			
	1346384	4, 5, 6, 7		COD QSM	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	7/10/23 16:05	7/23/23	4
179047	1348149	8		COD QSM	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	7/14/23 12:55	7/29/23	4
	1348841	MSW	1346384	COD QSM		54IDW	GROUND WATER	7/10/23 16:05		
	1348842	MSDW	1348841	COD QSM		54IDW	GROUND WATER	7/10/23 16:05		
	1348843	DUP	1346384	COD QSM		54IDW	GROUND WATER	7/10/23 16:05		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp1A76.tmp

COD Data Validation Checklist

		Method: Chemical Oxygen Demand EPA 410.4			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
273727	07/19/2023	RLB	HLB	07/20/2023	Yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Does a digestion sheet accompany the data package?	---	Yes		Yes		
2. Does the digestion sheet include all reagent and standard prep log numbers?	---	Yes		Yes		
3. Was a passing calibration test applied to sample analysis?	≥0.995	Yes		Yes		
4. Was a passing ICV analyzed immediately after the calibration?	90-110%	Yes		Yes		
5. Was a passing ICB analyzed immediately after the ICV?	< |LOD|or client/project specific	Yes		Yes		
6. Were CCVs and CCB analyzed at the required frequency?	1 per 10 samples	Yes		Yes		
7. Did analyzed CCVs meet the required acceptance criteria?	90-110%	Yes		Yes		
8. Did analyzed CCBs meet the acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
9. Was a Method Blank prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
10. Was the method blank within acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
11. Was an LCS prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
12. Did the LCS meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		
13. Was an MS and MSD prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
14. Did the MS/ MSD's meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		

15. Did the MS/MSD's meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
16. Was a Duplicate prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
17. Did the Duplicate meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
18. Were the samples digested within hold time?	28 days	Yes		Yes		
19. Was the max temperature(s) for reactor(s) documented?	---	Yes		Yes		
20. Was the method specifed temperature reached?		Yes		Yes		
21. Were reagents/standards used before expiration date?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		

CHEMICAL OXYGEN DEMAND REAGENT LOG

Prep Batch(es): 130553
Date/Time/Analyst: 07/18/2023 8:45:00 RLB
Run(s): 273727
Date/Time/Analyst: 07/19/2023 11:20 RLB

Reagents:	W #	Exp Date
ICAL Preparation	54537	07/26/2023
CCV Preparation	54538	07/26/2023
LCS/ICV Preparation	54540	07/26/2023
Silver Sulfate Acid	54727	05/26/2024
Potassium Dichromate Dig Solution	54197	02/16/2024

Spiked Samples:	W #	Exp Date
Spiking Solution	54539	07/26/2023
Concentration 2000 mg/L		
Volume of Spike Used 0.2 mL		
Final Sample Volume 2.5 mL		
Final Spike Concentration 148.2 mg/L		

Date: 07/18/2023
Time: 13:45

COD DIGESTION BLOCK TEMPS

	A	B
Temperature (Max) 150°C ± 2°C:		

	E	D
Temperature (Max) 150°C ± 2°C:	105.1	

GENESYS 30 Instrument Run Logbook

Date	Start Time	End Time	Analyst	Test/Analyte	Calibration Test #	Run #/ Comments
07/19/23	10:54	11:30	RLB	COD	CODW54537	273726, 727

WANIONS IC QSM 5.0 Anion Run
273619 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348508							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1348509							WANIONS IC QSM 5.0				
		Chloride			LCSW				0			
		Nitrate Nitrogen			LCSW				0			
		Sulfate			LCSW				0			
	1348510							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			MBW				0			
		Chloride			MBW				0			
		Sulfate			MBW				0			
178962	1347302		7/12/2023	10:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										
178962	1347303		7/12/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273619 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
178962	1347304		7/12/2023	12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Sulfate										
		Chloride										
178962	1347305		7/12/2023	14:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										
	1348511		7/12/2023	10:25				ANIONS IC QSM 5.0				
		Sulfate			DUP	1347302			0			
		Chloride			DUP	1347302			0			
		Nitrate Nitrogen			DUP	1347302			0			
	1348512		7/12/2023	10:25				ANIONS IC QSM 5.0				
		Chloride			MSW	1347302			0			
		Nitrate Nitrogen			MSW	1347302			0			
		Sulfate			MSW	1347302			0			
	1348513		7/12/2023	10:25				ANIONS IC QSM 5.0				
		Sulfate			MSDW	1348512			0			
		Chloride			MSDW	1348512			0			
		Nitrate Nitrogen			MSDW	1348512			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273619 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348514						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1348515						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1348516						WANIONS IC QSM 5.0				
		Sulfate		CCV				0			
	1348517						WANIONS IC QSM 5.0				
		Sulfate		CCB				0			
178962	1347302		7/12/2023 10:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
	1348511		7/12/2023 10:25				ANIONS IC QSM 5.0				
		Nitrate Nitrogen	***RERUN***	DUP	1347302			0			
		Chloride	***RERUN***	DUP	1347302			0			
		Sulfate	***RERUN***	DUP	1347302			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273619 on 7/21/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348512		7/12/2023 10:25					ANIONS IC QSM 5.0				
		Chloride	***RERUN***	MSW	1347302				0			
		Nitrate Nitrogen	***RERUN***	MSW	1347302				0			
		Sulfate	***RERUN***	MSW	1347302				0			
	1348513		7/12/2023 10:25					ANIONS IC QSM 5.0				
		Nitrate Nitrogen	***RERUN***	MSDW	1348512				0			
		Chloride	***RERUN***	MSDW	1348512				0			
		Sulfate	***RERUN***	MSDW	1348512				0			
	1348518							WANIONS IC QSM 5.0				
		Sulfate		CCV					0			
	1348528							WANIONS IC QSM 5.0				
		Sulfate		CCB					0			

52

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpFD4C.tmp

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
273619 273621	07/13/2023	TMG	RLD	07/18/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

WANIONS IC QSM 5.0 Anion Run
273583 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348803						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICV							
		Chloride		ICV							
		Sulfate		ICV							
	1348804						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICB							
		Chloride		ICB							
		Sulfate		ICB							
	1348481						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1348482						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1348483						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273583 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
178914	1346821		7/11/2023	09:05		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride			*							
		Nitrate Nitrogen			*							
		Sulfate			*							
178914	1346822		7/11/2023	10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										
178914	1346823		7/11/2023	11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Sulfate										
		Chloride										
178914	1346824		7/11/2023	11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										
178914	1346825		7/11/2023	12:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Sulfate										
		Chloride										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273583 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348484		7/11/2023	09:05					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1346821				0			
		Chloride			DUP	1346821				0			
		Sulfate			DUP	1346821				0			
	1348485								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV					0			
		Chloride			CCV					0			
		Sulfate			CCV					0			
	1348486								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB					0			
		Chloride			CCB					0			
		Sulfate			CCB					0			
	1348487		7/11/2023	09:05					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSW	1346821				0			
		Chloride			MSW	1346821				0			
		Sulfate			MSW	1346821				0			
	1348488		7/11/2023	09:05					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSDW	1348487				0			
		Chloride			MSDW	1348487				0			
		Sulfate			MSDW	1348487				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273583 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348489						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1348490						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1348491						WANIONS IC QSM 5.0				
		Sulfate		CCV				0			
	1348492						WANIONS IC QSM 5.0				
		Sulfate		CCB				0			
178914	1346822		7/11/2023 10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Sulfate	***RERUN***								
	1348493						WANIONS IC QSM 5.0				
		Sulfate		CCV				0			
	1348494						WANIONS IC QSM 5.0				
		Sulfate		CCB				0			

58

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
273580 273581 273582 273583 273588	07/12/2023	TMG	RLD	07/18/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits		No		No	Affected sample results were "Y" flagged
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

WANIONS IC QSM 5.0 Anion Run
273708 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349081							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1349082							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB				0			
		Chloride			CCB				0			
		Sulfate			CCB				0			
179047	1348146		7/14/2023	08:45		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273708 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
179047	1348147		7/14/2023	10:25			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride											
		Nitrate Nitrogen											
		Sulfate											
179047	1348148		7/14/2023	11:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen											
		Chloride											
		Sulfate											
	1349083		7/14/2023	08:45					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1348146				0			
		Chloride			DUP	1348146				0			
		Sulfate			DUP	1348146				0			
	1349084		7/14/2023	08:45					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSW	1348146				0			
		Chloride			MSW	1348146				0			
		Sulfate			MSW	1348146				0			
	1349085		7/14/2023	08:45					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSDW	1349084				0			
		Chloride			MSDW	1349084				0			
		Sulfate			MSDW	1349084				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273708 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349086						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1349087						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1349088						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

39

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273661 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349066						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1349067						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1349068						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273661 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349069							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1349070							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB				0			
		Chloride			CCB				0			
		Sulfate			CCB				0			
179025	1347758		7/13/2023	11:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Chloride										
		Nitrate Nitrogen										
179025	1347759		7/13/2023	15:45		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Chloride										
		Sulfate										
	1349071							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273661 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349072								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB					0			
		Chloride			CCB					0			
		Sulfate			CCB					0			
	1349073		7/13/2023	15:45					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1347759				0			
		Chloride			DUP	1347759				0			
		Sulfate			DUP	1347759				0			
	1349074		7/13/2023	15:45					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSW	1347759				0			
		Chloride			MSW	1347759				0			
		Sulfate			MSW	1347759				0			
	1349075		7/13/2023	15:45					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSDW	1349074				0			
		Chloride			MSDW	1349074				0			
		Sulfate			MSDW	1349074				0			
	1349076								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV					0			
		Chloride			CCV					0			
		Sulfate			CCV					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
273661 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349077						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1349078						WANIONS IC QSM 5.0				
		Sulfate		CCV				0			
	1349079						WANIONS IC QSM 5.0				
		Sulfate		CCB				0			
	1349074		7/13/2023 15:45				ANIONS IC QSM 5.0				
		Chloride	***RERUN***	MSW 1347759				0			
		Nitrate Nitrogen	***RERUN***	MSW 1347759				0			
		Sulfate	***RERUN***	MSW 1347759				0			
	1349075		7/13/2023 15:45				ANIONS IC QSM 5.0				
		Chloride	***RERUN***	MSDW 1349074				0			
		Nitrate Nitrogen	***RERUN***	MSDW 1349074				0			
		Sulfate	***RERUN***	MSDW 1349074				0			
	1349080						WANIONS IC QSM 5.0				
		Sulfate		CCV				0			
	1349257						WANIONS IC QSM 5.0				
		Sulfate		CCB							

58

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
273657 273658 273661 27366 273708 273715	07/17/2023	TMG	RLD	07/18/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3		No		No	Affected sample results were "H" flagged
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits		No		No	Affected sample results were "Y" flagged
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Aquion Run Log - System 4

Start Date	Start Time	End Date	End Time	Analyst	Lims Run #(s)	Calibration ID#	Data File	CCV ID's	LCS ID's	Spike ID's	Total Cond.	Pressure (Mpa)	Flow (mL/min)	Comments	Reviewed/Date
05/15/23	12:41	05/16/23	02:05	TMG	271919 271920 271930	IC4679A	051523 -	IC4699 IC4702	IC4700 IC4703	IC4701 IC4704	22.07	1052.47	0.94		RLD 06/06/2023
05/16/23	9:46	05/16/23	20:29	TMG	271946 271958 271959	IC4679A	051623 -	IC4699 IC4710	IC4700 IC4711	IC4701 IC4712	22.12	1062.96	0.94		RLD 06/06/2023
05/17/23	9:23	05/18/23	08:48	TMG	IC4712A 271997 272006	IC4712A	051723 -	IC4699 IC4710	IC4700 IC4711	IC4701 IC4712	22.61	992.88	1		RLD 06/06/2023
05/18/23	13:36	05/19/23	10:58	TMG	272040	IC4712A	051823 -	IC4719 IC4722	IC4720 IC4723	IC4721 IC4724	22.44	982.31	0.98		RLD 06/06/2023
05/19/23	12:10	05/20/23	00:04	TMG	272072	IC4712A	051923 -	IC4719 IC4722	IC4720 IC4723	IC4721 IC4724	22.52	985.24	0.98		RLD 06/06/2023
05/22/23	12:33	05/23/23	09:01	TMG	272108 PT	IC4712A	052223 -	IC4719 IC4725	IC4720 IC4726	IC4721 IC4727	23.12	998.4	0.98		RLD 06/06/2023
05/23/23	10:30	05/24/23	10:49	TMG	272131 272135	IC4712A	052323 -	IC4719 IC4725	IC4720 IC4726	IC4721 IC4727	23.29	1021	0.98		RLD 06/06/2023
05/24/23	11:35	05/25/23	09:02	TMG	272170 272174 272202	IC4712A	052423 -	IC4719 IC4728	IC4720 IC4729	IC4721 IC4730	23.71	1013.36	0.98		RLD 06/06/2023
05/25/23	9:39	05/26/23	08:44	TMG	272228 272229	IC4712A	052523 -	IC4731 IC4734	IC4732 IC4735	IC4733 IC4736	22.37	985.74	0.98		RLD 06/06/2023
05/26/23	10:19	05/26/23	18:18	TMG	272271	IC4712A	052623 -	IC4731 IC4734	IC4732 IC4735	IC4733 IC4736	22.02	993.19	0.98		RLD 06/06/2023
05/30/23	8:08	05/30/23	11:30	TMG	272293ML	IC4712A	053023 -	IC4742	IC4742	IC4733 IC4736	22.97	1027.56	1		RLD 06/06/2023
05/30/23	13:58	05/31/23	00:24	TMG	272309	IC4712A	053023 -	IC4731 IC4734	IC4732 IC4735	IC4733 IC4736	22.82	1012.4	0.98		RLD 06/06/2023
05/31/23	11:21	05/31/23	20:44	TMG	272319 272330	IC4712A	053123 -	IC4731 IC4738	IC4732 IC4739	IC4733 IC4740	23	1009.89	0.98		RLD 06/06/2023
06/01/23	14:27	06/01/23	20:22	TMG	272377	IC4712A	060123 -	IC4743 IC4746	IC4744 IC4747	IC4745 IC4748	23.17	1004.76	0.98		RLD 06/06/2023
06/02/23	10:19	06/05/23	10:41	TMG	272407 272408 272417	IC4712A	060223 -	IC4743 IC4746	IC4744 IC4747	IC4745 IC4748	23.24	1014.87	0.98		
06/05/23	14:30	06/06/23	17:39	TMG	272448 272449	IC4712A	060523 -	IC4743 IC4746	IC4744 IC4747	IC4745 IC4748	23.67	1043.68	0.98		
06/07/23	7:27	06/08/23	12:14	TMG	272483 272507 IC4750A	IC4712A/IC4750A	060723 -	IC4743 IC4751	IC4744 IC4752	IC4745 IC4753	24.61	1004.61	0.98		
06/08/23	13:21	06/09/23	08:06	TMG	272553 272554 272555	IC4750A	060823 -	IC4754 IC4757	IC4755 IC4758	IC4756 IC4759	24.9	1011.24	1		
06/09/23	10:19	06/12/23	11:56	TMG	272577 272578	IC4750A	060923 -	IC4754 IC4757	IC4755 IC4758	IC4756 IC4759	25.69	1047.34	1		
06/12/23	13:58	06/12/23	18:24	TMG	272507R 272646	IC4750A	061223 -	IC4754 IC4760	IC4755 IC4761	IC4756 IC4762	22.51	1059.53	1		
06/13/23	15:03	06/14/23	09:18	TMG	272692 272693	IC4750A	061323 -	IC4754 IC4760	IC4755 IC4761	IC4756 IC4762	22.68	1060.11	1		
06/14/23	11:33	06/15/23	03:32	TMG	272724 272725 272730	IC4712A	061423 -	IC4754 IC4763	IC4755 IC4764	IC4756 IC4765	22.66	1056.91	0.98		
06/15/23	9:30	06/16/23	20:48	TMG	272756 272765 272766 272802 272803 272826	IC4750A	061523 -	IC4767 IC4770	IC4768 IC4771	IC4769 IC4772	22.7	1006.11	0.98		
06/19/23	7:48	06/20/23	09:12	TMG	272847 ML	IC4750A	061923 -	IC4767 IC4770	IC4768 IC4771	IC4769 IC4772	23.21	1033.34	1		
06/20/23	10:39	06/21/23	09:51	TMG	272896	IC4750A	062023 -	IC4767 IC4773	IC4768 IC4774	IC4769 IC4775	23.08	1009.7	0.98		
06/21/23	12:34	06/21/23	23:42	TMG	272953 272954 272964	IC4750A	062123 -	IC4767 IC4773	IC4768 IC4774	IC4769 IC4775	23.17	1020.92	0.98		
06/22/23	9:30	06/23/23	00:27	TMG	272955 272991	IC4750A	062223 -	IC4776 IC4779	IC4777 IC4780	IC4778 IC4781	23.28	1024.86	0.98		
06/23/23	11:18	06/23/23	17:55	TMG	273043 273044	IC4750A	062323 -	IC4776 IC4779	IC4777 IC4780	IC4778 IC4781	23.31	1039.09	0.98		
06/26/23	11:45	06/27/23	09:43	TMG	273128 273131	IC4750A	062623 -	IC4776 IC4779	IC4777 IC4780	IC4778 IC4781	23.48	1038.82	0.98		
06/27/23	12:56	06/27/23	21:37	TMG	273172 273173	IC4750A	062723 -	IC4776 IC4782	IC4777 IC4783	IC4778 IC4784	23.38	1044.8	0.98		
06/28/23	13:18	06/28/23	20:57	TMG	273225 273226	IC4750A	062823 -	IC4776 IC4782	IC4777 IC4783	IC4778 IC4784	22.74	1030.53	0.98		
06/30/23	12:30	07/01/23	01:22	TMG	273292 273293	IC4750A	063023 -	IC4786 IC4789	IC4787 IC4790	IC4788 IC4791	22.56	1040.4	0.98		
07/03/23	12:41	07/03/23	21:23	TMG	273355	IC4750A	070323 -	IC4786 IC4789	IC4787 IC4790	IC4788 IC4791	23.08	1058.37	0.98		
07/05/23	12:49	07/06/23	09:56	TMG	273396	IC4750A	070523 -	IC4786 IC4789	IC4787 IC4790	IC4788 IC4791	23.28	1053.94	0.98		
07/06/23	15:36	07/10/23	12:58	TMG	273444	IC4750A	070623 -	IC4794 IC4797	IC4795 IC4798	IC4796 IC4799	23.57	1052.05	0.98		
07/11/23	12:21	07/12/23	00:32	TMG	273531 273537 273539	IC4750A	071123 -	IC4794 IC4800	IC4795 IC4801	IC4796 IC4802	25.22	1052.05	0.98		
07/12/23	11:41	07/13/23	11:27	TMG	273580 273581 273582 273588	IC4750A	071223 -	IC4794 IC4800	IC4795 IC4801	IC4796 IC4802	25.93	1066.47	0.98		
07/13/23	12:25	07/14/23	11:13	TMG	273619 273621	IC4750A	071323 -	IC4803 IC4806	IC4804 IC4807	IC4805 IC4808	25.92	1205.95	0.98		
07/14/23	11:58	07/17/23	22:33	TMG	273657 273658 273661 273662 273708 273715	IC4750A	071423 -	IC4803 IC4806	IC4804 IC4807	IC4805 IC4808	26.38	1011.74	0.98		
07/18/23	12:15	07/20/23	11:11	TMG	273741 273742 273749 273754 273755 273782 273786 273787 273799	IC4750A	071823 -	IC4803 IC4809	IC4804 IC4810	IC4804 IC4811	26.5	1005.72	0.98		

WPH Analytical Run
273725 on 7/25/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
179047	1348149		7/14/2023	12:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	PH		GW	4	
		49IDW											
	1349493		7/14/2023	12:55					PH				
		49IDW			DUP	1348149				0			

2 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp805.tmp

pH Data Validation Checklist

		Method: pH EPA 150.1, SM 4500-H+B, EPA 9040C, EPA 9045D			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
273725	07/17/2023	RLB/SJP	HLB	07/19/2023	Yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Was the calibration slope recorded on the bench sheet?	95-110%	Yes		Yes		
2. Were reagents/standards used before expiration date?	---	Yes		Yes		
3. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	Yes		Yes		
4. Were the duplicates within acceptable limits?	Differ by $\leq$ 0.10 pH units	Yes		Yes		
5. Are all samples on the job lists accounted for?	---	Yes		Yes		
6. Were SM 4500-H+B samples bracketed by calibration buffer 7?	Every 10 samples, Differ by $\leq$ 0.10 pH units	Yes		Yes		

Mettler Toledo (Easy Seven) pH Calibration & Maintenance Run Logb

		pH Buffer Reference ID #			3 Point Calibration				
Date	Analyst	pH 7	pH 4	pH 10	1st Buffer	2nd Buffer	3rd Buffer	Slope (95-110%)	Temp ° C
07/17/23	SJP	WC550 EX: 12/01/2023	WC507 EX: 08/29/2023	WC453 EX: 01/31/2024	7.02	4	10.06	96%	20.2

Mettler Toledo (Easy Seven) Instrument Run Logbook					
Date	Start Time	End Time	Analyst	Analyte	Lims Run #(s)
07/17/23	15:45	16:00	RLB	PH	273723, 725

WORGANIC CARBON QSM 5.0 Analytical Run
273651 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349153								WORGANIC CARBON QSM 5.0				
					ICV								
	1349154								WORGANIC CARBON QSM 5.0				
					ICB								
	1348115								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1348116								WORGANIC CARBON QSM 5.0				
					CCB								
	1346379		7/10/2023	10:15							GW	4	
		54MW13											
	1346380		7/10/2023	10:15							GW	4	
		54TW13											
	1346381		7/10/2023	12:45							GW	4	
		54MW10											
	1346382		7/10/2023	14:00							GW	4	
		54MW12			Designated MS/MSD								
	1348117		7/10/2023	14:00									
		54MW12			DUP	1346382							
	1348118		7/10/2023	14:00									
		54MW12			MSW	1346382							
	1348119		7/10/2023	14:00									
		54MW12			MSDW	1348118							
	1348120												
					CCV								
	1348121												
					LCSW								
	1348122												
					MBW								
	1346383		7/10/2023	15:30							GW	4	
		54MW1											
178914	1346821		7/11/2023	09:05			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW4			Designated MS/MSD								
	1348123		7/11/2023	09:05					ORGAN CARBON T QSM 5.0				
		13MW4			DUP	1346821				0			
	1348124		7/11/2023	09:05					ORGAN CARBON T QSM 5.0				
		13MW4			MSW	1346821				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpE63.tmp Page 1 of 1

WORGANIC CARBON QSM 5.0 Analytical Run
273651 on 7/18/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1348125		7/11/2023 09:05				ORGAN CARBON T QSM 5.0				
		13MW4		MSDW 1348124				0			
178914	1346822		7/11/2023 10:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW3									
178914	1346823		7/11/2023 11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW04									
178914	1346824		7/11/2023 11:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49TW04									
178914	1346825		7/11/2023 12:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW2									
178962	1347302		7/12/2023 10:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW6									
	1348126						WORGANIC CARBON QSM 5.0				
				CCV				0			
	1348127						WORGANIC CARBON QSM 5.0				
				CCB				0			
178962	1347303		7/12/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW01									
178962	1347304		7/12/2023 12:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49TW01									
178962	1347305		7/12/2023 14:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW01-EQB									
	1348128						WORGANIC CARBON QSM 5.0				
				CCV				0			
	1348129						WORGANIC CARBON QSM 5.0				
				CCB				0			

31 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpE63.tmp

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
273651 273652	07/14/2023	TMG	RLD	07/18/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	Yes		Yes		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	Yes		Yes		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	Yes		Yes		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

TOC Instrument Run Logbook

Start Date	Start Time	End Date	End Time	Analyst	LIMs Run #	Matrix (S or W)	Calibration ID #	COMMENTS
6/9/2023	10:08	6/9/2023	18:29	TMG	272579	W	0651	
6/12/2023	12:02	6/12/2023	17:43	TMG	272625, 272626	W	0651	
6/13/2023	12:33	6/13/23	13:41	TMG	272703	S	0646	MDL1, LOD, LOQ
6/14/2023	8:50	6/14/2023	9:31	TMG	272703	S	0646	MDL2
6/14/2023	10:05	6/14/2023	10:49	TMG	272702	S	0658	computer glitch
6/14/2023	11:10	6/14/2023	12:26	TMG	272702R	S	0658	
6/19/2023	10:19	6/19/2023	16:38	TMG	271162, 272852, 272851	W	0651	LOD, LOQ
6/20/2023	9:41	6/20/2023	13:03	TMG	272888	S	0658	
6/21/2023	10:12	6/21/2023	12:37	TMG	272940	S	0658	
6/26/2023	9:18	6/26/2023	16:35	TMG	273091, 273092	W	0651	LL CCV
6/28/2023	12:10	6/28/2023	17:42	TMG	273204, 273205	W	0651	
7/3/2023	9:19	7/3/2023	15:13	TMG	273205R, 273284, 273285	W	0651	CCV1
7/5/2023	11:21	7/5/2023	14:37	TMG	273385R	S	0658	TMG 7/6/2023
7/5/2023	10:44	7/5/2023	11:06	TMG	273385	S	0658	computer glitch
7/10/2023	13:36	7/10/2023	15:50	TMG	273495	S	0658	
7/12/2023	9:23	7/12/2023	18:37	TMG	273567, 273568	W	0637	
7/13/2023	9:30	7/13/2023	11:49	TMG	273604	W	0637	TIC
7/14/2023	11:01	7/14/2023	20:16	TMG	273651, 273652	W	0637	

Reviewed By: RD 7/25/2023

WORGANIC CARBON QSM 5.0 Analytical Run
273734 on 7/19/2023

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1349554								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1349555								WORGANIC CARBON QSM 5.0				
					LCSW					0			
	1349556								WORGANIC CARBON QSM 5.0				
					MBW					0			
179025	1347758		7/13/2023	11:15			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW1											
179025	1347759		7/13/2023	15:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		50MW2											
	1349557								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1349558								WORGANIC CARBON QSM 5.0				
					CCB					0			
179047	1348146		7/14/2023	08:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW2											
	1349559		7/14/2023	08:45					ORGAN CARBON T QSM 5.0				
		48MW2			DUP	1348146				0			
	1349560		7/14/2023	08:45					ORGAN CARBON T QSM 5.0				
		48MW2			MSW	1348146				0			
	1349561		7/14/2023	08:45					ORGAN CARBON T QSM 5.0				
		48MW2			MSDW	1349560				0			
179047	1348147		7/14/2023	10:25			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW3											
179047	1348148		7/14/2023	11:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW02											
	1349562								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1349563								WORGANIC CARBON QSM 5.0				
					CCB					0			

17 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
273704 273734 273735	07/18/2023	TMG	RLD	07/19/2023	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	Yes		Yes		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	Yes		Yes		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	Yes		Yes		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

TOC Instrument Run Logbook

Start Date	Start Time	End Date	End Time	Analyst	LIMs Run #	Matrix (S or W)	Calibration ID #	COMMENTS
7/17/2023	10:10	7/17/2023	18:48	TMG	278702, 278703, 278704	W	0637	LL CCV
7/18/2023	9:44	7/18/2023	17:46	TMG	278708R, 278709R, 278734, 278735	W	0637	
7/20/2023	10:32	7/20/2023	14:33	TMG	278825	W	0637	

Reviewed By:_____

CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757)819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: K. Martindale, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 178914
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 49
Logged By: erc PM: BMS

gram:
1 RCRA SDWA NPDES
l Waste Other _____
#

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603
Hampton, VA 23669

Invoice To:*
EMAIL:
Company: Same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056	Trip Blank	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test							
7/11	0000	GW	G		49TB-1	N	2				Trip Blank	2		1346820
7/11	0905	GW	G		13MW4	N	9	6	3	3		21	X	21
7/11	1020	GW	G		13MW3	N	3	2	1	1		7		22
7/11	1125	GW	G		49MW04	N	3	2	1	1		7		23
7/11	1125	GW	G		49TW04	N	3	2	1	1		7		24
7/11	1230	GW	G		13MW2	N	3	2	1	1		7		25

Relinquished By:	Date/Time	Received By:	Date/Time
	7/11/2023 1500	Fedex	7/11/2023 1500
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		raw GRL	7/12 1020

Lab Use Only
Ice Present (Yes) No
Temp 3.6 IR Gun 28
Cooler # 5526

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 3.1

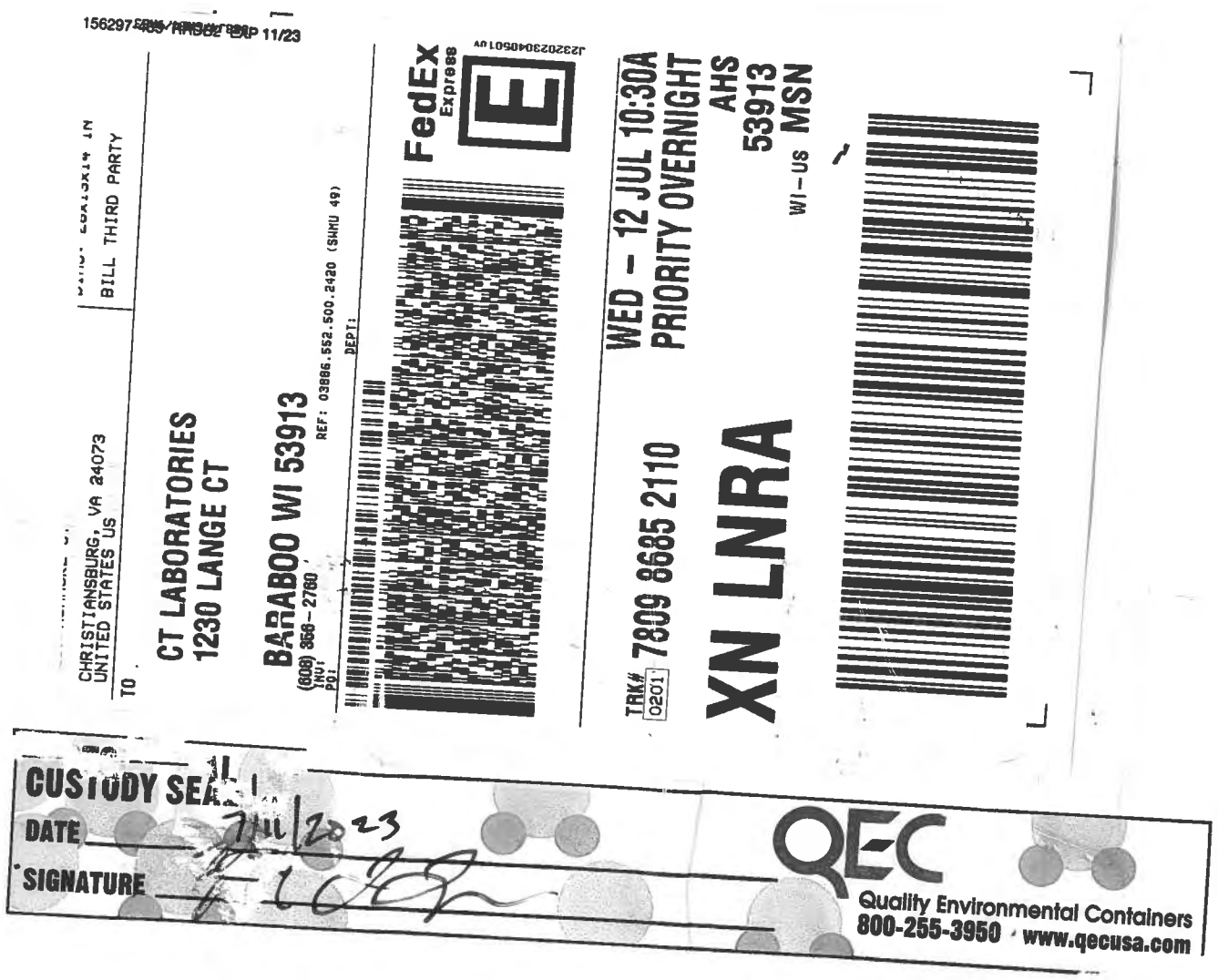
Actual Temperature

IR Gun # 28

Initials

Date 7/12/23 Time 10:20

Cooler #: 5526



PM Login Confirmation

Folder #: 178914

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 179606

Project Manager: *BMS* **Date Received:** 07/12/23 **Log Date:** 07/12/2023

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 3.1 oC

SAMPLE #: 1346820 **DESCR:** 49TB-1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 7/11/2023 **Time:** 00:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/25/2023	7/24/2023		Logged

SAMPLE #: 1346821 **DESCR:** 13MW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 09:05

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y* ***DESIGNATED MATRIX SPIKE***	7/25/2023	7/24/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)			***DESIGNATED MATRIX SPIKE***	7/25/2023	7/24/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)			***DESIGNATED MATRIX SPIKE***	7/13/2023	7/24/2023		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp7462.tmp

Folder #: 178914 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1346821 **DESCR:** 13MW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 09:05

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)			***DESIGNATED MATRIX SPIKE***	8/8/2023	7/24/2023		Logged

SAMPLE #: 1346822 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 10:20

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	7/25/2023	7/24/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/25/2023	7/24/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/13/2023	7/24/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/8/2023	7/24/2023		Logged

SAMPLE #: 1346823 **DESCR:** 49MW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 11:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	7/25/2023	7/24/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/25/2023	7/24/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/13/2023	7/24/2023		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp7462.tmp

Folder #: 178914 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1346823 **DESCR:** 49MW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 11:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/8/2023	7/24/2023		Logged

SAMPLE #: 1346824 **DESCR:** 49TW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 11:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/25/2023	7/24/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/25/2023	7/24/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/13/2023	7/24/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/8/2023	7/24/2023		Logged

SAMPLE #: 1346825 **DESCR:** 13MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 12:30

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/25/2023	7/24/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/25/2023	7/24/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/13/2023	7/24/2023		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp7462.tmp

Folder #: 178914 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1346825 **DESCR:** 13MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/11/2023 **Time:** 12:30

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/8/2023	7/24/2023		Logged

Invoice Number: 179606 **Preliminary Invoice Estimate:** $1,264.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	7	$12.00	0.00	$84.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	7	$12.00	0.00	$84.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	7	$12.00	0.00	$84.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	7	$16.00	0.00	$112.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	7	$16.00	0.00	$112.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	7	$16.00	0.00	$112.00
ORGAN CARBON T QSM 5.0	GROUND WATER	7	$28.00	0.00	$196.00
VOC 8260 QSM 5.0	GROUND WATER	7	$60.00	0.00	$420.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**7**	TOC
UNPRES PL	**7**	ANIONS
VOA HCL	**37**	GAS,VOC

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp7462.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	178914	Print Date / Time:	07/12/2023	10:44	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	07/12/2023	10:20	DJL
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	07/12/2023	10:44	erc
Project Phase:	RADFORD, VA	Project #:			PM: BMS
Coolers:	5526	Temperature:	3.1 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	7809 8685 2110		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

ONE (1) CUSTODY SEAL WAS PRESENT AND INTACT UPON RECEIPT (DATED 7/11/2023 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346820 49TB-1				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346821 13MW4				
	UNPRES PL	1	/	Anions
	UNPRES PL	1	N / N	ANIONS
	UNPRES PL	1	N / N	ANIONS
	Total # of Containers of Type (*UNPRES PL*) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346821 13MW4				
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC
	VOA HCL	1	N / N	GAS,VOC

		VOA HCL	1	N	/ N	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 15**			

1346821	13MW4					
		H2SO4 PL	1	Y	/ N	TOC
		H2SO4 PL	1	Y	/ N	TOC
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 3**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346822	13MW3				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1346822	13MW3				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1346822	13MW3				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346823	49MW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1346823	49MW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1346823	49MW04				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346824	49TW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1346824	49TW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC

178914

		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**			
1346824	49TW04					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1346825	13MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1346825	13MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**		
1346825	13MW2				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		

Condition Code *Condition Description*

1 Sample Received OK

178914

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: K. Martindale, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 178962
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 49
Logged By: erc PM: BMS

RCRA SDWA NPDES
Waste Other _____

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:*
EMAIL:
Company:
Address: Same

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																
7/12/23	0000	GW	G		49TB-2	N	2														2		1397301
7/12	1025	GW	G		48MW6	N	3	2	1	1											7		02
7/12	1255	GW	G		49MW01	N	3	2	1	1											7		03
7/12	1255	GW	G		49TW01	N	3	2	1	1											7		04
7/12	1415	GW	G		49MW01-EQB	N	3	2	1	1											7		05

Relinquished By:	Date/Time	Received By:	Date/Time
	7/12/2023 1800	Fedex	7/12/2023 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			7/13/23 1045

Lab Use Only
Ice Present Yes No
Temp 5.1 IR Gun 28
Cooler # 6457

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 3.1

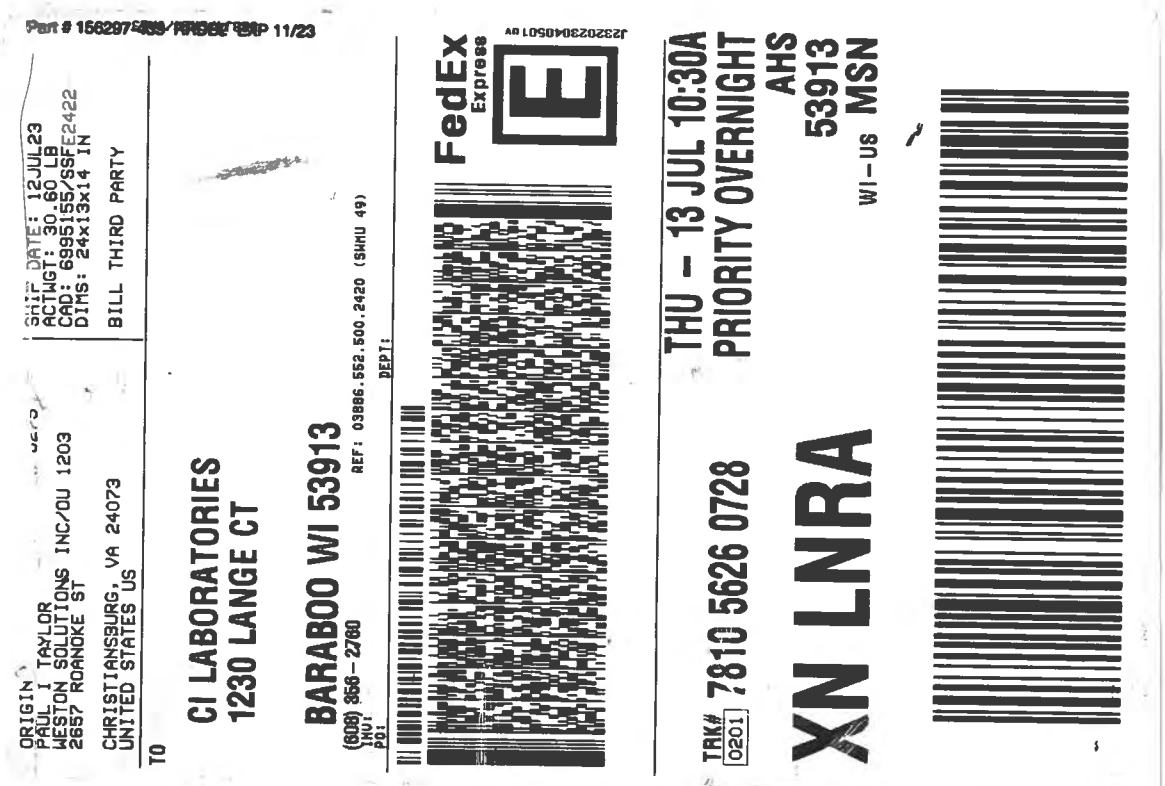
Actual Temperature _____

IR Gun # 28

Initials DL

Date 7/13/23 Time 10:45

Cooler #: 6457



PM Login Confirmation

Folder #: 178962

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 179653

Project Manager: *BMS* **Date Received:** 07/13/23 **Log Date:** 07/13/2023

Report To: ANTHONY PACE CC:
2 EATON STREET

HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Collected By:
Collector's Phone: 757-819-5310

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1

WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Arrival Temperature: 5.1 oC

SAMPLE #: 1347301 **DESCR:** 49TB-2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 7/12/2023 **Time:** 00:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/26/2023	7/25/2023		Logged

SAMPLE #: 1347302 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/12/2023 **Time:** 10:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/26/2023	7/25/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/26/2023	7/25/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/14/2023	7/25/2023		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD149.tmp

Folder #: 178962 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1347302 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/12/2023 **Time:** 10:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/9/2023	7/25/2023		Logged

SAMPLE #: 1347303 **DESCR:** 49MW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/12/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/26/2023	7/25/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/26/2023	7/25/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/14/2023	7/25/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/9/2023	7/25/2023		Logged

SAMPLE #: 1347304 **DESCR:** 49TW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/12/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/26/2023	7/25/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/26/2023	7/25/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/14/2023	7/25/2023		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD149.tmp

Folder #: 178962 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1347304 **DESCR:** 49TW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/12/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/9/2023	7/25/2023		Logged

SAMPLE #: 1347305 **DESCR:** 49MW01-EQB **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/12/2023 **Time:** 14:15

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	7/26/2023	7/25/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/26/2023	7/25/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/14/2023	7/25/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/9/2023	7/25/2023		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD149.tmp

Folder #: 178962 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

Invoice Number: 179653 **Preliminary Invoice Estimate:** $748.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	4	$12.00	0.00	$48.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	4	$12.00	0.00	$48.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	4	$12.00	0.00	$48.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	4	$16.00	0.00	$64.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	4	$16.00	0.00	$64.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	4	$16.00	0.00	$64.00
ORGAN CARBON T QSM 5.0	GROUND WATER	4	$28.00	0.00	$112.00
VOC 8260 QSM 5.0	GROUND WATER	4	$60.00	0.00	$240.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**4**	TOC
UNPRES PL	**4**	Anions
VOA HCL	**22**	VOC

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD149.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	178962	Print Date / Time:	07/13/2023	11:03	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	07/13/2023	10:45	DJL
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	07/13/2023	11:03	erc
Project Phase:	RADFORD, VA	Project #:			PM: BMS
Coolers:	6457	Temperature:	5.1 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	7810 5626 0728		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT (BOTH WERE DATED 7/12/2023 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1347301 49TB-2				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1347302 48MW6				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1347302 48MW6				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1347302 48MW6				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1347303 49MW01				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			

1347303	49MW01					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1347303	49MW01					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1347304	49TW01				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1347304	49TW01				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1347304	49TW01				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1347305	49MW01-EQB				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1347305	49MW01-EQB				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1347305	49MW01-EQB				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Condition Code Condition Description

1 Sample Received OK

178962

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: K. Martindale, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 179025
Company: WESTON SOLUTIONS, INC
Project: RADFORD AAP SWMU49
Logged By: erc PM: BMS

ogram:
M RCRA SDWA NPDES
olid Waste Other _____
O #

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603
Hampton, VA 23669

Invoice To:*
EMAIL:
Company:
Address: Same

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
7/13/23	0000	GW	G		49TB-3	N	2				Trip Blank 2		347757
7/13	1115	GW	G		48MW1	N	3	2	1	1	7		58
7/13	1545	GW	G		50MW2	N	3	2	1	1	7		59

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By	Date/Time	Received By	Date/Time
	7/13/2023	Fedex	7/13/2023
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present (Yes) No
Temp 4.6 IR Gun 27
Cooler # 6235

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 4.1

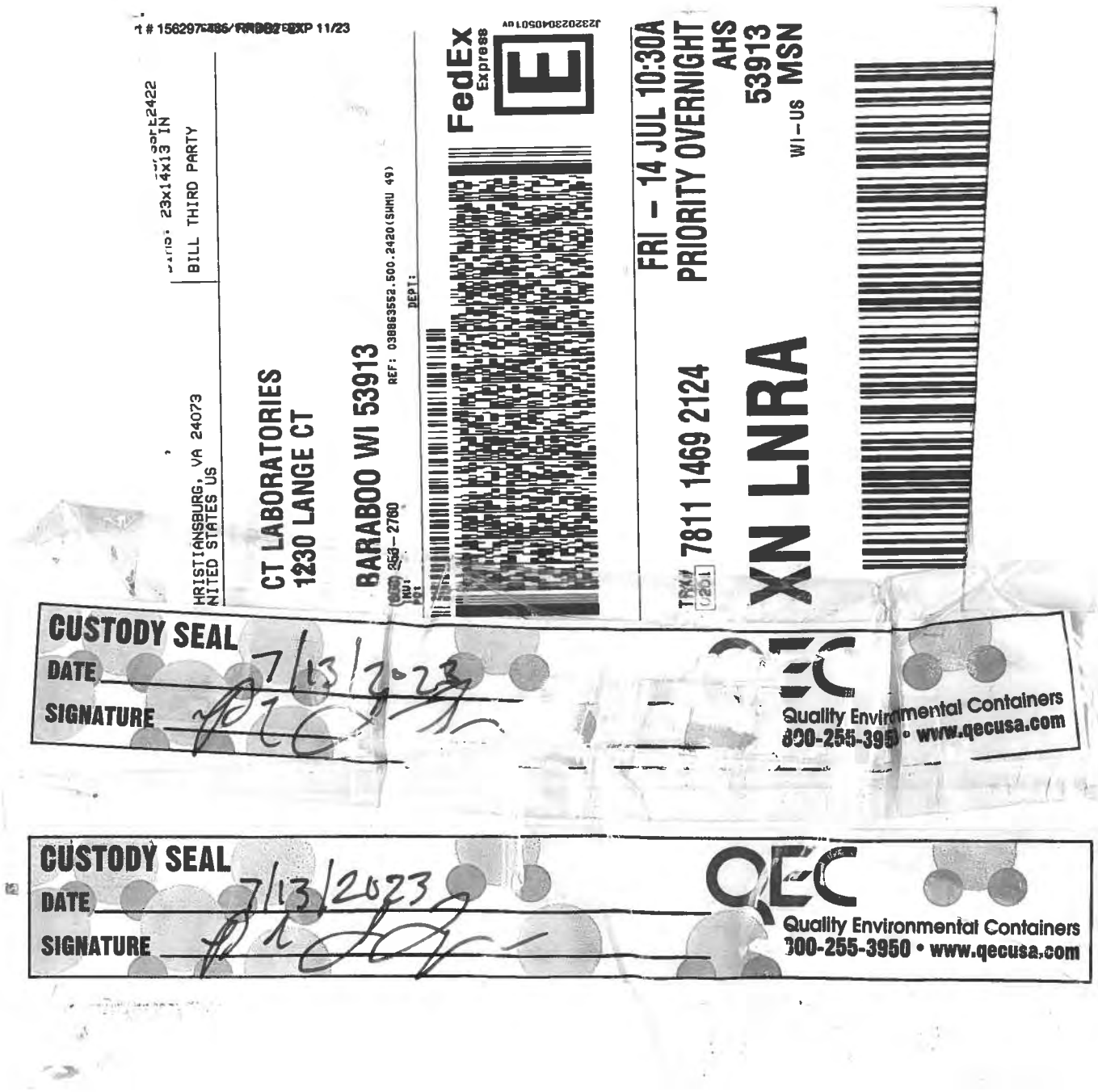
Actual Temperature _____

IR Gun # 27

Initials DL

Date 7/14/23 Time 10:30

Cooler #: 6235



PM Login Confirmation

Folder #: 179025

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 179716

Project Manager: *BMS* **Date Received:** 07/14/23 **Log Date:** 07/14/2023

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 4.1 oC

SAMPLE #: 1347757 **DESCR:** 49TB-3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 7/13/2023 **Time:** 00:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/27/2023	7/26/2023		Logged

SAMPLE #: 1347758 **DESCR:** 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/13/2023 **Time:** 11:15

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/27/2023	7/26/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/27/2023	7/26/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/15/2023	7/26/2023		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpB4E6.tmp

Folder #: 179025 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1347758 **DESCR:** 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/13/2023 **Time:** 11:15

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/10/2023	7/26/2023		Logged

SAMPLE #: 1347759 **DESCR:** 50MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/13/2023 **Time:** 15:45

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	7/27/2023	7/26/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/27/2023	7/26/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/15/2023	7/26/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/10/2023	7/26/2023		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpB4E6.tmp

Folder #: 179025 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

Invoice Number: 179716 **Preliminary Invoice Estimate:** $404.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	2	$12.00	0.00	$24.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	2	$12.00	0.00	$24.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	2	$12.00	0.00	$24.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	2	$16.00	0.00	$32.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	2	$16.00	0.00	$32.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	2	$16.00	0.00	$32.00
ORGAN CARBON T QSM 5.0	GROUND WATER	2	$28.00	0.00	$56.00
VOC 8260 QSM 5.0	GROUND WATER	2	$60.00	0.00	$120.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**2**	TOC
UNPRES PL	**2**	Anions
VOA HCL	**12**	GAS,VOC

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpB4E6.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	179025	Print Date / Time:	07/14/2023	10:50	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	07/14/2023	10:30	DJL
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	07/14/2023	10:50	erc
Project Phase:	RADFORD, VA	Project #:			PM: BMS
Coolers:	6235	Temperature:	4.1 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	7811 1469 2124		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT (BOTH WERE DATED 7/13/2023 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1347757 49TB-3				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1347758 48MW1				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1347758 48MW1				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1347758 48MW1				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1347759 50MW2				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			

1347759 50MW2

VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC

Total # of Containers of Type (*VOA HCL*) = 5

1347759 50MW2

H2SO4 PL	1	Y	/	N	TOC

Total # of Containers of Type (*H2SO4 PL*) = 1

Condition Code	*Condition Description*
1	Sample Received OK

179025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757)819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: K. Martindale, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 179047
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 49
Logged By: erc PM BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____
PO #

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603
Hampton, VA 23669

Invoice To:*
EMAIL:
Company:
Address: Same

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	COD 410.4	pH 9040C	TAL Metals								Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																	
7/14	0000	GW	G		49TB-4	N	2											Trip Blank			2		1348130
7/14	0845	GW	G		48MW2	N	3	2	1	1											7		46
7/14	1025	GW	G		48MW3	N	3	2	1	1											7		47
7/14	1155	GW	G		49MW02	N	3	2	1	1											7		48
7/14	1255	GW	G		49IDW	N					1	1	1								3		49

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	7/14/2023 1400	Fedex	7/01/2023 1400
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			7/15 1200

Lab Use Only
Ice Present (Yes) No
Temp 1.6 IR Gun 27
Cooler # XXX

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 1.6

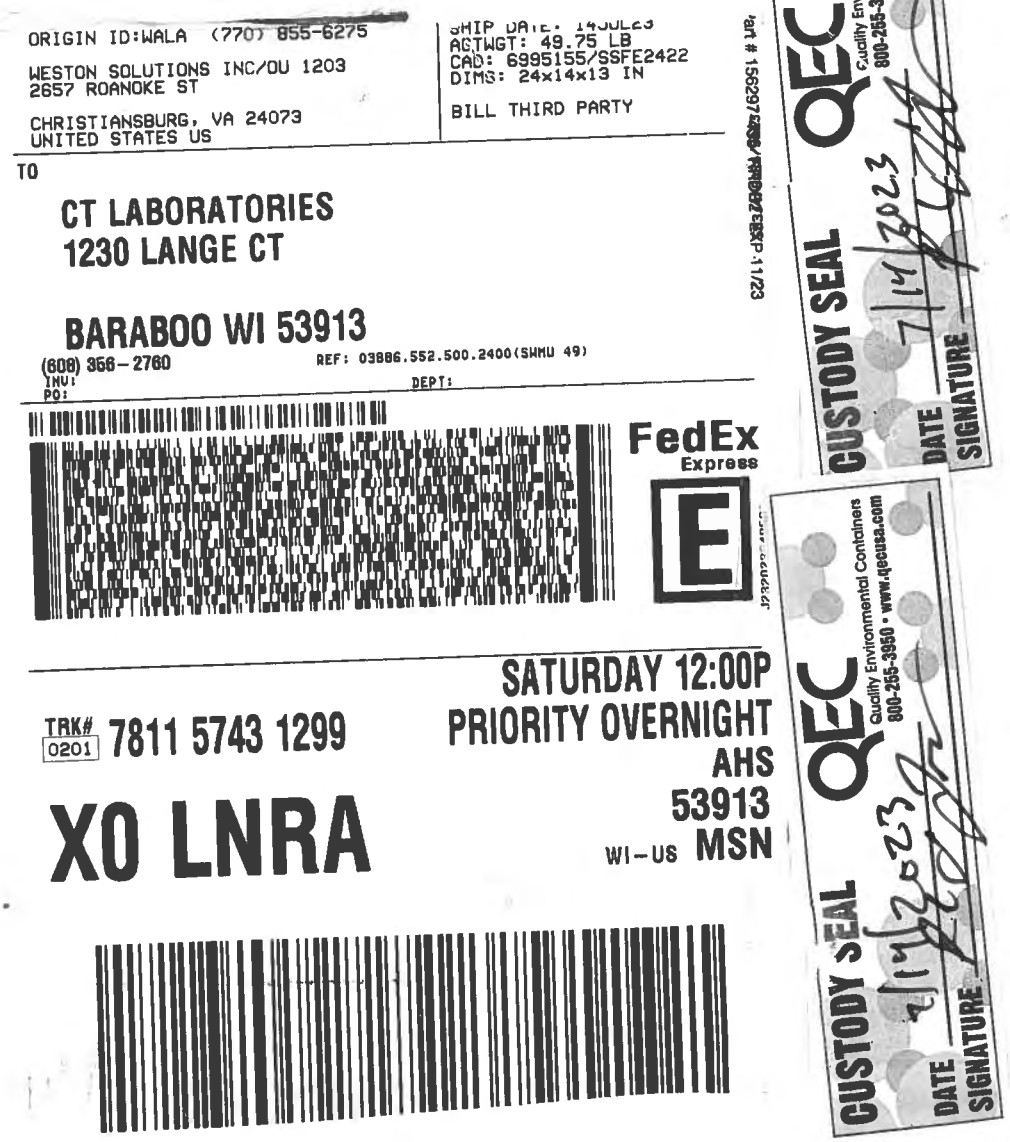
Actual Temperature _____

IR Gun # 27

Initials BM for BLS

Date 7/15/23 Time 1200

Cooler #: XXX



PM Login Confirmation

Folder #: 179047

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 179738

Project Manager: *BMS* **Date Received:** 07/15/23 **Log Date:** 07/17/2023

Report To: ANTHONY PACE CC:
2 EATON STREET

HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Collected By:
Collector's Phone: 757-819-5310

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1

WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Arrival Temperature: 1.6 oC

SAMPLE #: 1348130 **DESCR:** 49TB-4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 7/14/2023 **Time:** 00:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/28/2023	7/29/2023		Logged

SAMPLE #: 1348146 **DESCR:** 48MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/14/2023 **Time:** 08:45

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/28/2023	7/29/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/28/2023	7/29/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/16/2023	7/29/2023		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp26E.tmp

Folder #: 179047 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1348146 **DESCR:** 48MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/14/2023 **Time:** 08:45

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/11/2023	7/29/2023		Logged

SAMPLE #: 1348147 **DESCR:** 48MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/14/2023 **Time:** 10:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/28/2023	7/29/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/28/2023	7/29/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/16/2023	7/29/2023		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/11/2023	7/29/2023		Logged

SAMPLE #: 1348148 **DESCR:** 49MW02 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/14/2023 **Time:** 11:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	7/28/2023	7/29/2023		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				7/28/2023	7/29/2023		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				7/16/2023	7/29/2023		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp26E.tmp

Folder #: 179047 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1348148 **DESCR:** 49MW02 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/14/2023 **Time:** 11:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				8/11/2023	7/29/2023		Logged

SAMPLE #: 1348149 **DESCR:** 49IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 7/14/2023 **Time:** 12:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9040C)					7/29/2023		Logged
989	COD QSM	(EPA 410.4)					7/29/2023		Logged
1183	ICP K TOTAL QSM 5.0	(EPA 6010C)					7/29/2023		NeedPrep
1190	ICP NA TOTAL QSM 5.0	(EPA 6010C)					7/29/2023		NeedPrep
1200	ICP TOTAL QSM 5.0	(EPA 6010C)					7/29/2023		NeedPrep
			Total Aluminum						
			Total Antimony						
			Total Arsenic						
			Total Barium						
			Total Beryllium						
			Total Cadmium						
			Total Calcium						
			Total Chromium						
			Total Cobalt						
			Total Copper						
			Total Iron						
			Total Lead						
			Total Magnesium						
			Total Manganese						
			Total Nickel						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp26E.tmp

Folder #:	179047	Company:	*WESTON SOLUTIONS, INC.*	Project:	RADFORD AAP SWMU 49

SAMPLE #:	1348149	DESCR: 49IDW	PRIMARY / DETAILED MATRIX:	AQUEOUS / GROUND WATER	SAMPLED: 7/14/2023	Time: 12:55
CLIENT SAMPLE #:			DETAILED SITE/POINT ID INFORMATION:			

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Total Selenium						
			Total Silver						
			Total Thallium						
			Total Vanadium						
			Total Zinc						
1208	MERCURY TOTAL QSM 5.0	(EPA 7470A)					7/29/2023		NeedPrep

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp26E.tmp

Invoice Number: 179738 **Preliminary Invoice Estimate:** $704.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	3	$12.00	0.00	$36.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	3	$12.00	0.00	$36.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	3	$12.00	0.00	$36.00
COD QSM	GROUND WATER	1	$18.00	0.00	$18.00
ICP K TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP NA TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Aluminum	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Antimony	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Arsenic	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Barium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Beryllium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cadmium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Calcium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Chromium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cobalt	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Copper	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Iron	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Lead	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Magnesium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Manganese	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Nickel	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Selenium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Silver	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Thallium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Vanadium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Zinc	GROUND WATER	1	$3.50	0.00	$3.50
MERCURY TOTAL QSM 5.0	GROUND WATER	1	$23.00	0.00	$23.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	3	$16.00	0.00	$48.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	3	$16.00	0.00	$48.00

METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	3	$16.00	0.00	$48.00
ORGAN CARBON T QSM 5.0	GROUND WATER	3	$28.00	0.00	$84.00
PH	GROUND WATER	1	$10.00	0.00	$10.00
VOC 8260 QSM 5.0	GROUND WATER	3	$60.00	0.00	$180.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**4**	COD
HNO3	**1**	HG,ICP,K,NA
UNPRES PL	**4**	Anions
VOA HCL	**17**	VOC

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	179047	Print Date / Time:	07/17/2023	07:58	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	07/15/2023	12:00	BRB
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	07/17/2023	07:58	erc
Project Phase:	RADFORD, VA	Project #:			PM: BMS
Coolers:	XXXX	Temperature:	1.6 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	7811 5743 1299		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT (DATED 7/14/2023 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1348130 49TB-4				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1348146 48MW2				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1348146 48MW2				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1348146 48MW2				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1348147 48MW3				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			

1348147	48MW3					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**		
1348147	48MW3					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1348148	49MW02				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) =	**1**	
1348148	49MW02				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**	
1348148	49MW02				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1348149	49IDW				
		H2SO4 PL	1	Y / N	COD
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**	
1348149	49IDW				
		HNO3	1	Y / N	HG,ICP,K,NA
		Total # of Containers of Type	(***HNO3***) =	**1**	
1348149	49IDW				
		UNPRES PL	1	/	pH
		Total # of Containers of Type	(***UNPRES PL***) =	**1**	

Condition Code	*Condition Description*
1	Sample Received OK

179047

APPENDIX B-2
DATA VALIDATION REPORTS

VALIDATA
Chemical Services, Inc.
(770) 232-0130
(770) 232-5082 (Fax)
2159 Wynnton Pointe, Duluth, GA 30097
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	Weston Solutions, Inc.
SITE NAME:	Radford Army Ammunitions Plant – January 2023 Sampling
CONTRACTED LAB:	CT Laboratories LLC, Eurofins South Bend, SGS Orlando
QA/QC LEVEL:	EPA Stage 2B and 4
EPA SOW/METHODS:	EPA and SW-846 Methods
VALIDATION GUIDELINES:	*Radford Army Ammunitions Plant, Radford Virginia, SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan, SWMU 54 Interim Measures Work Plan, QSM 5.1, SW 846 Methods, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 2017; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2017
SAMPLE MATRIX:	Water
TYPE OF ANALYSIS:	Volatile Organics (VOA), Dissolved Gases, Perchlorate, Explosives, Total Metals, Total Mercury, Anions, Total Organic Carbon (TOC), Total Inorganic Carbon (TIC), Chlorate*, Chemical Oxygen Demand (COD), pH
SDG NUMBER:	175065
SAMPLING DATES:	January 24-27, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
TB-1	1283699	Water	X	
13MW5	1283670	Water	X	X
13MW4	1283671	Water	X	X
13MW3	1283672	Water	X	X
49MW04	1283673	Water	X	X
49TW04	1283674	Water	X	X
13MW2	1283675	Water	X	X

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
49MW05	1283676	Water	X	X
TB-2	1284314	Water	X	
48MW7	1284315	Water	X	X
48MW6	1284316	Water	X	X
48MW4	1284317	Water	X	X
48MW1-EQB	1284318	Water	X	X
49MW03	1284319	Water	X	X
49MW2	1284320	Water	X	X
48MW3	1284321	Water	X	X
48TW3	1284322	Water	X	X
49MW01	1284323	Water	X	X
50MW2	1284324	Water	X	
48MW1	1137438	Water	X	X
13MW5	1283670MS	Water	X	X
13MW5MSD	1283670MSD	Water	X	X
48MW6MS	1284316MS	Water	X	
48MW6MSD	1284316MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
49IDW	1284325	Water	X	X
49IDWMS	1284325MS	Water	X	
49IDWMSD	1248325MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	Anions	TOC
13MW5	1283670	Water	X	X
13MW5DL	1283670DL	Water	X	
13MW4	1283671	Water	X	X
13MW4DL	1283671DL	Water	X	
13MW3	1283672	Water	X	X
13MW3DL	1283672DL	Water	X	
49MW04	1283673	Water	X	X
49TW04	1283674	Water	X	X
13MW2	1283675	Water	X	X
49MW05	1283676	Water	X	X
48MW7	1283979	Water	X	X
48MW6	1283980	Water	X	X
48MW6DL	1283980DL	Water	X	

48MW1	1284317	Water	X	X
48MW1-EQB	1284318	Water	X	X
49MW03	1284319	Water	X	X
48MW2	1284320	Water	X	
48MW3	1284321	Water	X	X
48MW3DL	1284321DL	Water	X	
48TW3	1284322	Water	X	X
48TW3DL	1284322DL	Water	X	
49MW01	1284323	Water	X	
50MW2	1284324	Water	X	X
50MW2DL	1284324DL	Water	X	
13MW5MS	1283670MS	Water	X	X
13MW5MSD	1383670MSD	Water	X	X
48MW7MS	1283979MS	Water	X	
48MW7MSD	1283979MSD	Water	X	
48MW1MS	1284317MS	Water	X	
48MW1MSD	1284317MSD	Water	X	
50MW2MS	1284324MS	Water		X
50MW2MSD	1284324MSD	Water		X

Client Sample #	Lab Sample #	Matrix	COD	pH
49IDW	1284325	Water	X	X
49IDWMD	1284325MD	Water		X
49IDWMS	1284325MS	Water	X	
49IDWMSD	1284325MSD	Water	X	

SDG NUMBER: 175012
SAMPLING DATES: January 23 & 25, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
54IDW	1282988	Water	X	X
54IDWMS	1282988MS	Water	X	X
54IDWMSD	1282988MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	Anions	TOC
54MW13	1282988	Water	X	X
54TW13	1282989	Water	X	X
54MW10	1282990	Water	X	X
54MW10DL	1282990DL	Water	X	
54MW12	1283772	Water	X	X
54MW1	1283773	Water	X	X
54MW13MS	1282988MS	Water	X	
54MW13MSD	1282988MSD	Water	X	
54MW12MS	1283772MS	Water	X	X
54MW12MSD	1283772MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	TIC	Chlorate*
54MW13	1282988	Water	X	X
54TW13	1282989	Water	X	X
54MW10	1282990	Water	X	X
54MW12	1283772	Water	X	X
54MW1	1283773	Water	X	X
54MW10MS	1282990MS	Water		X
54MW10MSD	1282990MSD	Water		X
54MW12MS	1283772MS	Water		X
54MW12MSD	1283772MSD	Water		X

Client Sample #	Lab Sample #	Matrix	COD	pH
54IDW	1282988	Water	X	X
54IDWMS	1282988MS	Water	X	X
54IDWMSD	1282988MSD	Water	X	X

SDG NUMBER: FC2128
SAMPLING DATES: January 23, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Explosives	Perchlorate
54MW13	FC2128-1	Water	X	X
54TW13	FC2128-2	Water	X	X

54MW10	FC2128-3	Water	X	X
54MW13MS	FC2128-1MS	Water	X	
Client Sample #	Lab Sample #	Matrix	Explosives	Perchlorate
54MW13MSD	FC2128-1MSD	Water	X	

SDG NUMBER: FC2220
SAMPLING DATES: January 25, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Explosives	Perchlorate
54MW12	FC2200-1	Water	X	X
54MW1	FC2200-2	Water	X	X
54MW12MS	FC2200-1MS	Water	X	X
54MW12MSD	FC2200-1MSD	Water	X	X

* -Analysis reported chlorate and chlorite
**- analysis was for 22 analytes by Method 6010C.

All fractions were validated at Stage 4, except Metals and Mercury, which were validated at Stage 2B.

Suffix Codes: DL = DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RA = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Sandra Nacquin

DATA VALIDATION SUMMARY

CT Laboratories LLC – 175065 - Organics & Inorganics

VOLATILE ORGANICS (VOA)

SUMMARY

I.) General:

The analyses for Volatile Organics (VOA) were performed according to SW 846 Method 8260B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

It was noted in the VOC sample preparation that the pH (7) for sample 48MW7 was greater than the QC limit of 2. Since the sample was analyzed within the 7-day QC limit for unpreserved samples, no data qualification was necessary.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

The average RRF for 1,4-dioxane (0.003) for the standards analyzed on 1/3/23 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data

qualification based on the RRF was necessary.

All other Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

The RRF for 1,4-dioxane (0.0033) for the standards run on 1/3/23 at 17:20 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

Continuing Calibration:

The RRF for 1,4-dioxane (0.0033) for the standards run on 2/1/23 at 09:47 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The Percent Differences (%Ds) for the standards run on 2/1/23 at 09:47 on instrument VMS2 exceeded the 20% QC limit for the following compounds:

Trichlorofluoromethane	-22.5%
Freon 113	-22.0%
Methylcyclohexane	-22.1%

The results for these compounds in the SDG samples, which were all non-detect, were qualified as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

The following compounds were reported in associated equipment blank 48MW1-EQB:

Bromodichloromethane	0.65 ug/L
Chloroform	1.2 ug/L
Dibromochloromethane	0.88 ug/L

Since the blank result for chloroform was less than the LOD, the chloroform result for sample

13MW3, which was less than the LOD, was qualified as undetected (U) with the result raised to the LOD. All other associated sample results were either reported as non-detect or were greater than the action level, so no further data qualification based on this blank contamination was necessary.

Trip Blanks:

There were no detections in the associated trip blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using samples 13MW5 and 48MW6. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 48MW3 / 48TW3) were identified for this SDG. The RPD for carbon tetrachloride (0%) for the first set and carbon tetrachloride (3.7%), chloroform (1.1%) and trichloroethene (9.5%) for the second set were all within the QC limit. No data qualification was necessary.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

DISSOLVED GASSES

SUMMARY

I.) General:

The analyses for Dissolved Gases were performed according to Method RSK-175.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

There were no detections reported in the associated equipment blank for this SDG. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW5. All criteria were met. No data qualification was necessary.

VII.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 48MW3 / 48TW3) were identified for this SDG. There were no calculable Relative Percent Differences. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

All LLCCV and CRDL criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

Potassium (286 ug/L) and silver (1.87 ug/L) were reported in associated method blank 1284370. Since the associated sample result for potassium was greater than the action level and the associated silver result was reported as non-detect, no data qualification was necessary.

Calibration Blanks:

Potassium (208 ug/L, 209 ug/L, 249 ug/L) and silver (1.53 ug/L, 1.51 ug/L) were reported in associated calibration blanks for the SDG sample. Since the associated sample result for potassium was greater than the action level and the associated silver result was reported as non-detect, no data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 49IDW. The Percent Differences (%Ds) for aluminum (47%), iron (51%) and manganese (20%) exceeded the 10% QC limit. The positive results for these analytes in the SDG samples were qualified as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 49IDW. The parent sample results for aluminum, iron and manganese were greater than 4X the spike concentration, so the results for these analytes were not considered meaningful. The Percent Recoveries (%Rs) for antimony (70%, 78%), beryllium (114%) and thallium (74%) were outside the QC limits. The post spike %R for thallium (77%) was below the QC limits. The non-detect antimony result for the sample was qualified as estimated (UJ) and the positive thallium result for the sample was qualified as estimated (J). Since the %R for beryllium exceeded the QC limit and the parent sample result was non-detect, no data qualification was necessary for this analyte.

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

The 52 to 53 hours for samples 13MW3, 13MW4 and 13MW5 exceeded the 48-hour QC limit for nitrate. The positive nitrate results for these samples were qualified as estimated (J).

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There were no detections reported in the associated equipment blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 13MW5, 48MW1 and 48MW7. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 48MW3 / 48TW3) were identified for this SDG. The calculable Relative Percent Differences (RPDs) for the first set were chloride (1.6%) and sulfate (0%) and the calculable difference for nitrate was less than 2X the LOQ. The RPDs for the second set were nitrate (0%) and sulfate (8.2%) and the calculable difference for chloride was less than 2X the LOQ. All criteria were met. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

The sulfate and or chloride results for 13MW5, 13MW4, 13MW3, 48MW6, 48MW3, 48TW3 and 50MW2 were reported from dilution analyses. Since only one sulfate result was reported for each sample, no data qualification was necessary.

TOTAL ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no detection reported in the associated equipment blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 13MW5 and 50MW2. All criteria were met.

No data qualification was necessary.

VI.) Field Duplicates:

Two sets of field duplicate samples (48MW04 / 49TW04 and 48MW3 / 48TW3) were identified for this SDG. There were no calculable RPD or differences, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 49IDW. The Percent Recoveries (%Rs) at 122% and 124% exceeded the QC limits. The positive result for the sample was qualified as estimated (J).

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 49IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

CT Laboratories LLC – 175012 - Organics & Inorganics

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

All LLCCV and CRDL criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections reported in the associated method blanks. No data qualification was necessary.

Calibration Blanks:

Copper (-5.6 ug/L) and silver (1.10 ug/L, 1.18 ug/L) were reported in associated calibration blanks for the SDG sample. Since the absolute value of the blank result for copper was less than the LOD, the non-detect copper result for the sample was qualified as estimated (UJ). The sample result for silver was non-detect, so no data qualification was necessary for this analyte.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 54IDW. The Percent Differences (%Ds) for calcium (37%) and magnesium (37%) exceeded the 10% QC limit. The positive results for these analytes in the SDG samples were qualified as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54IDW. The Percent Recoveries (%Rs) for cobalt (88%) and mercury (46%, 46%) were below the QC limits. All post spike criteria were met. The non-detect cobalt and mercury results for the sample were qualified as estimated (UJ).

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54MW13. The parent sample result for sulfate was greater than 4X the spike concentration, so the sulfate results were not considered meaningful. All other criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were chloride (1.5%), nitrate (1.8%) and sulfate (5.6%), which were all within the QC limit. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

The sulfate result for sample 54MW10 was reported from a dilution analysis. Since only one sulfate result was reported for the sample, no data qualification was necessary.

TOTAL INORGANIC AND TOTAL ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Inorganic Carbon (TIC) and Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54MW12. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable RPD of 1.1% for TIC was within the QC limit. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54IDW. The Percent Recovery (%R) at 111% for the MSD sample exceeded the QC limits. Since the parent sample result was non-detect, no data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 54IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHLORATE / CHLORITE

SUMMARY

I.) General:

The analyses for Chlorate / Chlorite were performed according to EPA Method 300.0.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Rinsate Blank:

There was no associated equipment rinsate blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 54MW10 and 54MW12. The %Rs for chlorate (86%) for 54MW12 and chlorite (85%, 86%) for 54MW10 were below the QC limits. The non-detect results for these analytes in the parent samples were qualified as estimated (UJ).

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

SGS Orlando, FL – FC2128 - Organics

EXPLOSIVES

SUMMARY

I.) General:

The analyses for Explosives were performed according to SW 846 Method 8330.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW13. The Percent Recoveries (%Rs) for m-nitrotoluene (129%, 125%) exceeded the QC limits. Data qualification based on MS / MSD data alone was not required. No data qualification was necessary.

VII.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

HMX	3.3%
RDX	3.2%
3,5-dinitroaniline	5.0%
2-amino-4,6-dinitrotoluene	6.1%
4-amino-2,6-dinitrotoluene	8.7%
1,3,5-trinitrobenzene	1.7%
2,4,6-trinitrotoluene	0%

All criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

The Column Relative Percent Difference (RPD) exceeded the 40% QC limit for the following compounds:

Sample	Compound	RPD
54MW13	3,5-dinitroaniline	125.4%

54TW13	3,5-dinitroaniline	122.3%

The positive compound results for the listed samples above were qualified as estimated (J).

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

PERCHLORATE

SUMMARY

I.) General:

The analyses for Perchlorate were performed according to SW-846 Method 6350.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS/ MSD analyses data were submitted for this fraction of the SDG. One %R exceeded the QC limits. Data qualification based on batch QC results was not required. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable Relative Percent Difference (RPD) at 4.1% was within the QC limit. No data qualification was necessary.

VII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

SGS Orlando, FL – FC2200 - Organics

EXPLOSIVES

SUMMARY

I.) General:

The analyses for Explosives were performed according to SW 846 Method 8330.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW12. All criteria were met. No data qualification was necessary.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VIII.) TCL Compound Identification:

The Column Relative Percent Difference (RPD) exceeded the 40% QC limit for the following compound:

Sample	Compound	RPD
54MW12	3,5-dinitroaniline	83.3%

The positive compound results for the listed sample above was qualified as estimated (J).

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

PERCHLORATE

SUMMARY

I.) General:

The analyses for Perchlorate were performed according to SW-846 Method 6350.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification

was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using SDG sample 54MW12. The Percent Recovery (%R) at 135% for the MSD sample exceeded the QC limits. Data qualification based on MS / MSD criteria alone was not required. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

Appendix A
Qualified Form Is

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 10:01	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

Matrix: GROUND WATER | SDG No.: 175065

Sample wt/vol: (g/mL) | CTL Sample ID: 1283675

% Solids: | Date Received: 01/26/2023

Soil Extract Vol: (mL) | Date/Time Prepared: /

Analytical Method: EPA 8260C | Analytical Prep Batch #:

Analytical Run #: 268886 | Dilution Factor: 1

Date & Time Analyzed: 02/01/2023 / 14:43 | GPC (3640A) Cleanup Date/Time: /

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. | Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/9/23 Type text here

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283675
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 08:56	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49

Matrix: GROUND WATER | SDG No.: 175065

Sample wt/vol: (g/mL) | CTL Sample ID: 1283672

% Solids: | Date Received: 01/26/2023

Soil Extract Vol: (mL) | Date/Time Prepared: /

Analytical Method: EPA 8260C | Analytical Prep Batch #:

Analytical Run #: 268886 | Dilution Factor: 1

Date & Time Analyzed: 02/01/2023 / 13:14 | GPC (3640A) Cleanup Date/Time: /

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. | Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	5.4		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0 ~~0.57~~	~~J~~ U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/9/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283672
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.88	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 08:46	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.63	J	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283671
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.91	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 08:29	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283670
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 12:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 09:58	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/9/23 Type text here

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284317
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	0.47	J	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1-EQB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.65		0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.2	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	0.88	J	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284318
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23 Type text here

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	1.00		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: GROUND WATER | SDG No.: 175065

Sample wt/vol: (g/mL) | CTL Sample ID: 1284320

% Solids: | Date Received: 01/28/2023

Soil Extract Vol: (mL) | Date/Time Prepared: /

Analytical Method: EPA 8260C | Analytical Prep Batch #:

Analytical Run #: 268887 | Dilution Factor: 1

Date & Time Analyzed: 02/01/2023 / 18:11 | GPC (3640A) Cleanup Date/Time: /

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. | Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	14		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	2.8		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284320
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.71	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:17	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	53		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	8.7		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284321
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 18:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	10		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 09:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:13	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.6		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:13	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	3.6		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284316
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 16:13	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.8		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 09:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
74-84-0	Ethane	0.51	J	T	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	T	0.59	1.2	1.4	1.4
74-82-8	Methane	0.93	J	T	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U T	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U T	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U T	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U T	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U T	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U T	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U T	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U T	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U T	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U T	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U T	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U T	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U T	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U T	34	50	100	100
78-93-3	2-Butanone	10	U T	2.9	10	11	11
591-78-6	2-Hexanone	10	U T	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U T	3.7	10	12	12
67-64-1	Acetone	10	U T	4.1	10	20	20
71-43-2	Benzene	1.0	U T	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U T	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U T	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U T	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U T	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U T	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U T	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U T	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U T	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U T	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U T	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U T	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U T	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U T	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U T	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U T	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U T	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U TZ UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U T	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U T	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U T	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U T	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U TZ UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U T	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U T	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U T	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284315
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:42	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U T	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U T	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U T	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U T	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U T	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U TZ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U T	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:48	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48TW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48TW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	55		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	8.8		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48TW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284322
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:11	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	11		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:19	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	2.6		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284323
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 19:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW03**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 10:06	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	4.5		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW03**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284319
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 17:43	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 09:02	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.4		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283673
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 13:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 10:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW05**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283676
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 15:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	23.2 (g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	23.2 (mL)	Date/Time Prepared:	01/31/2023 / 07:05
Analytical Method:	RSK 175	Analytical Prep Batch #:	128475
Analytical Run #:	268888	Dilution Factor:	1
Date & Time Analyzed:	01/31/2023 / 09:51	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.4		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283674
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 14:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	22.6 (g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	22.6 (mL)	Date/Time Prepared:	01/31/2023 / 07:15
Analytical Method:	RSK 175	Analytical Prep Batch #:	128476
Analytical Run #:	268889	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:23	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG012323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	1.1		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 20:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 20:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.3		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284324
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 20:10	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.83	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283669
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:16	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283669
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:16	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1283669
% Solids:		Date Received:	01/26/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268886	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:16	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/9/23 Type text here

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **TB-2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284314
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284314
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U Z UJ	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U Z UJ	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	175065
Sample wt/vol:	(g/mL)	CTL Sample ID:	1284314
% Solids:		Date Received:	01/28/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	268887	Dilution Factor:	1
Date & Time Analyzed:	02/01/2023 / 11:44	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W010323. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U Z UJ	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 7470A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268967	Analysis Date/Time:	02/02/2023 10:40
Analytical Prep Batch #:	128485	Prep. Date/Time:	01/31/2023 14:30

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 6010C	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268912	Analysis Date/Time:	01/31/2023 17:14
Analytical Prep Batch #:	128482	Prep. Date/Time:	01/30/2023 10:30

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	17400	J	29	60	120	120
7440-36-0	Total Antimony	10	U UJ	4.4	10	20	20
7440-38-2	Total Arsenic	8.8	J	7.7	20	40	40
7440-39-3	Total Barium	198		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	138000		17	50	100	100
7440-47-3	Total Chromium	26.1		1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	12.3		0.55	2.5	5.0	5.0
7440-50-8	Total Copper	32.0	J	5.2	20	40	40
7439-89-6	Total Iron	23100	M J	11	40	80	80
7439-92-1	Total Lead	29.5		1.4	2.0	4.0	4.6
7439-95-4	Total Magnesium	80200		10	25	40	40
7439-96-5	Total Manganese	826	M J	1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	21.7		1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	6060		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	20400		200	500	700	700
7440-28-0	Total Thallium	8.9	J M J	6.8	20	40	40
7440-62-2	Total Vanadium	27.5		1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	82.2		4.5	10	20	20

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283675
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 14:01
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.31	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	43		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283675
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283672
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 15:22
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.1 J	H	0.12	0.20	0.40	0.40

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283672
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 16:35
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283672
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 19:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	110		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283671
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/27/2023 09:33
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	69		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283671
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 15:01
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.5		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.19	J H J	0.12	0.20	0.40	0.40

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283671
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 16:17
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283670
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 14:41
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.79	H J	0.12	0.20	0.40	0.40

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283670
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 14:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283670
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 17:43
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	150		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284317
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 14:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.0		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.7		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	53		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284317
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 20:30
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284318
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 15:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	U	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	1.5	U	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284318
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 20:50
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284320
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 15:45
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.6	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.74		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	5.6		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284320
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 21:25
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284321
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 16:05
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.6	J	1.0	1.5	3.0	3.2
14808-79-8	Sulfate	35		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284321
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 19:27
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14797-55-8	Nitrate Nitrogen	6.3		0.60	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284321
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 21:36
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283980
Analytical Method:	EPA 9056A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268868	Analysis Date/Time:	01/27/2023 13:26
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	11		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.0		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283980
Analytical Method:	EPA 9056A	Date Received:	01/27/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268868	Analysis Date/Time:	01/27/2023 13:46
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283980
Analytical Method:	EPA 9060A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 20:19
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.65	J	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283979
Analytical Method:	EPA 9056A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268868	Analysis Date/Time:	01/27/2023 13:05
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.3	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.94		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.0		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283979
Analytical Method:	EPA 9060A	Date Received:	01/27/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 20:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284322
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 16:25
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.6	J	1.0	1.5	3.0	3.2
14808-79-8	Sulfate	38		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284322
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 19:47
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14797-55-8	Nitrate Nitrogen	6.3		0.60	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48TW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284322
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 22:28
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 410.4	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	269036	Analysis Date/Time:	02/07/2023 13:41
Analytical Prep Batch #:	128538	Prep. Date/Time:	02/04/2023 08:40

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers			DL	LOD	LOQ	RL
COD	COD	74	J	M	J	18	50	75	75

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284325
Analytical Method:	EPA 9040C	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268915	Analysis Date/Time:	01/30/2023 15:10
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.62		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284323
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 16:45
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.8		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.33	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	1.9	J	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284323
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 22:46
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284319
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 15:24
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.5		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	11		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284319
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 21:08
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283673
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 13:20
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.38	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	64		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283673
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 16:52
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283676
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 14:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	44		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283676
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:34
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283674
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268838	Analysis Date/Time:	01/26/2023 13:41
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.39	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	64		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SMWU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1283674
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:03
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284324
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 17:05
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.9		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284324
Analytical Method:	EPA 9056A	Date Received:	01/28/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268885	Analysis Date/Time:	01/28/2023 20:28
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	80		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	175065
% Solids:		Lab Sample ID:	1284324
Analytical Method:	EPA 9060A	Date Received:	01/28/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268893	Analysis Date/Time:	01/30/2023 22:57
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54 IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283774
Analytical Method:	EPA 7470A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268967	Analysis Date/Time:	02/02/2023 10:37
Analytical Prep Batch #:	128485	Prep. Date/Time:	01/31/2023 14:30

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	M UJ	0.020	0.080	0.12	0.12

ALH 9/19/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54 IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283774
Analytical Method:	EPA 6010C	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268847	Analysis Date/Time:	01/27/2023 16:43
Analytical Prep Batch #:	128465	Prep. Date/Time:	01/26/2023 13:10

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	461		29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	55.4		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	51900	J	17	50	100	100
7440-47-3	Total Chromium	3.1	J	1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.5	U UJ	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	20	U UJ	5.2	20	40	40
7439-89-6	Total Iron	484		11	40	80	80
7439-92-1	Total Lead	2.0	U	1.4	2.0	4.0	4.6
7439-95-4	Total Magnesium	24300	J	10	25	40	40
7439-96-5	Total Manganese	19.0		1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	1500		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	19400		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	3.0	U	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	7.8	J	4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/19/23

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283774
Analytical Method:	EPA 410.4	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	269035	Analysis Date/Time:	02/07/2023 13:36
Analytical Prep Batch #:	128537	Prep. Date/Time:	02/04/2023 08:39

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	50	U M	18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283774
Analytical Method:	EPA 9040C	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268842	Analysis Date/Time:	01/26/2023 15:30
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.76		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283773
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268835	Analysis Date/Time:	01/27/2023 10:34
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	62		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283773
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 19:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283773
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268844	Analysis Date/Time:	01/26/2023 21:46
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	30		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282990
Analytical Method:	EPA 9060A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268835	Analysis Date/Time:	01/27/2023 10:03
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	78		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282990
Analytical Method:	EPA 9060A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 14:27
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282990
Analytical Method:	EPA 9056A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268741	Analysis Date/Time:	01/24/2023 15:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.2		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282990
Analytical Method:	EPA 9056A	Date Received:	01/24/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268741	Analysis Date/Time:	01/24/2023 15:22
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	190		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283772
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268835	Analysis Date/Time:	01/27/2023 10:18
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	82		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283772
Analytical Method:	EPA 9060A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 17:52
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1283772
Analytical Method:	EPA 9056A	Date Received:	01/26/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268844	Analysis Date/Time:	01/26/2023 19:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.7		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.68		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	30		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282988
Analytical Method:	EPA 9060A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268835	Analysis Date/Time:	01/27/2023 09:34
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	88		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282988
Analytical Method:	EPA 9060A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 13:54
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282988
Analytical Method:	EPA 9056A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268741	Analysis Date/Time:	01/24/2023 14:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.7		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.57		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	35	M	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282989
Analytical Method:	EPA 9060A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268835	Analysis Date/Time:	01/27/2023 09:49
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	87		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282989
Analytical Method:	EPA 9060A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268891	Analysis Date/Time:	01/30/2023 14:09
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	175012
% Solids:		Lab Sample ID:	1282989
Analytical Method:	EPA 9056A	Date Received:	01/24/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	268741	Analysis Date/Time:	01/24/2023 14:41
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.8		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.56		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	37		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

Client Sample Results

Client: CT Laboratories
Job ID: 810-51679-1
Project/Site: 1282988-90 / Chlorite, Chlorate

Client Sample ID: 54MW13
Lab Sample ID: 810-51679-1
Date Collected: 01/23/23 13:10
Matrix: Drinking Water
Date Received: 01/27/23 08:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<7.9		10	7.9	ug/L			01/30/23 22:09	1
Chlorite	**7.4**	**J**	10	5.9	ug/L			01/30/23 22:09	1

Client Sample ID: 54TW13
Lab Sample ID: 810-51679-2
Date Collected: 01/23/23 13:10
Matrix: Drinking Water
Date Received: 01/27/23 08:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<7.9		10	7.9	ug/L			01/30/23 22:39	1
Chlorite	<5.9		10	5.9	ug/L			01/30/23 22:39	1

Client Sample ID: 54MW10
Lab Sample ID: 810-51679-3
Date Collected: 01/23/23 15:20
Matrix: Drinking Water
Date Received: 01/27/23 08:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier		LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<7.9			10	7.9	ug/L			01/31/23 00:09	1
Chlorite	<5.9	F1	UJ	10	5.9	ug/L			01/31/23 00:09	1

ALH 9/19/23

Client Sample Results

Client: CT Laboratories
Job ID: 810-51680-1
Project/Site: 1283772-73 Chlorite, Chlorate

Client Sample ID: 54MW12
Lab Sample ID: 810-51680-1
Date Collected: 01/25/23 09:15
Matrix: Drinking Water
Date Received: 01/27/23 08:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier		RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10	F1	UJ	10		ug/L			01/27/23 21:59	1
Chlorate	<10			10		ug/L			01/27/23 21:59	1

Client Sample ID: 54MW1
Lab Sample ID: 810-51680-2
Date Collected: 01/25/23 11:15
Matrix: Drinking Water
Date Received: 01/27/23 08:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			01/27/23 23:24	1
Chlorate	<10		10		ug/L			01/27/23 23:24	1

ALH 9/19/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW13
Lab Sample ID: FC2128-1
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 01/23/23
Date Received: 01/24/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q100172.D	1	02/06/23 20:42	AL	02/06/23 15:17	OP95334	SQ2133
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.24	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW13
Lab Sample ID: FC2128-1
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 01/23/23
Date Received: 01/24/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB075414.D	1	01/26/23 13:44	FS	01/25/23 08:30	OP95139	GBB2299
Run #2 [b]	GG625707.D	1	01/30/23 17:22	FS	01/25/23 08:30	OP95139	GGG3229

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2	1000 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	3.1	0.20	0.10	0.080	ug/l	
121-82-4	RDX	0.91	0.20	0.10	0.080	ug/l	
	DNX	0.10 U	0.20	0.10	0.080	ug/l	
	MNX	0.10 U	0.20	0.10	0.080	ug/l	
	TNX	0.10 U	0.20	0.10	0.080	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.39	0.20	0.10	0.080	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.10 U	0.20	0.10	0.080	ug/l	
606-20-2	2,6-Dinitrotoluene	0.10 U	0.20	0.10	0.080	ug/l	
121-14-2	2,4-Dinitrotoluene	0.10 U	0.20	0.10	0.080	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	1.7	0.20	0.10	0.080	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	1.2	0.20	0.10	0.080	ug/l	
98-95-3	Nitrobenzene	0.10 U	0.20	0.10	0.097	ug/l	
88-72-2	o-Nitrotoluene	0.10 U	0.20	0.10	0.080	ug/l	
99-08-1	m-Nitrotoluene	0.10 U	0.20	0.10	0.080	ug/l	
99-99-0	p-Nitrotoluene	0.10 U	0.20	0.10	0.080	ug/l	
479-45-8	Tetryl	0.10 U	0.20	0.10	0.080	ug/l	
99-35-4	1,3,5-Trinitrobenzene	11.8	0.20	0.10	0.099	ug/l	
118-96-7	2,4,6-Trinitrotoluene	5.0	0.20	0.10	0.080	ug/l	
55-63-0	Nitroglycerine	1.0 U	2.0	1.0	0.50	ug/l	
78-11-5	PETN	1.0 U	2.0	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	99%	99%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ALH 9/9/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54TW13
Lab Sample ID: FC2128-2
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 01/23/23
Date Received: 01/24/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q100173.D	1	02/06/23 20:51	AL	02/06/23 15:17	OP95334	SQ2133
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.25	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54TW13		
Lab Sample ID:	FC2128-2	**Date Sampled:**	01/23/23
Matrix:	AQ - Ground Water	**Date Received:**	01/24/23
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB075431.D	1	01/27/23 11:05	FS	01/25/23 08:30	OP95139	GBB2300
Run #2 [b]	GG625708.D	1	01/30/23 17:54	FS	01/25/23 08:30	OP95139	GGG3229

	Initial Volume	Final Volume
Run #1	1030 ml	10.0 ml
Run #2	1030 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	3.0	0.19	0.097	0.078	ug/l	
121-82-4	RDX	0.94	0.19	0.097	0.078	ug/l	
	DNX	0.097 U	0.19	0.097	0.078	ug/l	
	MNX	0.097 U	0.19	0.097	0.078	ug/l	
	TNX	0.097 U	0.19	0.097	0.078	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.41	0.19	0.097	0.078	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.097 U	0.19	0.097	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	1.6	0.19	0.097	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	1.1	0.19	0.097	0.078	ug/l	
98-95-3	Nitrobenzene	0.097 U	0.19	0.097	0.094	ug/l	
88-72-2	o-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
479-45-8	Tetryl	0.097 U	0.19	0.097	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	12.0	0.19	0.097	0.096	ug/l	
118-96-7	2,4,6-Trinitrotoluene	5.0	0.19	0.097	0.078	ug/l	
55-63-0	Nitroglycerine	0.97 U	1.9	0.97	0.49	ug/l	
78-11-5	PETN	0.97 U	1.9	0.97	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	100%	101%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 9/19/23

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW10		
Lab Sample ID:	FC2128-3	**Date Sampled:**	01/23/23
Matrix:	AQ - Ground Water	**Date Received:**	01/24/23
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q100174.D	1	02/06/23 20:59	AL	02/06/23 15:17	OP95334	SQ2133
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.10 U	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW10
Lab Sample ID: FC2128-3
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 01/23/23
Date Received: 01/24/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB075432.D	1	01/27/23 11:36	FS	01/25/23 08:30	OP95139	GBB2300
Run #2 [b]	GG625709.D	1	01/30/23 18:25	FS	01/25/23 08:30	OP95139	GGG3229

	Initial Volume	Final Volume
Run #1	1020 ml	10.0 ml
Run #2	1020 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	0.50	0.20	0.098	0.078	ug/l	
121-82-4	RDX	0.35	0.20	0.098	0.078	ug/l	
	DNX	0.098 U	0.20	0.098	0.078	ug/l	
	MNX	0.098 U	0.20	0.098	0.078	ug/l	
	TNX	0.098 U	0.20	0.098	0.078	ug/l	
618-87-1	3,5-Dinitroaniline	0.23	0.20	0.098	0.078	ug/l	
99-65-0	1,3-Dinitrobenzene	0.098 U	0.20	0.098	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	0.26	0.20	0.098	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	0.37	0.20	0.098	0.078	ug/l	
98-95-3	Nitrobenzene	0.098 U	0.20	0.098	0.095	ug/l	
88-72-2	o-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
479-45-8	Tetryl	0.098 U	0.20	0.098	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	0.098 U	0.20	0.098	0.097	ug/l	
118-96-7	2,4,6-Trinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
55-63-0	Nitroglycerine	0.98 U	2.0	0.98	0.49	ug/l	
78-11-5	PETN	0.98 U	2.0	0.98	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	83%	89%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW12		
Lab Sample ID:	FC2200-1	**Date Sampled:**	01/25/23
Matrix:	AQ - Ground Water	**Date Received:**	01/26/23
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q100175.D	1	02/06/23 21:08	AL	02/06/23 15:17	OP95334	SQ2133
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.72	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW12		
Lab Sample ID:	FC2200-1	**Date Sampled:**	01/25/23
Matrix:	AQ - Ground Water	**Date Received:**	01/26/23
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB075443.D	1	01/30/23 14:05	FS	01/27/23 12:30	OP95195	GBB2301
Run #2 [b]	GG625720.D	1	01/31/23 00:11	FS	01/27/23 12:30	OP95195	GGG3229

	Initial Volume	Final Volume
Run #1	1030 ml	10.0 ml
Run #2	1030 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	7.3	0.19	0.097	0.078	ug/l	
121-82-4	RDX	0.75	0.19	0.097	0.078	ug/l	
	DNX	0.097 U	0.19	0.097	0.078	ug/l	
	MNX	0.097 U	0.19	0.097	0.078	ug/l	
	TNX	0.097 U	0.19	0.097	0.078	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.35	0.19	0.097	0.078	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.097 U	0.19	0.097	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	2.6	0.19	0.097	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	2.0	0.19	0.097	0.078	ug/l	
98-95-3	Nitrobenzene	0.097 U	0.19	0.097	0.094	ug/l	
88-72-2	o-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
479-45-8	Tetryl	0.097 U	0.19	0.097	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	7.7	0.19	0.097	0.096	ug/l	
118-96-7	2,4,6-Trinitrotoluene	4.5	0.19	0.097	0.078	ug/l	
55-63-0	Nitroglycerine	0.97 U	1.9	0.97	0.49	ug/l	
78-11-5	PETN	0.97 U	1.9	0.97	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	94%	90%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 9/19/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW1
Lab Sample ID: FC2200-2
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 01/25/23
Date Received: 01/26/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q100178.D	1	02/06/23 21:33	AL	02/06/23 15:17	OP95334	SQ2133
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.10 U	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW1
Lab Sample ID: FC2200-2
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 01/25/23
Date Received: 01/26/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB075447.D	1	01/30/23 16:46	FS	01/27/23 12:30	OP95195	GBB2301
Run #2 [a]	GG625721.D	1	01/31/23 00:43	FS	01/27/23 12:30	OP95195	GGG3229

	Initial Volume	Final Volume
Run #1	1030 ml	10.0 ml
Run #2	1030 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	0.097 U	0.19	0.097	0.078	ug/l	
121-82-4	RDX	0.097 U	0.19	0.097	0.078	ug/l	
	DNX	0.097 U	0.19	0.097	0.078	ug/l	
	MNX	0.097 U	0.19	0.097	0.078	ug/l	
	TNX	0.097 U	0.19	0.097	0.078	ug/l	
618-87-1	3,5-Dinitroaniline	0.097 U	0.19	0.097	0.078	ug/l	
99-65-0	1,3-Dinitrobenzene	0.097 U	0.19	0.097	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
98-95-3	Nitrobenzene	0.097 U	0.19	0.097	0.094	ug/l	
88-72-2	o-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
479-45-8	Tetryl	0.097 U	0.19	0.097	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	0.097 U	0.19	0.097	0.096	ug/l	
118-96-7	2,4,6-Trinitrotoluene	0.097 U	0.19	0.097	0.078	ug/l	
55-63-0	Nitroglycerine	0.97 U	1.9	0.97	0.49	ug/l	
78-11-5	PETN	0.97 U	1.9	0.97	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	92%	87%	70-136%

(a) Confirmation run.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

VALIDATA
Chemical Services, Inc.
(770) 232-0130
(770) 232-5082 (Fax)
2159 Wynnton Pointe, Duluth, GA 30097
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	Weston Solutions, Inc.
SITE NAME:	Radford Army Ammunitions Plant – July 2023 Sampling
CONTRACTED LAB:	CT Laboratories LLC, Eurofins South Bend, SGS Orlando
QA/QC LEVEL:	EPA Stage 2B and 4
EPA SOW/METHODS:	EPA and SW-846 Methods
VALIDATION GUIDELINES:	*Radford Army Ammunitions Plant, Radford Virginia, SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan, SWMU 54 Interim Measures Work Plan, QSM 5.1, SW 846 Methods, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 2017; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2017
SAMPLE MATRIX:	Water
TYPE OF ANALYSIS:	Volatile Organics (VOA), Dissolved Gases, Perchlorate, Explosives, Total Metals, Total Mercury, Anions, Total Organic Carbon (TOC), Total Inorganic Carbon (TIC), Chlorate*, Chemical Oxygen Demand (COD), pH
SDG NUMBER:	178914
SAMPLING DATES:	July 11-14, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
49TB-1	1346820	Water	X	
13MW4	1346821	Water	X	X
13MW3	1346822	Water	X	X
49MW04	1346823	Water	X	X
49TW04	1346824	Water	X	X
13MW2	1346825	Water	X	X
49TB-2	1347301	Water	X	

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
48MW6	1347302	Water	X	X
49MW01	1347303	Water	X	X
49TW01	1347304	Water	X	X
49MW01-EQB	1347305	Water	X	X
49TB-3	1347757	Water	X	
48MW1	1347758	Water	X	X
50MW2	1347759	Water	X	X
49TB-4	1348130	Water	X	
48MW2	1348146	Water	X	X
48MW3	1348147	Water	X	X
49MW02	1348148	Water	X	X
13MW4MS	1346821MS	Water	X	X
13MW4MSD	1346821MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
49IDW	1348149	Water	X	X
49IDWMS	1348149MS	Water	X	
49IDWMSD	1348149MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	Anions	TOC
13MW4	1346821	Water	X	X
13MW3	1346822	Water	X	X
13MW3DL	1346822DL	Water	X	
49MW04	1346823	Water	X	X
49TW04	1346824	Water	X	X
13MW2	1346825	Water	X	X
48MW6	1347302	Water	X	X
48MW6DL	1347302DL	Water	X	
49MW01	1347303	Water	X	X
49TW01	1347304	Water	X	X
49MW01-EQB	1347305	Water	X	X
48MW1	1347758	Water	X	X
50MW2	1347759	Water	X	X
48MW2	1348146	Water	X	X
48MW3	1348147	Water	X	X
49MW02	1348148	Water	X	X
13MW4MS	1346821MS	Water	X	X

Client Sample #	Lab Sample #	Matrix	Anions	TOC
13MW4MSD	1346821MSD	Water	X	X
48MW6MS	1347302MS	Water	X	
48MW6MSD	1347302MSD	Water	X	
50MW2MS	1347759MS	Water	X	
50MS2MSD	1347759MSD	Water	X	
48MW2MS	1348146MS	Water	X	X
48MW2MSD	1348146MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	COD	pH
49IDW	1348149	Water	X	X
49IDWMD	1348149MD	Water		X

SDG NUMBER: 178887
SAMPLING DATES: July 10-11, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
54IDW	1346384	Water	X	X
54IDWMS	1346384MS	Water	X	X
54IDWMSD	1346384MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	Anions	TIC/ TOC
54MW13	1346379	Water	X	X
54TW13	1346380	Water	X	X
54MW10	1346381	Water	X	X
54MW10DL	1346381DL	Water	X	
54MW12	1346382	Water	X	X
54MW1	1346383	Water	X	X
54MW12MS	1346382MS	Water	X	X
54MW12MSD	1346382MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	COD	pH
54IDW	1346384	Water	X	X
54IDWMD	1346384MD	Water		X
54IDWMS	1346384MS	Water	X	
54IDWMSD	1346384MSD	Water	X	

SDG NUMBER: FC7686
SAMPLING DATES: July 10, 2023

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Explosives	Perchlorate
54MW13	FC7686-1	Water	X	X
54TW13	FC7686-2	Water	X	X
54MW10	FC7686-3	Water	X	X
54MW12	FC7686-4	Water	X	X
54MW1	FC7686-5	Water	X	X
54MW12MS	FC7686-4MS	Water	X	X
54MW12MSD	FC7686-4MSD	Water	X	X

**- analysis was for 22 analytes by Method 6010C.

All fractions were validated at Stage 4, except Metals and Mercury, which were validated at Stage 2B.

Suffix Codes: DL = DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RA = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Sandra Nacquin

DATA VALIDATION SUMMARY

CT Laboratories LLC – 178914 - Organics & Inorganics

VOLATILE ORGANICS (VOA)

SUMMARY

I.) General:

The analyses for Volatile Organics (VOA) were performed according to SW 846 Method 8260B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

It was noted in the VOC sample preparation that the pH for samples 49MW01 and 49TW01 were greater than the QC limit of 2. The 8 days between sample collection and analysis for both samples exceeded the 7-day QC limit for improperly preserved samples. The results for both samples were qualified as estimated (J) and (UJ).

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

The average RRF for 1,4-dioxane (0.003) for the standards analyzed on 7/18/23 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a

known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

All other Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

The RRF for 1,4-dioxane (0.0033) for the standards run on 7/18/23 at 15:51 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

Continuing Calibration:

The RRF for 1,4-dioxane (0.0033) for the standards run on 7/21/23 at 14:17 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The Percent Difference (%D) for the standards run on 7/21/23 at 14:17 on instrument VMS3 was -25.5% for dichlorodifluoromethane, which exceeded the 20% QC limit. The results for this compound in the SDG samples, which were all non-detect, were qualified as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

The following compounds were reported in associated equipment blank 49MW01-EQB:

Acetone	4.9 ug/L
Ethylbenzene	1.1 ug/L
M,p-xylene	2.1 ug/L
o-xylene	1.9 ug/L

Since the blank results were less than the LOD, the positive o-xylene result for sample 48MW1 and the positive ethylbenzene and m,p-xylene for 49TW01, which were less than the LOD, were qualified as undetected (U) with the result raised to the LOD.

Trip Blanks:

There were no detections in the associated trip blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW4. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 49MW01 / 49TW01) were identified for this SDG. The calculable differences for carbon tetrachloride for the first set and 1,2-dichlorobenzene for the second set were less than 2X the LOD. No data qualification was necessary.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

DISSOLVED GASSES

SUMMARY

I.) General:

The analyses for Dissolved Gases were performed according to Method RSK-175.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

It was noted in the VOC sample preparation that the pH for samples 49MW01 and 49TW01 were greater than the QC limit of 2. The 8 days between sample collection and analysis for both samples exceeded the 7-day QC limit for improperly preserved samples. The results for both samples were qualified as estimated (J) and (UJ).

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

There were no detections reported in the associated equipment blank for this SDG. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW4. All criteria were met. No data qualification was necessary.

VII.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 48MW3 / 48TW3) were identified for this SDG. There were no calculable Relative Percent Differences. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

All LLCCV and CRDL criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

Silver (1.13 ug/L) were reported in associated method blank 1349319. Since the associated silver result was reported as non-detect, no data qualification was necessary.

Calibration Blanks:

Potassium (261 ug/L) was reported in the associated initial calibration blank for the SDG sample. Since the associated sample result for potassium was greater than the action level and the associated silver result was reported as non-detect, no data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 49IDW. The Percent Differences (%Ds) for aluminum (16%), calcium (11%), iron (13%) and manganese (12%) exceeded the 10% QC limit. The positive results for these analytes in the SDG samples were qualified as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 49IDW. The parent sample results for aluminum, calcium and iron were greater than 4X the spike concentration, so the results for these analytes were not considered meaningful. The Percent Recoveries (%Rs) for lead (85%), manganese (68%, 62%), thallium (76%), vanadium (79%) and zinc (81%) were outside the QC limits. The post spike %Rs for lead (54%), manganese (75%), thallium (57%), vanadium (62%) and zinc (56%) were the QC limits. The positive and non-detect results for these analytes in the parent sample were qualified as estimated (J) and (UJ).

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

The 72 to 74 hours for samples 48MW2, 48MW3 and 49MW02 exceeded the 48-hour QC limit for nitrate. The positive nitrate results for these samples were qualified as estimated (J).

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There were no detections reported in the associated equipment blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 13MW4, 48MW6, 48MW2 and 50MW2. The sulfate result for parent sample 13MW4 was greater than 4X the spike concentration, so the sulfate results for this set were not considered meaningful. The Percent Recoveries (%Rs) for sulfate in sample 48MW6MSD (82%), 48MW2 (52%, 51%) and 50MW2 (76%, 71%) were below the QC limits. The sulfate results for the parent samples were qualified as estimated (J).

VI.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 49MW01 / 49TW01) were identified for this SDG. The calculable Relative Percent Difference (RPD) for the first set was chloride (0%) and the calculable difference for nitrate and sulfate were less than 2X the LOQ. The calculable RPD for the second set was 6.2% for sulfate and the calculable differences for nitrate and chloride were less than 2X the LOQ. All criteria were met. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

The sulfate and or chloride results for 13MW3 and 48MW6 were reported from dilution analyses. Since only one sulfate result was reported for each sample, no data qualification was necessary.

TOTAL ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no detection reported in the associated equipment blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 13MW4 and 48MW2. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

Two sets of field duplicate samples (48MW04 / 49TW04 and 48MW3 / 48TW3) were identified for this SDG. The calculable difference for the first set was less than 2X the LOQ, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data was not submitted for this fraction of the SDG. Data qualification based on the absence of MS / MSD data was not required. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 49IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

CT Laboratories LLC – 178887 - Organics & Inorganics

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

All LLCCV and CRDL criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections reported in the associated method blanks. No data qualification was necessary.

Calibration Blanks:

Potassium (251 ug/L, 179 ug/L) was reported in associated calibration blanks for the SDG sample. Since the potassium result for the sample was greater than the action level, no data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 54IDW. All criteria were met. No data qualification was necessary.

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54IDW. The parent sample results for aluminum and iron were greater than 4X the spike concentrations, so the results were not considered meaningful. The Percent Recovery (%R) for vanadium (89%) was below the QC limits. All post spike criteria were met. The positive vanadium result for the sample was qualified as estimated (J).

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54MW12. The Percent Recoveries (%Rs) for sulfate at 81% and 84% were below the QC limits. The positive sulfate result for the parent sample was qualified as estimated (J).

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable Relative Percent Differences (RPDs) for chloride (1.6%) and sulfate (3.3%) and the calculable difference for nitrate at less than 2X the LOQ were within the QC limit. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

The sulfate result for sample 54MW10 was reported from a dilution analysis. Since only one sulfate result was reported for the sample, no data qualification was necessary.

TOTAL INORGANIC AND TOTAL ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Inorganic Carbon (TIC) and Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was

necessary.

Equipment Blank:

There was no associated equipment blank submitted for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54MW12. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable RPD of 0% for TIC was within the QC limit. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Blank:

There was no associated equipment blank submitted for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 54IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

SGS Orlando, FL – FC7686 - Organics

EXPLOSIVES

SUMMARY

I.) General:

The analyses for Explosives were performed according to SW 846 Method 8330.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW12. All criteria were met. No data qualification was necessary.

VII.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

HMX	3.4%
RDX	1.1%
3,5-dinitroaniline	3.5%
2-amino-4,6-dinitrotoluene	7.4%
4-amino-2,6-dinitrotoluene	15%
1,3,5-trinitrobenzene	5.4%
2,4,6-trinitrotoluene	3.4%

All criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

The Column Relative Percent Difference (RPD) exceeded the 40% QC limit for the following compounds:

Sample	Compound	RPD
54MW13	3,5-dinitroaniline	98.2%
	2-amino-4,6-dinitrotoluene	140%

	4-amino-2,6-dinitrotoluene	90.5%
54TW13	3,5-dinitroaniline	101%
	2-amino-4,6-dinitrotoluene	140%
	4-amino-2,6-dinitrotoluene	102%
54MW10	HMX	81.3%
	2-amino-4,6-dinitrotoluene	178%
	4-amino-2,6-dinitrotoluene	46.2%
54MW12	3,5-dinitroaniline	147%
	2-amino-4,6-dinitrotoluene	50.0%
	4-amino-2,6-dinitrotoluene	93.3%

The positive compound results for the listed samples above were qualified as estimated (J).

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

PERCHLORATE

SUMMARY

I.) General:

The analyses for Perchlorate were performed according to SW-846 Method 6350.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW12. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW13 / 54TW13) was identified for this SDG. The calculable Relative Percent Difference (RPD) at 9.5% was within the QC limit. No data qualification was necessary.

VII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

Appendix A
Qualified Form Is

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:17	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:18	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:18	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346825
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:18	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:05	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	5.2		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.54	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346822
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.89	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 09:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:27	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:27	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346821
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:27	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.95	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:41	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	0.50	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	9.4		0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.60	J	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.4		0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.6		0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0 ~~1.4~~	~~J~~ U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis.

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347758
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.41	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:58	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.65	J	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:04	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:04	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	19		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	3.2		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348146
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:04	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.2		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 11:02	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	76		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	9.9		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348147
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	13		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **48MW6**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:45	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	3.0		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:45	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	5.9		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347302
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 20:45	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	2.9		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:25	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	T UJ	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	T	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	T	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers			DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	T	UJ	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	T		0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	T		0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	T		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	T		0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	T		0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	T		0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	T		0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	T		0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	0.49	J	T	J	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	T	UJ	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	T		0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	T		0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	T		34	50	100	100
78-93-3	2-Butanone	10	U	T		2.9	10	11	11
591-78-6	2-Hexanone	10	U	T		3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	T		3.7	10	12	12
67-64-1	Acetone	10	U	T		4.1	10	20	20
71-43-2	Benzene	1.0	U	T		0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	T		0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	T		0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	T		0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 7/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	T UJ	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	T	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.38	J	T	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	T	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	T	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	T	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	T	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	T	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	T	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	T	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	T	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	TZ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	T	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	T	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	T	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	T	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	T	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	T	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	T	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	T	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	T	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	T	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347303
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:12	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U T UJ	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U T	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U T	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U T	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U T	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U T	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U T	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW01-EQB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	4.9	J	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.1	J	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.1	J	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	1.9	J	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347305
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:03	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 11:07	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW02**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:59	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:59	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348148
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 23:59	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:09	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.70	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49MW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346823
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:21	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TB-1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346820
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346820
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346820
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:08	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TB-2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347301
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347301
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347301
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 16:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TB-3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347757
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347757
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347757
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 17:31	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TB-4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348130
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:00	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348130
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:00	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TB-4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1348130
% Solids:		Date Received:	07/15/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 18:00	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:32	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers			DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	T	UJ	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	T		0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	T		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers			DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	T	UJ	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	T		0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	T		0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	T		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	T		0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	T		0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	T		0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	T		0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	T		0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	0.37	J	T	J	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	T	UJ	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	T		0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	T		0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	T		34	50	100	100
78-93-3	2-Butanone	10	U	T		2.9	10	11	11
591-78-6	2-Hexanone	10	U	T		3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	T		3.7	10	12	12
67-64-1	Acetone	10	U	T		4.1	10	20	20
71-43-2	Benzene	1.0	U	T		0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	T		0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	T		0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	T		0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW01**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U T UJ	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U T	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U T	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U T	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U T	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U T	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U T	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U T	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U T	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U T	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U T	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U TZ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0 ~~0.44~~	~~J~~ T UJ	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U T	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U T	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0 ~~0.98~~	~~J~~ T UJ	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U T	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U T	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U T	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U T	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U T	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U T	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347304
% Solids:		Date Received:	07/13/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 21:40	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers			DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	T	UJ	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	T		0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	T		0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	T		0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	T		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	T		0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	T		0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:14	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **49TW04**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.77	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1346824
% Solids:		Date Received:	07/12/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 19:50	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	07/20/2023 / 08:11
Analytical Method:	RSK 175	Analytical Prep Batch #:	130621
Analytical Run #:	273815	Dilution Factor:	1
Date & Time Analyzed:	07/20/2023 / 10:54	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG071323 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.1	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U Z UJ	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	178914
Sample wt/vol:	(g/mL)	CTL Sample ID:	1347759
% Solids:		Date Received:	07/14/2023
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #:	
Analytical Run #:	273706	Dilution Factor:	1
Date & Time Analyzed:	07/21/2023 / 22:36	GPC (3640A) Cleanup Date/Time:	/

Additional Cleanups Date/Time: , ,

TCLP (1311) / SPLP (1312) / MLP (1320) or ASTM D3987-85 Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W071823. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.3		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 7470A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273833	Analysis Date/Time:	07/21/2023 10:58
Analytical Prep Batch #:	130488	Prep. Date/Time:	07/18/2023 13:20

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 6010C	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273760	Analysis Date/Time:	07/19/2023 13:38
Analytical Prep Batch #:	130560	Prep. Date/Time:	07/18/2023 12:12

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	3340	J	15	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	141		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.75	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	95200	J	25	50	100	100
7440-47-3	Total Chromium	9.3		1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	3.9	J	1.0	2.5	5.0	5.0
7440-50-8	Total Copper	11.4	J	5.2	20	40	40
7439-89-6	Total Iron	6570	J	14	40	80	80
7439-92-1	Total Lead	5.7	J M J	1.4	5.0	10	10
7439-95-4	Total Magnesium	46600		10	25	40	40
7439-96-5	Total Manganese	573	M J	1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	7.2		1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	2980		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	26200		200	500	700	700
7440-28-0	Total Thallium	20	U M UJ	6.8	20	40	40
7440-62-2	Total Vanadium	7.1	M J	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	31.5	M J	4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346825
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:24
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346825
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 23:52
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.32	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	41		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346822
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/13/2023 09:10
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	99		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346822
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 17:50
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346822
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 22:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.0		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.7		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346821
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 17:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346821
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 22:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.32	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	57	M	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347758
Analytical Method:	EPA 9060A	Date Received:	07/14/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 12:17
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347758
Analytical Method:	EPA 9056A	Date Received:	07/14/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273661	Analysis Date/Time:	07/14/2023 20:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.7		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	1.6		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	50		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348146
Analytical Method:	EPA 9056A	Date Received:	07/15/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273708	Analysis Date/Time:	07/17/2023 10:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.76	H J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	7.3	Y,M J	0.80	1.5	3.0	3.0

ALH 9/21/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348146
Analytical Method:	EPA 9060A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 13:14
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348147
Analytical Method:	EPA 9056A	Date Received:	07/15/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273708	Analysis Date/Time:	07/17/2023 10:44
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.2	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	7.0	H J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33		0.80	1.5	3.0	3.0

ALH 9/21/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348147
Analytical Method:	EPA 9060A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 14:04
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347302
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 13:33
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	10		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.6		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347302
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:35
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.76	J	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347302
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/17/2023 20:39
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120	M J	4.0	7.5	15	15

ALH 9/21/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 410.4	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273727	Analysis Date/Time:	07/19/2023 11:20
Analytical Prep Batch #:	130553	Prep. Date/Time:	07/18/2023 08:45

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	45	J	18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348149
Analytical Method:	EPA 9040C	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273725	Analysis Date/Time:	07/17/2023 16:00
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.89		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347303
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 13:56
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.6		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.34	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	0.86	J	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347303
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 19:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.2	J	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347305
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 14:42
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	U	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	1.5	U	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01-EQB

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347305
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 19:38
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348148
Analytical Method:	EPA 9056A	Date Received:	07/15/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273708	Analysis Date/Time:	07/17/2023 11:07
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.5	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.35	J H J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	13		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1348148
Analytical Method:	EPA 9060A	Date Received:	07/15/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 14:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346823
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346823
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 23:07
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.37	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	67		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347304
Analytical Method:	EPA 9056A	Date Received:	07/13/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273619	Analysis Date/Time:	07/13/2023 14:19
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.6		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.34	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	0.86	J	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347304
Analytical Method:	EPA 9060A	Date Received:	07/13/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 19:27
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.2	J	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346824
Analytical Method:	EPA 9060A	Date Received:	07/12/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 18:13
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1346824
Analytical Method:	EPA 9056A	Date Received:	07/12/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273583	Analysis Date/Time:	07/12/2023 23:29
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.4		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.40		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	63		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347759
Analytical Method:	EPA 9060A	Date Received:	07/14/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273734	Analysis Date/Time:	07/18/2023 12:28
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **50MW2**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	178914
% Solids:		Lab Sample ID:	1347759
Analytical Method:	EPA 9056A	Date Received:	07/14/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273661	Analysis Date/Time:	07/14/2023 21:07
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.8		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	2.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	69	M J	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346384
Analytical Method:	EPA 7470A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273833	Analysis Date/Time:	07/21/2023 10:52
Analytical Prep Batch #:	130488	Prep. Date/Time:	07/18/2023 13:20

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **54IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346384
Analytical Method:	EPA 6010C	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273608	Analysis Date/Time:	07/13/2023 14:53
Analytical Prep Batch #:	130497	Prep. Date/Time:	07/12/2023 14:07

Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	739		Y	15	60	120	120
7440-36-0	Total Antimony	10	U		4.4	10	20	20
7440-38-2	Total Arsenic	20	U		7.7	20	40	40
7440-39-3	Total Barium	77.8			0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U		0.75	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U		0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	79700			25	50	100	100
7440-47-3	Total Chromium	4.0	J		1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.5	U		1.0	2.5	5.0	5.0
7440-50-8	Total Copper	20	U		5.2	20	40	40
7439-89-6	Total Iron	1990			14	40	80	80
7439-92-1	Total Lead	3.1	J		1.4	5.0	10	10
7439-95-4	Total Magnesium	33400			10	25	40	40
7439-96-5	Total Manganese	44.0			1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U		1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	1590			120	250	500	500
7782-49-2	Total Selenium	20	U		10	20	40	40
7440-22-4	Total Silver	2.5	U		1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	4630			200	500	700	700
7440-28-0	Total Thallium	20	U		6.8	20	40	40
7440-62-2	Total Vanadium	1.9	J	J	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	14.6	J		4.5	10	20	20

ALH 9/21/23

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346384
Analytical Method:	EPA 410.4	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273727	Analysis Date/Time:	07/19/2023 11:20
Analytical Prep Batch #:	130553	Prep. Date/Time:	07/18/2023 08:45

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	50	U	18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346384
Analytical Method:	EPA 9040C	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273548	Analysis Date/Time:	07/11/2023 14:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.62		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346383
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273604	Analysis Date/Time:	07/13/2023 11:15
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	66		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346383
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 16:51
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346383
Analytical Method:	EPA 9056A	Date Received:	07/11/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273539	Analysis Date/Time:	07/11/2023 20:42
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.3	J	1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	29		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346381
Analytical Method:	EPA 9056A	Date Received:	07/11/2023
Dilution Factor:	5	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273539	Analysis Date/Time:	07/15/2023 03:35
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	170		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346381
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273604	Analysis Date/Time:	07/13/2023 10:49
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	84		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346381
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 15:13
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346381
Analytical Method:	EPA 9056A	Date Received:	07/11/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273539	Analysis Date/Time:	07/11/2023 20:00
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.9		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346382
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273604	Analysis Date/Time:	07/13/2023 11:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	86		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346382
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 15:25
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346382
Analytical Method:	EPA 9056A	Date Received:	07/11/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273539	Analysis Date/Time:	07/11/2023 20:21
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.2		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.71		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	25	M J	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

ALH 9/21/23

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346379
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273604	Analysis Date/Time:	07/13/2023 10:23
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	85		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346379
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 14:50
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346379
Analytical Method:	EPA 9056A	Date Received:	07/11/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273539	Analysis Date/Time:	07/11/2023 19:19
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.56		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	31		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346380
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273604	Analysis Date/Time:	07/13/2023 10:36
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	85		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346380
Analytical Method:	EPA 9060A	Date Received:	07/11/2023
Dilution Factor:	1	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273651	Analysis Date/Time:	07/14/2023 15:02
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.4	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	178887
% Solids:		Lab Sample ID:	1346380
Analytical Method:	EPA 9056A	Date Received:	07/11/2023
Dilution Factor:	1.0000	TCLP (1311) /SPLP(1312) Extraction Date/time:	
Analytical Run #:	273539	Analysis Date/Time:	07/11/2023 19:40
Analytical Prep Batch #:		Prep. Date/Time:	

Concentration Units: mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.2		1.0	1.5	3.0	3.2
14797-55-8	Nitrate Nitrogen	0.57		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	30		0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then analytical results for solid matrices are reported on a dry weight basis

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW13		
Lab Sample ID:	FC7686-1	**Date Sampled:**	07/10/23
Matrix:	AQ - Ground Water	**Date Received:**	07/11/23
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q104111.D	1	07/20/23 12:09	AL	07/20/23 10:12	OP97971	SQ2217
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.30	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW13		
Lab Sample ID:	FC7686-1	**Date Sampled:**	07/10/23
Matrix:	AQ - Ground Water	**Date Received:**	07/11/23
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB077749.D	1	07/18/23 11:28	FS	07/17/23 09:00	OP97885	GBB2394
Run #2 [b]	GG626850.D	4	07/20/23 13:57	FS	07/17/23 09:00	OP97885	GGG3303

	Initial Volume	Final Volume
Run #1	900 ml	10.0 ml
Run #2	900 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	2.9	0.22	0.11	0.089	ug/l	
121-82-4	RDX	0.90	0.22	0.11	0.089	ug/l	
	DNX	0.11 U	0.22	0.11	0.089	ug/l	
	MNX	0.11 U	0.22	0.11	0.089	ug/l	
	TNX	0.11 U	0.22	0.11	0.089	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.58	0.22	0.11	0.089	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.11 U	0.22	0.11	0.089	ug/l	
606-20-2	2,6-Dinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
121-14-2	2,4-Dinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene [c]	1.4	0.22	0.11	0.089	ug/l	J
19406-51-0	4-amino-2,6-Dinitrotoluene [c]	0.98	0.22	0.11	0.089	ug/l	J
98-95-3	Nitrobenzene	0.11 U	0.22	0.11	0.11	ug/l	
88-72-2	o-Nitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
99-08-1	m-Nitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
99-99-0	p-Nitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
479-45-8	Tetryl	0.11 U	0.22	0.11	0.089	ug/l	
99-35-4	1,3,5-Trinitrobenzene	14.3	0.22	0.11	0.11	ug/l	
118-96-7	2,4,6-Trinitrotoluene	8.8	0.22	0.11	0.089	ug/l	
55-63-0	Nitroglycerine	1.1 U	2.2	1.1	0.56	ug/l	
78-11-5	PETN	1.1 U	2.2	1.1	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	90%	94%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 9/20/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54TW13
Lab Sample ID: FC7686-2
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 07/10/23
Date Received: 07/11/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q104112.D	1	07/20/23 12:16	AL	07/20/23 10:12	OP97971	SQ2217
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.33	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54TW13
Lab Sample ID: FC7686-2
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 07/10/23
Date Received: 07/11/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB077750.D	1	07/18/23 11:59	FS	07/17/23 09:00	OP97885	GBB2394
Run #2 [b]	GG626841.D	1	07/19/23 11:44	FS	07/17/23 09:00	OP97885	GGG3302

	Initial Volume	Final Volume
Run #1	850 ml	10.0 ml
Run #2	850 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	3.0	0.24	0.12	0.094	ug/l	
121-82-4	RDX	0.91	0.24	0.12	0.094	ug/l	
	DNX	0.12 U	0.24	0.12	0.094	ug/l	
	MNX	0.12 U	0.24	0.12	0.094	ug/l	
	TNX	0.12 U	0.24	0.12	0.094	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.56	0.24	0.12	0.094	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.12 U	0.24	0.12	0.094	ug/l	
606-20-2	2,6-Dinitrotoluene	0.12 U	0.24	0.12	0.094	ug/l	
121-14-2	2,4-Dinitrotoluene	0.12 U	0.24	0.12	0.094	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene [c]	1.3	0.24	0.12	0.094	ug/l	J
19406-51-0	4-amino-2,6-Dinitrotoluene [c]	0.84	0.24	0.12	0.094	ug/l	J
98-95-3	Nitrobenzene	0.12 U	0.24	0.12	0.11	ug/l	
88-72-2	o-Nitrotoluene	0.12 U	0.24	0.12	0.094	ug/l	
99-08-1	m-Nitrotoluene	0.12 U	0.24	0.12	0.094	ug/l	
99-99-0	p-Nitrotoluene	0.12 U	0.24	0.12	0.094	ug/l	
479-45-8	Tetryl	0.12 U	0.24	0.12	0.094	ug/l	
99-35-4	1,3,5-Trinitrobenzene	15.1	0.24	0.12	0.12	ug/l	
118-96-7	2,4,6-Trinitrotoluene	9.1	0.24	0.12	0.094	ug/l	
55-63-0	Nitroglycerine	1.2 U	2.4	1.2	0.59	ug/l	
78-11-5	PETN	1.2 U	2.4	1.2	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	93%	103%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 9/20/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW10
Lab Sample ID: FC7686-3
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 07/10/23
Date Received: 07/11/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q104113.D	1	07/20/23 12:24	AL	07/20/23 10:12	OP97971	SQ2217
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.10 U	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW10		
Lab Sample ID:	FC7686-3	**Date Sampled:**	07/10/23
Matrix:	AQ - Ground Water	**Date Received:**	07/11/23
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB077751.D	1	07/18/23 12:30	FS	07/17/23 09:00	OP97885	GBB2394
Run #2 [b]	GG626851.D	1	07/20/23 14:29	FS	07/17/23 09:00	OP97885	GGG3303

	Initial Volume	Final Volume
Run #1	970 ml	10.0 ml
Run #2	970 ml	10.0 ml

CAS No.	Compound	Result		LOQ	LOD	DL	Units	Q
2691-41-0	HMX [c]	0.45	J	0.21	0.10	0.082	ug/l	
121-82-4	RDX	0.34		0.21	0.10	0.082	ug/l	
	DNX	0.10 U		0.21	0.10	0.082	ug/l	
	MNX	0.10 U		0.21	0.10	0.082	ug/l	
	TNX	0.10 U		0.21	0.10	0.082	ug/l	
618-87-1	3,5-Dinitroaniline	0.27		0.21	0.10	0.082	ug/l	
99-65-0	1,3-Dinitrobenzene	0.10 U		0.21	0.10	0.082	ug/l	
606-20-2	2,6-Dinitrotoluene	0.10 U		0.21	0.10	0.082	ug/l	
121-14-2	2,4-Dinitrotoluene	0.10 U		0.21	0.10	0.082	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene [c]	0.29	J	0.21	0.10	0.082	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene [c]	0.25	J	0.21	0.10	0.082	ug/l	
98-95-3	Nitrobenzene	0.10 U		0.21	0.10	0.10	ug/l	
88-72-2	o-Nitrotoluene	0.10 U		0.21	0.10	0.082	ug/l	
99-08-1	m-Nitrotoluene	0.10 U		0.21	0.10	0.082	ug/l	
99-99-0	p-Nitrotoluene	0.10 U		0.21	0.10	0.082	ug/l	
479-45-8	Tetryl	0.10 U		0.21	0.10	0.082	ug/l	
99-35-4	1,3,5-Trinitrobenzene	0.16		0.21	0.10	0.10	ug/l	J
118-96-7	2,4,6-Trinitrotoluene	0.56		0.21	0.10	0.082	ug/l	
55-63-0	Nitroglycerine	1.0 U		2.1	1.0	0.52	ug/l	
78-11-5	PETN	1.0 U		2.1	1.0	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	87%	94%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 9/20/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW12
Lab Sample ID: FC7686-4
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 07/10/23
Date Received: 07/11/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q104114.D	1	07/20/23 12:31	AL	07/20/23 10:12	OP97971	SQ2217
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.61	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW12		
Lab Sample ID:	FC7686-4	**Date Sampled:**	07/10/23
Matrix:	AQ - Ground Water	**Date Received:**	07/11/23
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB077752.D	1	07/18/23 13:01	FS	07/17/23 09:00	OP97885	GBB2394
Run #2 [b]	GG626843.D	1	07/19/23 12:49	FS	07/17/23 09:00	OP97885	GGG3302

	Initial Volume	Final Volume
Run #1	970 ml	10.0 ml
Run #2	960 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	11.8	0.21	0.10	0.082	ug/l	
121-82-4	RDX	0.27	0.21	0.10	0.082	ug/l	
	DNX	0.10 U	0.21	0.10	0.082	ug/l	
	MNX	0.10 U	0.21	0.10	0.082	ug/l	
	TNX	0.10 U	0.21	0.10	0.082	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.20 J	0.21	0.10	0.082	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.10 U	0.21	0.10	0.082	ug/l	
606-20-2	2,6-Dinitrotoluene	0.10 U	0.21	0.10	0.082	ug/l	
121-14-2	2,4-Dinitrotoluene	0.10 U	0.21	0.10	0.082	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene [c]	3.0 J	0.21	0.10	0.082	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene [c]	2.0 J	0.21	0.10	0.082	ug/l	
98-95-3	Nitrobenzene	0.10 U	0.21	0.10	0.10	ug/l	
88-72-2	o-Nitrotoluene	0.10 U	0.21	0.10	0.082	ug/l	
99-08-1	m-Nitrotoluene	0.10 U	0.21	0.10	0.082	ug/l	
99-99-0	p-Nitrotoluene	0.10 U	0.21	0.10	0.082	ug/l	
479-45-8	Tetryl	0.10 U	0.21	0.10	0.082	ug/l	
99-35-4	1,3,5-Trinitrobenzene	5.3	0.21	0.10	0.10	ug/l	
118-96-7	2,4,6-Trinitrotoluene	4.0	0.21	0.10	0.082	ug/l	
55-63-0	Nitroglycerine	1.0 U	2.1	1.0	0.52	ug/l	
78-11-5	PETN	1.0 U	2.1	1.0	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	87%	95%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 9/20/23

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW1
Lab Sample ID: FC7686-5
Matrix: AQ - Ground Water
Method: SW846 6850 IN HOUSE
Project: Radford AAP; VA

Date Sampled: 07/10/23
Date Received: 07/11/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q104117.D	1	07/20/23 12:53	AL	07/20/23 10:12	OP97971	SQ2217
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.10 U	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW1
Lab Sample ID: FC7686-5
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 07/10/23
Date Received: 07/11/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB077757.D	1	07/18/23 16:25	FS	07/17/23 09:00	OP97885	GBB2394
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	0.11 U	0.22	0.11	0.089	ug/l	
121-82-4	RDX	0.11 U	0.22	0.11	0.089	ug/l	
	DNX	0.11 U	0.22	0.11	0.089	ug/l	
	MNX	0.11 U	0.22	0.11	0.089	ug/l	
	TNX	0.11 U	0.22	0.11	0.089	ug/l	
618-87-1	3,5-Dinitroaniline	0.11 U	0.22	0.11	0.089	ug/l	
99-65-0	1,3-Dinitrobenzene	0.11 U	0.22	0.11	0.089	ug/l	
606-20-2	2,6-Dinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
121-14-2	2,4-Dinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
98-95-3	Nitrobenzene	0.11 U	0.22	0.11	0.11	ug/l	
88-72-2	o-Nitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
99-08-1	m-Nitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
99-99-0	p-Nitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
479-45-8	Tetryl	0.11 U	0.22	0.11	0.089	ug/l	
99-35-4	1,3,5-Trinitrobenzene	0.11 U	0.22	0.11	0.11	ug/l	
118-96-7	2,4,6-Trinitrotoluene	0.11 U	0.22	0.11	0.089	ug/l	
55-63-0	Nitroglycerine	1.1 U	2.2	1.1	0.56	ug/l	
78-11-5	PETN	1.1 U	2.2	1.1	0.56	ug/l	

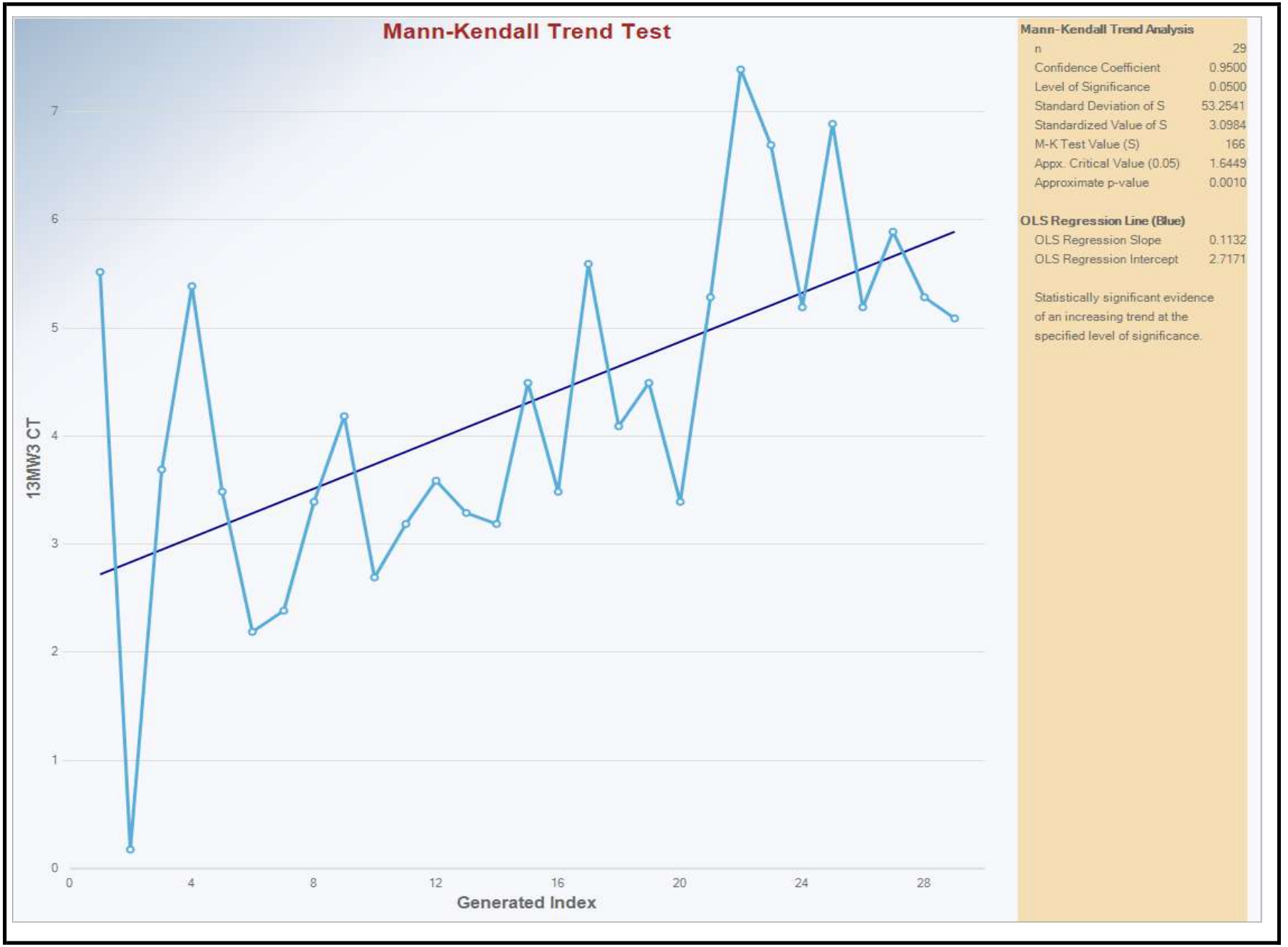
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	86%		70-136%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

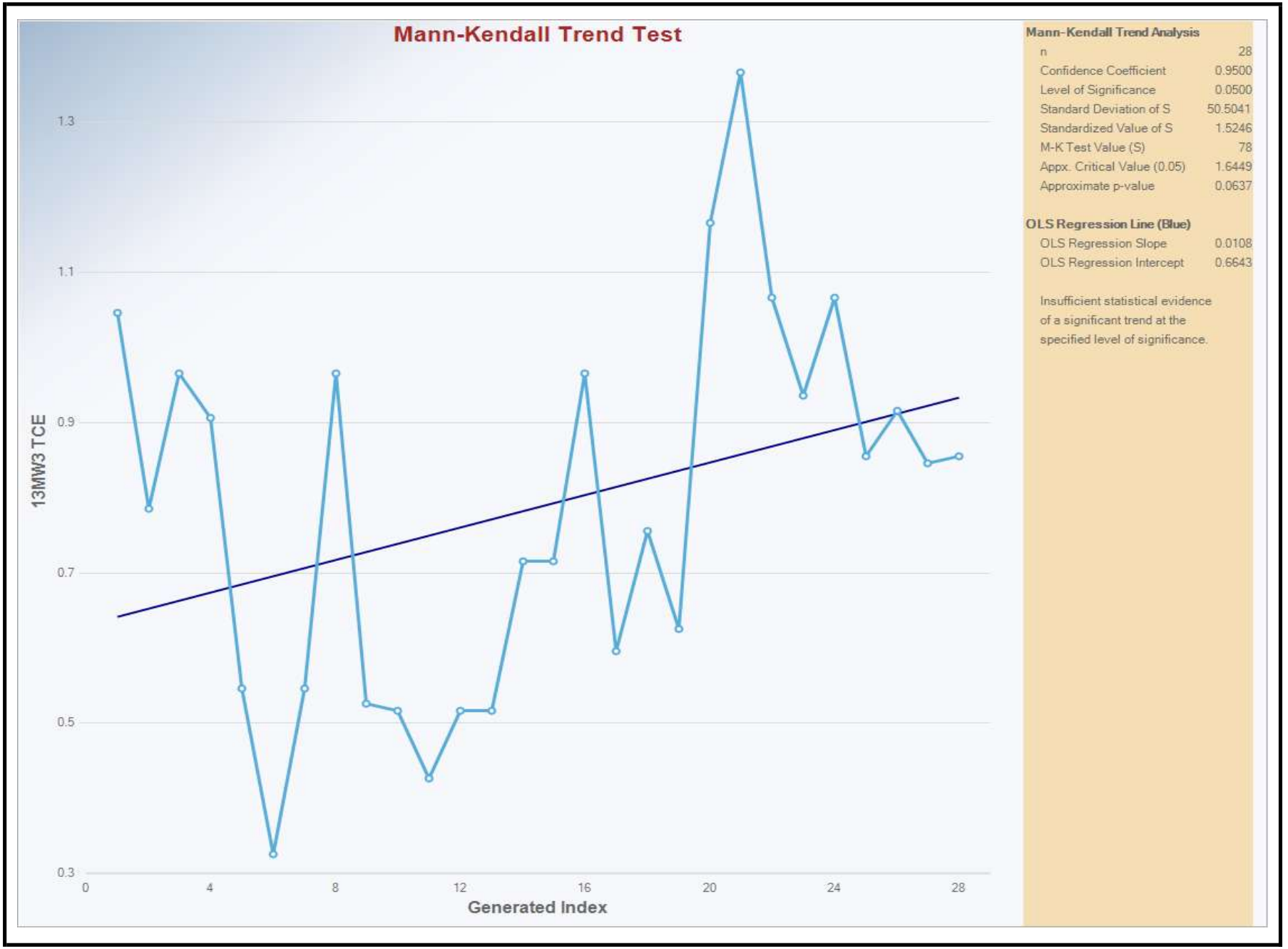
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX C
MANN-KENDALL ANALYSIS

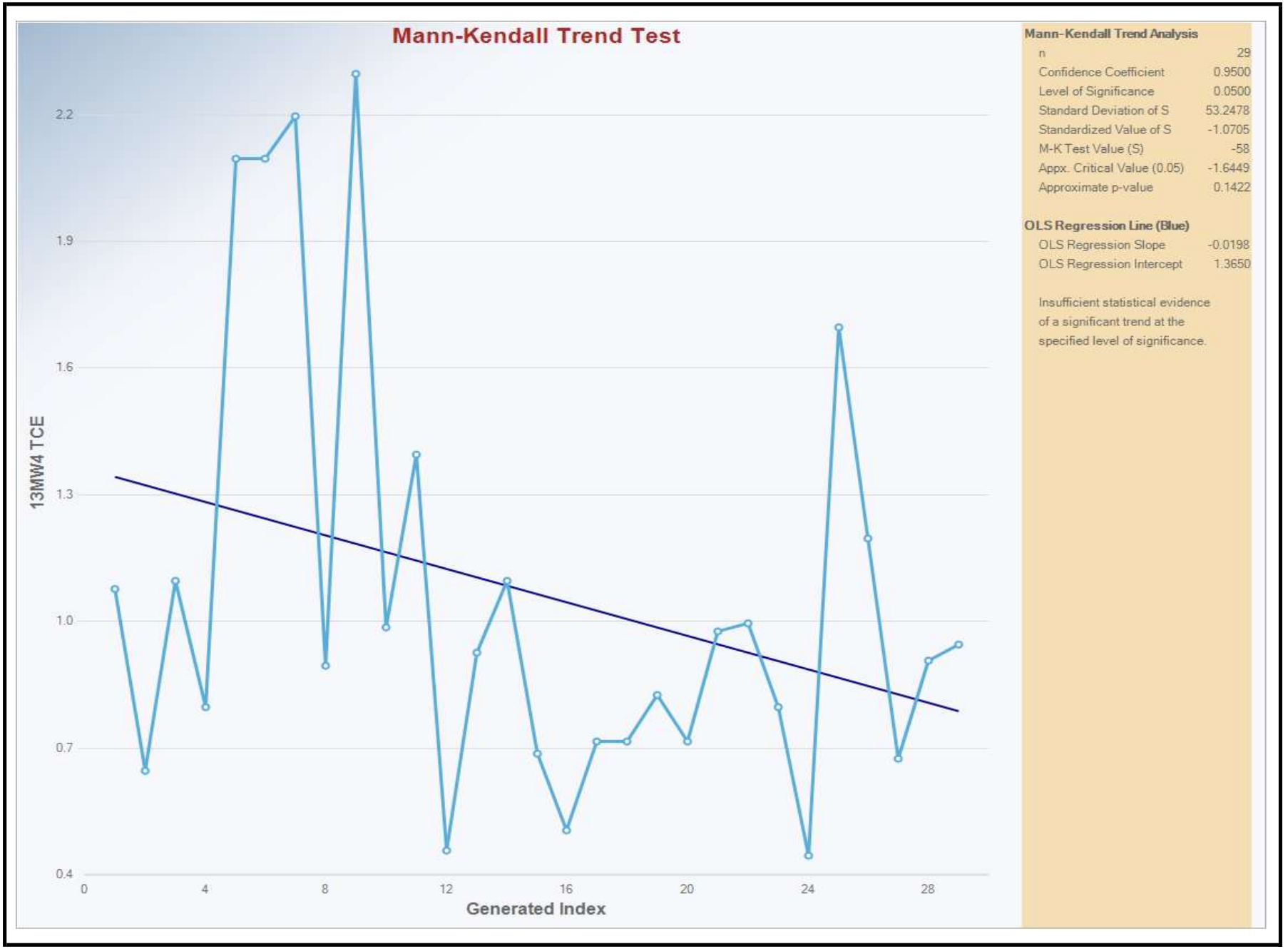
13MW3 CT Graph



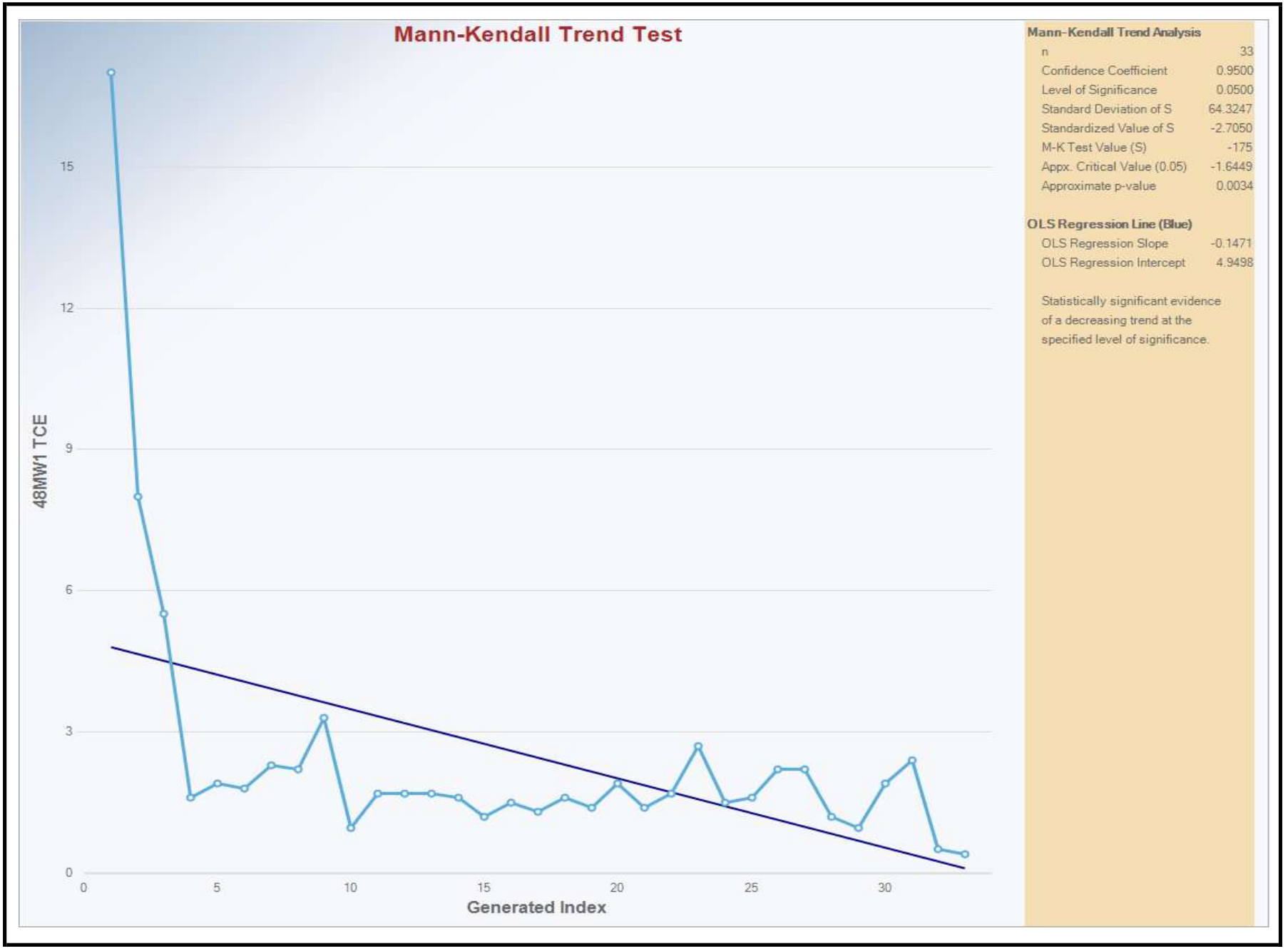
13MW3 TCE Graph



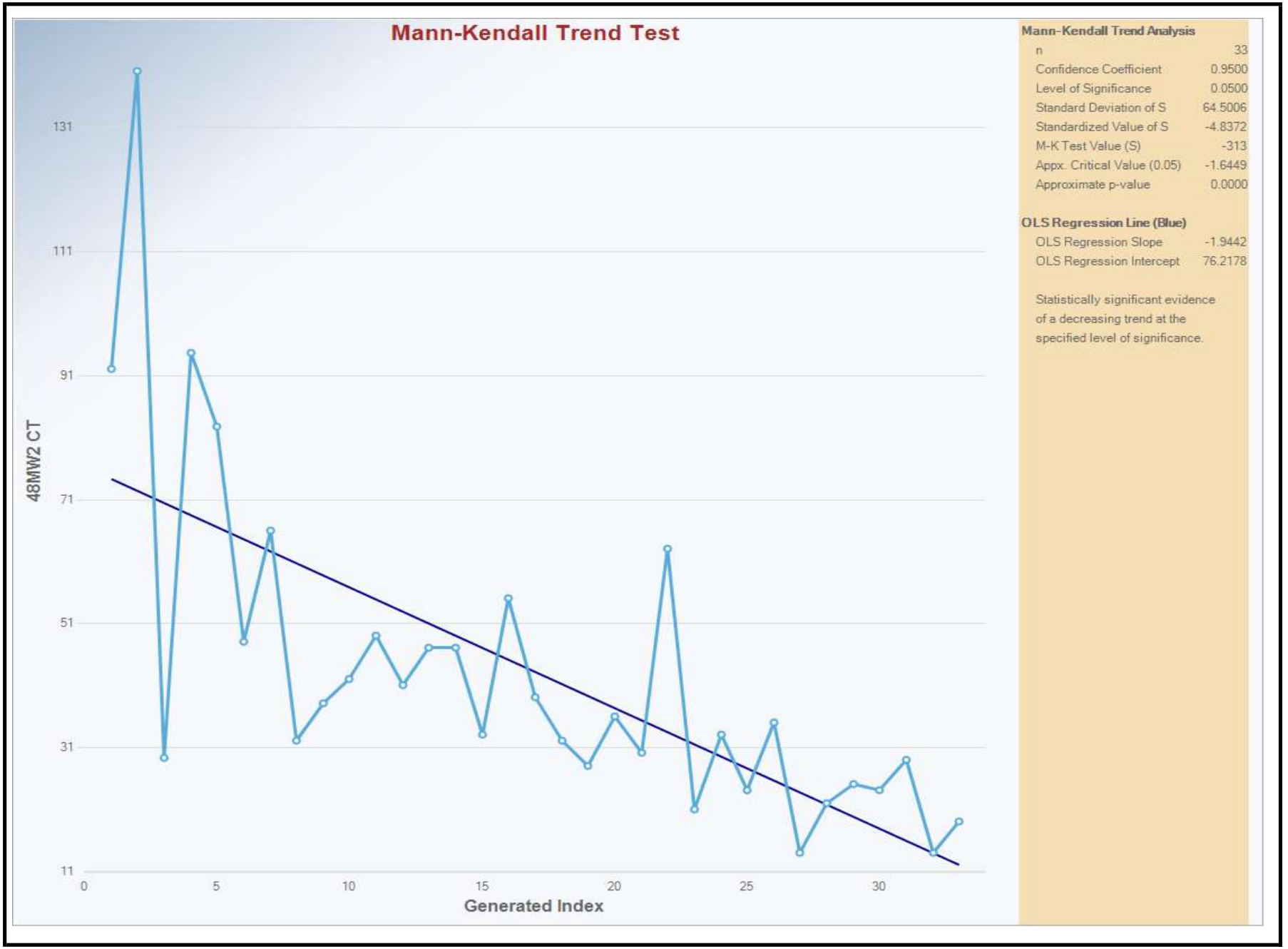
13MW4 TCE Graph



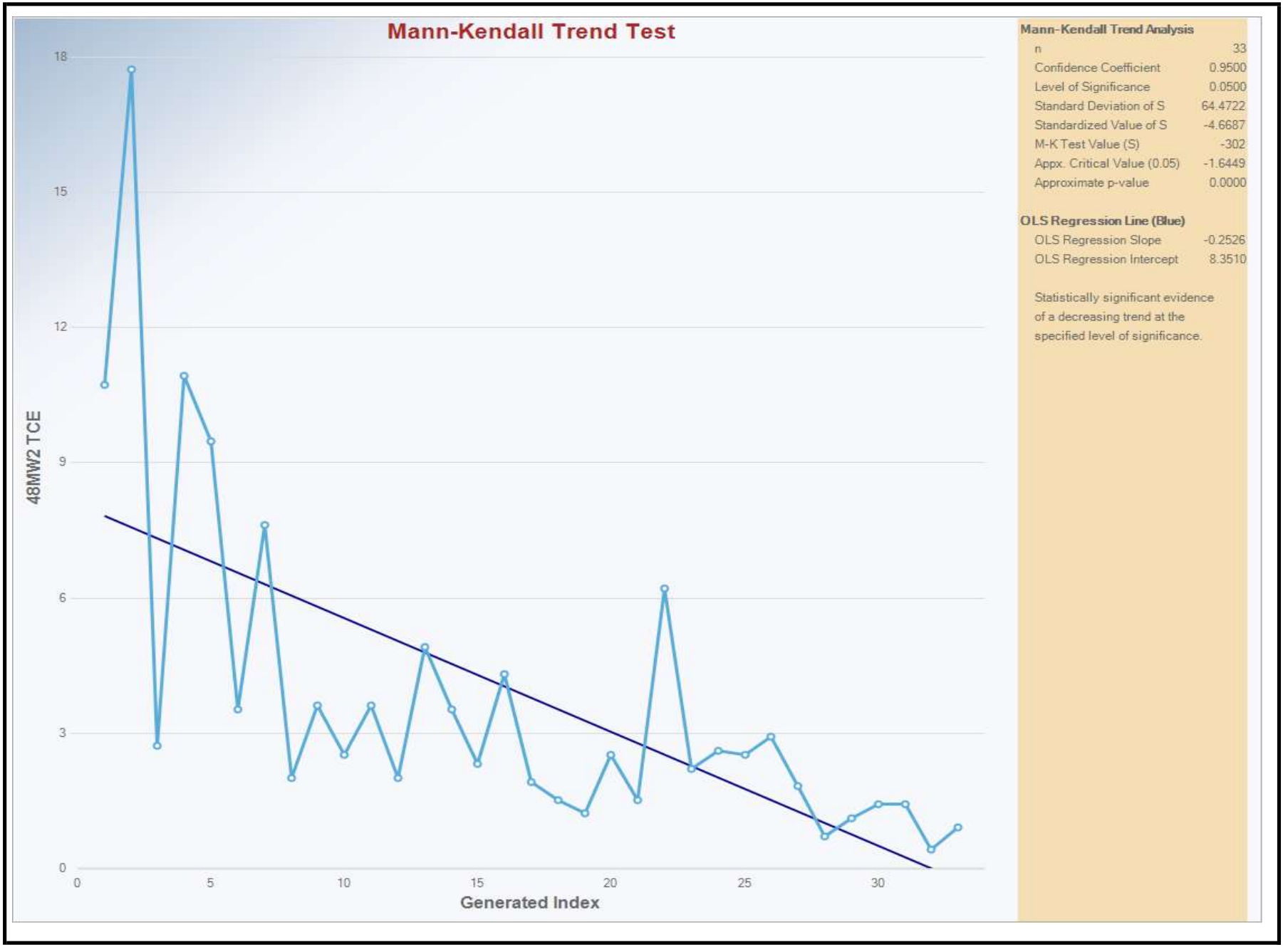
48MW1 TCE Graph



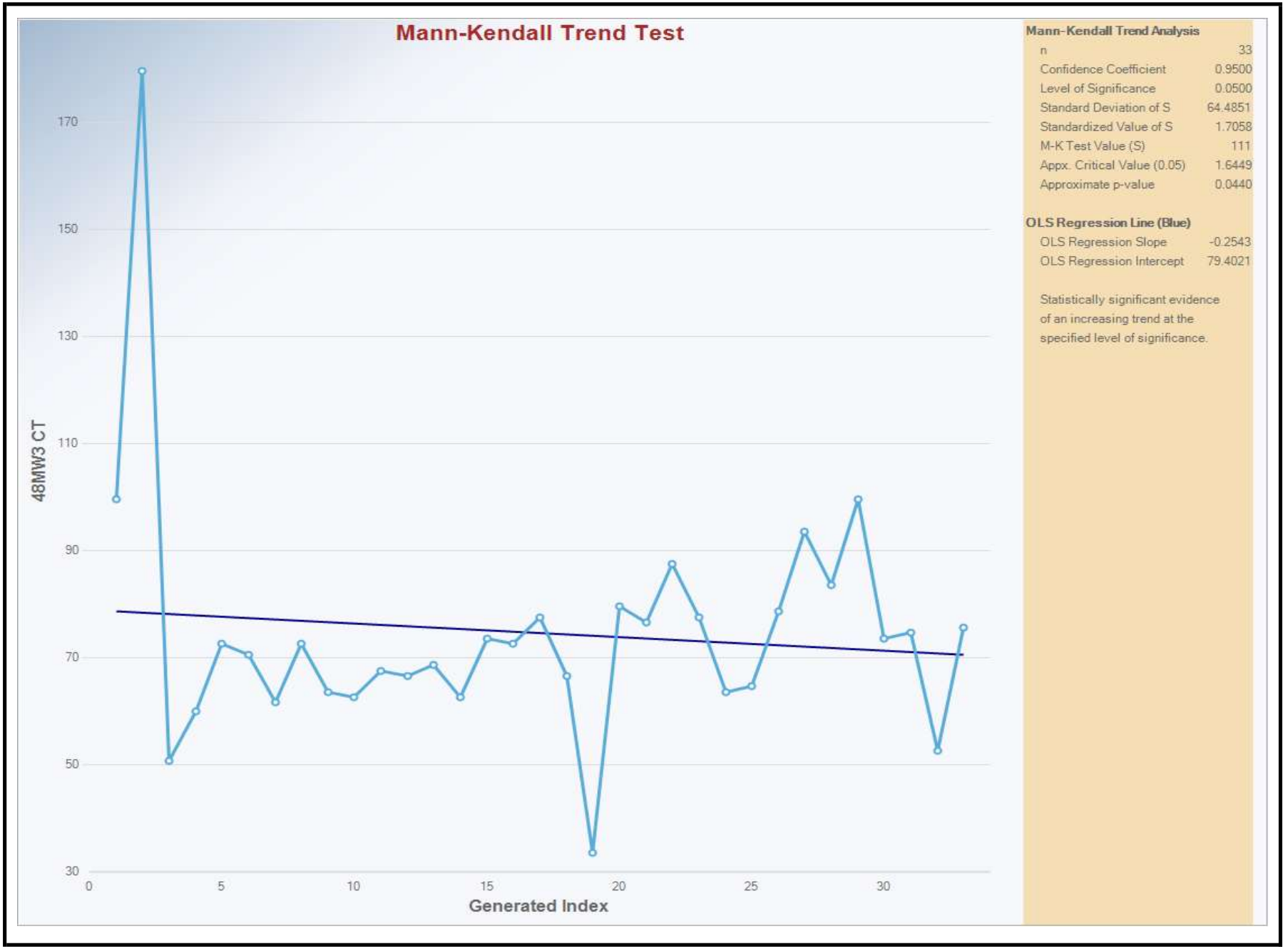
48MW2 CT Graph



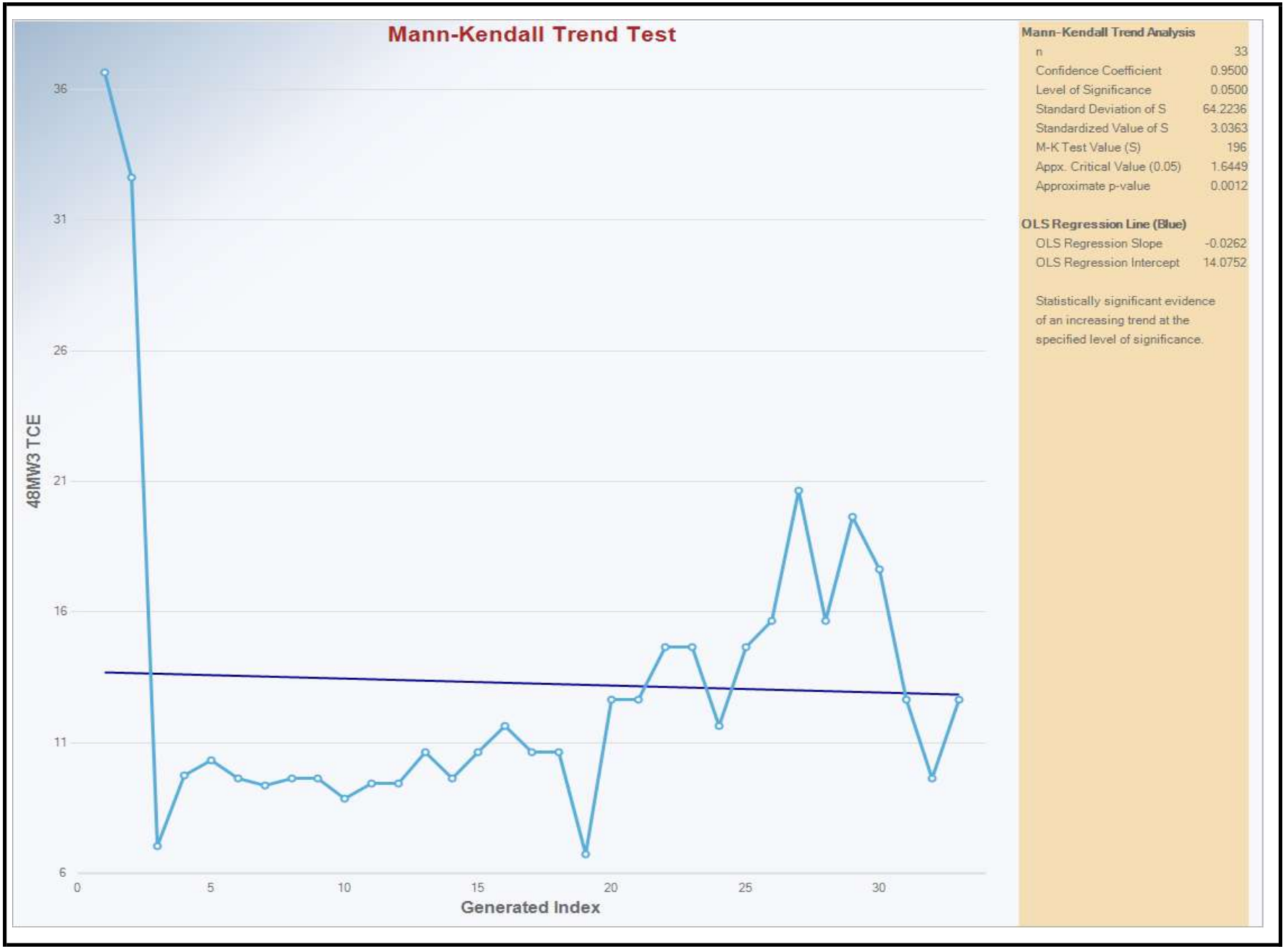
48MW2 TCE Graph



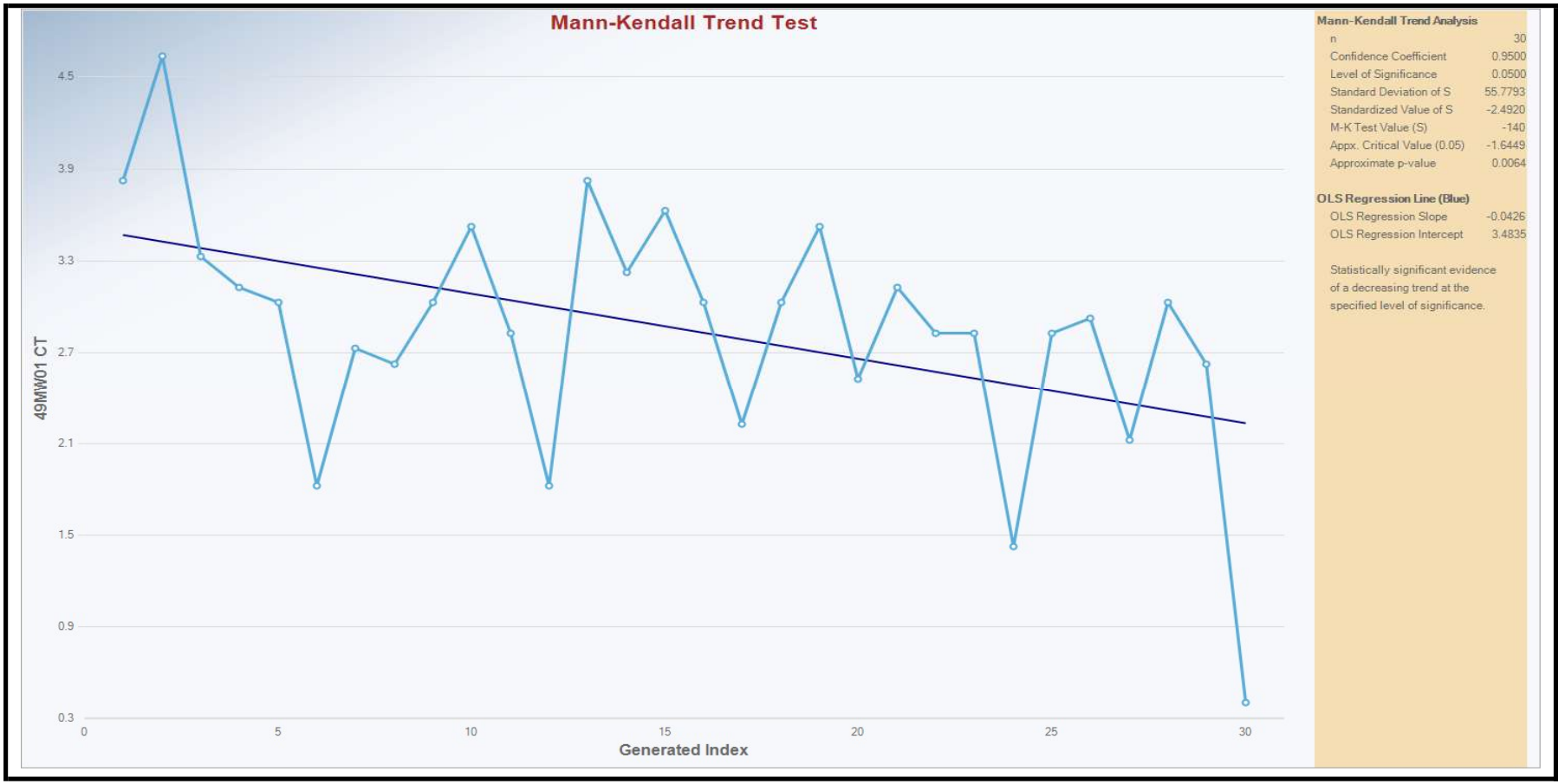
48MW3 CT Graph



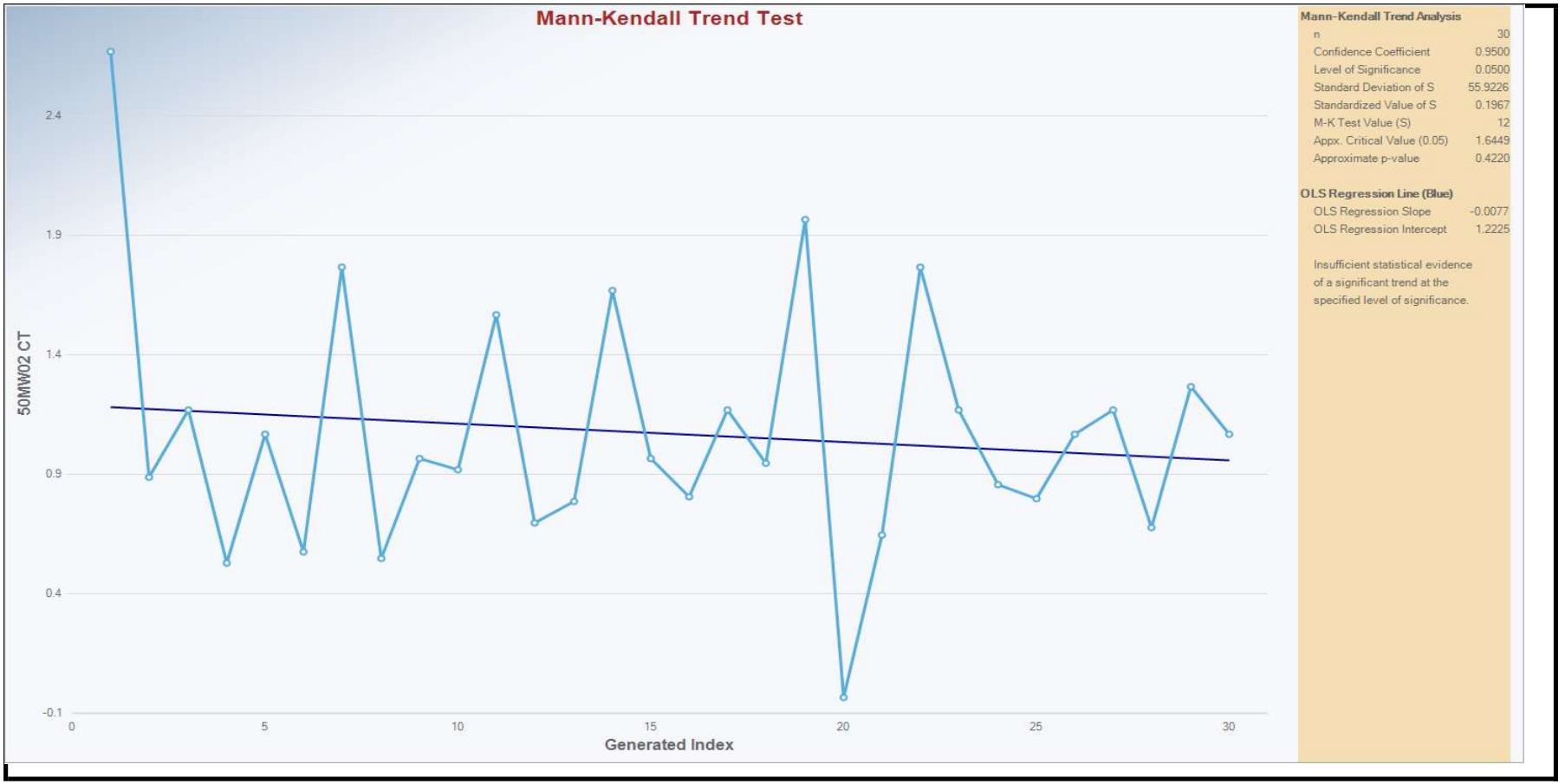
48MW3 TCE Graph



49MW1 CT Graph



50MW2 CT Graph



50MW2 TCE Graph