UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
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July 7, 2015

Commander,
Radford Army Ammunition Plant
Attn: SJMRF-OP-EQ (Jim McKenna)
P.O. Box 2
Radford, VA 24141-0099

William Barnett
Environmental Manager
BAE Systems Ordnance Systems, Inc.
Radford Army Ammunition Plant
P.O. Box 1
Radford, VA 24141-0100

VIA Electronic Mail

Re: Radford Army Ammunition Plant, Radford, Virginia
Solid Waste Management Unit 40
Landfill Nitro Area, Remedy Review

Dear Mr. McKenna and Mr. Barnett:

The U.S. Environmental Protection Agency (EPA) and Virginia Department of Environmental Quality (VDEQ) have reviewed the U.S. Army's (Army's) SWMU 40, Remedy Review. SWMU 40 is located at the Radford Army Ammunition Plant (RFAAP) in Radford, Virginia. Based upon our review, the SWMU 40 Remedy Review is approved, and in accordance with Part II. (E)(5) of RFAAP's Corrective Action Permit, the Remedy Review is considered final. If you have any questions, please call me at 410-305-2779.

Sincerely,

Erich Weissbart

Erich Weissbart, P.G.
RCRA Project Manager
Office of Remediation (3LC20)

c: James Cutler, VDEQ

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May 21, 2015

Mr. Erich Weissbart, P.G.
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1650 Arch Street
Philadelphia, PA 19103-2029

Mr. James L. Cutler, Jr.
Virginia Department of Environmental Quality
629 East Main Street
Richmond, VA 23219

Subject: **With Certification, SWMU 40 (RAAP-009) Landfill Nitro Area, Remedy Review, Draft Final, May 2015**
EPA ID# VA1210020730

Dear Mr. Weissbart and Mr. Cutler:

Enclosed is the certification for the subject documents that were sent to you on May 15, 2015. Also enclosed is the May 15, 2015 transmittal email.

Please coordinate with and provide any questions or comments to myself at 540 639 7785 or Mr. Jim McKenna, ACO Staff at 540 731 5782.

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

c: Aziz Farahmand
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bc: Administrative File
J. McKenna, ACO Staff
Rob Davie-ACO Staff
Env. File

Coordination: J. McKenna
J. McKenna

Concerning the following:

Radford Army Ammunition Plant
Solid Waste Management Unit 40(RAAP-009)
Landfill Nitro Area
Remedy Review
Draft Final, May 2015

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: _____

PRINTED NAME: Luis A. Ortiz
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
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Alberts, Matt (US SSA)

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Subject: RFAAP Draft Final SWMU 40 Remedy Review Report
Signed By: james.j.mckenna16.civ@mail.mil

All:

Note the contractor will ship the subject document with a copy of this email to the POCs and tracking numbers below. Certification will follow by separate letter.

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Thank you for your support of the Radford Army Ammunition Plant Installation Restoration Program.

Jim McKenna

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RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

Performance Based Acquisition
Solid Waste Management Unit 40 (RAAP-009)
Landfill Nitro Area
Remedy Review

DRAFT FINAL
May 2015

PREPARED BY:

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PERFORMANCE BASED ACQUISITION
REMEDY REVIEW
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LIST OF ABBREVIATIONS AND ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database-Restoration Army Environmental Database-Restoration
BAE	Brigade Aviation Element
CMO	Corrective Measures Objectives
CMS	Corrective Measures Study
COC	Contaminant of Concern
COPC	Constituent of Potential Concern
COR	Contracting Officer Representative
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DUP	Duplicate
EPA	Environmental Protection Agency
IM	Interim Measures
IMCR	Interim Measures Completion Report
IMWP	Interim Measures Work Plan
IRP	Installation Restoration Program
KEMRON	KEMRON Environmental Services
LOD	Limit of Detection
LOQ	Limits of Quantitation
LTM	Long Term Monitoring
LUC	Land Use Control
MCL	Maximum Contaminant Level
MMA	Main Manufacturing Area
NATO	North Atlantic Treaty Organization
NTP	Notice to Proceed
PBA	Performance Based Acquisition
PCB	Polychlorinated Biphenyls
QAPP	Quality Assurance Project Plan
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RFI/CMS	RCRA Facility Investigation/Corrective Measures Study
RSL	Regional Screening Level
SOP	Standard Operating Procedure
SSL	Soil Screening Level
SVOCs	Semi-Volatile Organic Carbons
SWMU	Solid Waste Management Unit
TAL	Target Analyte List
TO	Task Order
USACE	United States Army Corps Of Engineers
USAEC	US Army Environmental Command
USCS	Unified Soil Classification System
USDA	United States Department Of Agriculture
USEPA	US Environmental Protection Agency

Acronym	Definition
VDEQ	Virginia Department of Environmental Quality
VOC	Volatile Organic Compound
µg/L	Micrograms per liter

1.0 INTRODUCTION

KEMRON Remediation Services, Inc. (KEMRON) was contracted by the U.S. Army Corps of Engineers (USACE) to perform Interim Measures (IM) at the Landfill Nitro Area, Solid Waste Management Area (SWMU) 40, at Radford Army Ammunition Plant (RFAAP), Radford, Virginia. This SWMU also is identified as RAAP-009 for purposes of the Army Environmental Database – Restoration (AEDB-R).

The site is being addressed under the Installation Restoration Program (IRP). The Department of Defense (DoD) established the Defense Environmental Restoration Program (DERP) to address environmental contamination located on current and former military installations. Remedial action at this site also is authorized and conducted under the authority of the federal Resource Conservation and Recovery Act (RCRA). The SWMU 40 work is being performed under a Performance Based Acquisition Firm Fixed Price Task Order (PBA TO) for environmental remediation services at RFAAP. The contract was issued by the United States Army Corps of Engineers (USACE) – Baltimore located at 10 S. Howard Street, Box 1715, Room 7000 in Baltimore, Maryland. This TO # DA01 was issued under KEMRON's Worldwide Environmental Remediation Services contract number W912DY-10-D-0027, with an award date of 30 June 2010 and a Notice to Proceed (NTP) date of 15 July 2010.

The RAAP-009 IM was implemented as a means to accelerate closure of this site and begin long-term maintenance and monitoring (LTM). As noted in the plans for the IM, a remedy review is to be conducted within the first five years following the remedy being implemented. This remedy review is being conducted by KEMRON to determine whether the remedy as implemented via the IM is protective of human health and the environment. The remedy review is being conducted in accordance with the TO performance work statement, and is limited to the SWMU 40, RAAP-009 site at RFAAP. This is the first remedy review conducted since the completion of the RAAP-009 remedy in 2011.

The May 2012 Interim Measures Completion Report (IMCR), which included details of mobilization, installation of one additional downgradient monitoring well, repairs to the landfill cap North Slope, and implementing institutional controls (ICs), was approved as Final by US Environmental Protection Agency (USEPA) and the Virginia Department of Environmental Quality (VDEQ) in correspondence dated July 10, 2012. All work was performed in accordance with the IM Work Plan (IMWP) as approved by the USEPA and the VDEQ. In addition to the work specified in the IMWP, limited additional maintenance was conducted adjacent to SWMU 40 to further enhance and assure the stability of the landfill north slope and control stormwater runoff. Following completion of the IM, LTM was initiated in November 2011 and has been on-going since that time, including groundwater monitoring, inspection and mowing of the landfill cap, and maintenance of land use controls which limit site use to prohibit unrestricted use. This remedy review was conducted from the completion of the remedy implementation through May, 2015. The remedy review report describes the completed IM, LTM conducted to date and the findings of the LTM, documents the results of the remedy review and provides a determination regarding the remedy effectiveness for protection of human health and the environment.

1.1 Background

1.1.1 Site Description

RFAAP is a government owned; contractor operated manufacturing facility located in southwestern Virginia approximately eight (8) miles southwest of Blacksburg in Pulaski and Montgomery Counties. BAE Systems is the current operator along with a variety of other tenants. RFAAP consists of two noncontiguous areas, the Main Manufacturing Area (MMA) and the New River Unit (NRU). The RFAAP facility has manufactured explosives and propellants for the United States military and other uses since the 1940's.

SWMU 40, RAAP-009, is located within the south-central portion of the MMA at RFAAP (Figure 1). Figure 2 shows the site layout, which includes the approximate 2-acre landfill area that comprises SWMU 40.

SWMU 40 consists of an undeveloped open area covered with grass. A gravel covered and fenced area used for temporary storage of asbestos is located at the eastern edge of the site (Figure 2). A paved road, identified as Landfill South Road for purposes of this Remedy Review Report, is located immediately south of the landfill area and undeveloped land borders the landfill area to the north (field) and west (wooded area). Current photographs of SWMU 40 are included in Appendix A.

1.1.2 Site History

The RCRA Facility Assessment (RFA) was conducted by the USEPA in 1987 and identified multiple sites including SWMU 40 as having the potential to release contaminants into the environment. SWMU 40 is included in the RFAAP RCRA Permit for Corrective Action (USEPA, 2000).

The Final RFI/CMS was approved by USEPA and VDEQ in April 2009. The Final RFI/CMS (URS, April 2009) documents that SWMU 40 was used for the burial of materials, such as paper, office trash, concrete, and rubber tires in the 1970s and early 1980s. The unit was not permitted by the Commonwealth of Virginia as a solid waste landfill. Operations ceased and the unit was closed with a clay cap and grass cover. Subsequently, areas located northeast of the unit were used to stockpile soil derived from construction-related activities. In approximately 1991, a fenced enclosure was constructed in the northeastern corner of the SWMU 40 area for use as temporary asbestos accumulation area.

The results of the human health risk assessment included in the Final RFI/CMS (URS, 2009) indicated that calculated cancer risks and hazard indices are within the USEPA target risk range for each receptor evaluated with the exception of the cumulative risk for the hypothetical future lifetime resident due primarily to arsenic and PCBs in soil. A future construction worker also had potential risk based upon potential aluminum exposure via the inhalation pathway. The RFI/CMS documented that soil Constituents of Potential Concern (COPCs) were primarily limited to the landfill material itself with the exception of a surficial area of PCB contamination in soil that was located adjacent to the northern escarpment of the landfill.

Additionally, the Final RFI/CMS identified chloroform as a groundwater COPC. Extensive source characterization was conducted at SWMU 40 during the RFI, including the collection of 91 soil samples, many of which were collected from landfill material and soil below the landfill material at SWMU 40. Chloroform was not detected in these samples. The RFI/CMS notes that the lack of detections and absence of other volatile organic constituents in groundwater samples suggests a potential alternate source for chloroform in groundwater at SWMU 40. During conduct of the RFI, chloroform was detected in samples collected from wells 40MW3 (19 µg/L), 40MW5 DUP (23 ug/L), and 40MW6 (24 µg/L) at concentrations above its unadjusted tapwater risk based concentration (T-RBC) (0.155 µg/L) but below the USEPA MCL of 80 µg/L for total trihalomethanes. The Final RFI/CMS notes that the landfill area is located downgradient of developed areas containing water lines that could be leaking, and which may be the source of chloroform in groundwater at SWMU 40. Therefore, based upon the site specific data, a SWMU 40 chloroform source is not identifiable. However, based upon the groundwater detections of chloroform, chloroform was retained as a COPC until the completion of the first four quarters of data collected during the LTM.

Perchlorate has historically been detected in numerous wells at RFAAP at low concentrations. The RFI/CMS noted that updated laboratory analytical detection limits that are lower than historic limits may be the reason for low level detections. The RFI/CMS also noted that groundwater samples located

immediately adjacent to and downgradient of the landfill (40MW3, 40MW5, and 40MW6) were below the unadjusted T-RBC; therefore, perchlorate was not identified as a COPC in groundwater. However, the Army agreed to retain perchlorate as a groundwater monitoring analyte for the LTM program at the time of CMS preparation, based on detections reported in the RFI/CMS.

The RAAP-009, SWMU 40 Final RFI/CMS was reviewed and approved by USEPA and VDEQ in correspondence dated June 30, 2009. The USEPA and VDEQ agreed to the use of IMs as a means to accelerate closure of this site and begin long-term maintenance and monitoring.

The selected Corrective Measure Alternative for SWMU 40, presented in Section 10 of the RFI/CMS, was Alternative 2: Institutional Controls, Engineering Controls, and Long-Term Monitoring and Maintenance. Institutional controls would consist of incorporating land use controls (LUCs) for SWMU 40 into the RFAAP Installation Master Plan, Geographic Information System, and other instructions and orders as applicable to ensure long-term protection of human health and the environment. The ICs were to be designed along with engineering controls to maintain appropriate containment of landfill material and prevent unacceptable human health and environmental exposure. The engineering controls were to include repairs to the landfill soil cap along the northern edge of the landfill where small swales and gullies had excised into the northern edge/slope. The repaired areas would be stabilized and seeded to provide vegetative cover. Lastly, long term monitoring and maintenance would be conducted in accordance with an LTM Plan, to include inspection and maintenance of the landfill area and periodic groundwater monitoring for a time necessary to demonstrate containment. Remedy effectiveness evaluations were specified as occurring at a minimum of five year intervals.

UXB-KEMRON prepared the IMWP on behalf of the Army in conformance with the specifications detailed for Alternative 2 in the approved Final RFI/CMS. Consistent with the selected remedy, the IMWP (KEMRON 2011) included repair to the landfill cap in areas impacted by surface erosion, placement of clean cover to address the potential unacceptable exposure to the surficial area of PCB contamination in soil located adjacent to the northern escarpment of the landfill, installation of one additional downgradient monitoring well, initiation of LTM activities associated with cap maintenance and monitoring, groundwater monitoring, and establishment of LUCs for the site.

The IMWP was approved by USEPA and VDEQ on August 26, 2011.The IMCR proved documentation of the completion of the IMs and was approved by USEPA and VDEQ July 10, 2012. The LTM activities and resulting data were presented in LTM Reports, which were submitted to USEPA and VDEQ for review and approval. The LTM Reports for Year 1, Year 2, and Year 3 were approved by regulatory personnel, and included reductions in groundwater monitoring requirements in accordance with the approved August 2011 IMWP. The Year 4 LTM Report was submitted to USEPA and VDEQ for review and approval on March 10, 2015. Multiple monitoring parameters were eliminated from the groundwater monitoring through LTM optimization, applying the decision criteria established in the LTM portion of the IMWP (see Section 2.1 for additional detail regarding decision criteria). Remaining parameters were assessed in the Year 4 LTM (March 2015) report; all remaining analytes were demonstrated to be at stable or declining concentrations, and/or demonstrated to consistently have been detected below relevant Safe Drinking Water Act Maximum Contaminant Levels (MCLs) or other relevant screening levels. Therefore, the Year 4 LTM Report contained recommendations for discontinuing groundwater monitoring based on decision criteria established in the approved August 2011 IMWP. The Year 4 LTM Report was approved without comment by USEPA and VDEQ via correspondence dated May 5, 2015. All LTM data for SWMU 40 is included in Appendix B. As part of the remedy, Land Use Controls (LUCs) continue to be implemented and enforced for SWMU 40. The remedy review inspection was completed by Mr. Jonah Anderson of KEMRON in December 2014 and is further detailed in this report.

1.1.3 Physiography

RFAAP lies within the Valley and Ridge province of the Appalachian physiographic division. The Valley and Ridge province is characterized by a series of long, narrow, flat-topped mountain ridges separated by valleys of varying widths. RFAAP is located within a valley. The Master Work Plan (MWP) (URS, 2003) provides additional detail regarding the General Physiography of RFAAP, with the MMA discussed in Section 3.2 of the MWP. In summary, the SWMU 40, RAAP-009 site is located within a portion of the MMA that is characterized by gently to steeply sloping ridges, the presence of landforms indicative of karst topography (e.g., sinkholes), and a general downward slope toward the northwest. SWMU 40 is situated topographically lower than areas to the east, south, and west, and topographically higher than areas to the north (Figure 2).

1.1.4 Surface and Ground Water

No surface water bodies are present at SWMU 40. Few surface water bodies are present in the area and storm water drainage has been described as occurring primarily via infiltration and overland flow in ditches along engineered roadways. Surface water runoff from the landfill flows toward the north along several distinct gullies and swales, which cut into the northern edge/slope of the landfill. Approximately one mile to the northwest of SWMU 40 is the New River, which functions as a regional hydraulic boundary.

Ground water flow was characterized during the LTM phase of the IMs and typically flows to the northwest. Potentiometric surface maps have been prepared and presented in each LTM report. The most current potentiometric surface map is included as Figure 3.

1.1.5 Site soils

Information on the soil types found in the MMA of RFAAP is presented in Section 3.5.1 of the MWP and Section 2.3 of the Final RFI/CMS. Soil at SWMU 40 has been mapped locally as Unison-Urban Land Complex (URS, 2003). Undisturbed soil typically consists of a 14-inch thick layer of dark brown loam (surface) and a 43-inch thick subsoil of yellowish-red, sticky plastic clay, which is underlain by a red sandy clay loam to a depth of 58 inches (URS, 2009). The permeability of the soil is moderate, natural fertility is low, and organic matter content is low to moderate. It is typically medium to strongly acidic with a pH of 4.5 to 5.5 (USDA, 1995). However, land-surface disturbances have removed the surface loam and parts of the underlying soil horizons. Specific physical properties of site soil were evaluated for the RFI by submitting four soil samples to URS' laboratory in Totowa, New Jersey for physical testing for various parameters as summarized in Table 2-1 of the Final RFI/CMS. Site soils at SWMU 40 were augmented during the IM implementation, with imported clean clay and top soil applied during cap repairs.

1.1.6 Site Geology

Regional and general geology at RFAAP are discussed in Sections 3.6 and 3.7 of the MWP, respectively. Geologic and subsurface conditions at SWMU 40 were assessed during the RFI by completing geophysical surveys, soil borings and rock borings, test pits, installation of groundwater monitoring wells, and geological site reconnaissance.

Section 2.6 of the Final RFI/CMS provides additional details regarding the site geology. In summary, four geologic strata identified at SWMU 40 include soil fill, landfill material, soil weathered in place from bedrock and bedrock. The landfill cover was identified in the RFI/CMS as dark brown to yellowish brown lean clay and sandy lean clay with variable gravel at the surface or near surface. As noted in the

previous section, the landfill cover was augmented during the landfill repairs during IM implementation. The thickness of landfill material identified during the RFI/CMS ranged from 3 to 14.5 feet. The landfill materials consisted of gray to black clay, sand, gravel and cinders mixed with abundant paper, glass, plastic, metal, wood chips, rubber and bagged garbage. In some portions of the landfill the materials were composed primarily of soil fill with only minor amount of other types of material.

The soil weather in place below the landfill material was documented in the RFI/CMS as argillaceous carbonate bedrock, described as brown to yellowish red clay, with variable sand content and occasional gravel. Physical samples collected and tested during the RFI had vertical hydraulic conductivities in the range of 1E-7 to 1E-08 centimeters per second. The underlying soil ranged from 1 to 26.8 feet in thickness. Bedrock underlies the weathered soil layer, consisting of Cambrian age Elbrook Formation, a laminated to thick-bedded dolomite, thin- to medium-bedded limestone, and dolomitic platy shale and siltstone.

1.2 Corrective Measures Objectives

The Corrective Measures Objectives (CMOs) for SWMU 40 were developed in the RFI/CMS for the contaminants of concern (COCs) and media of interest with consideration of the following specific facts:

- Current land use of the site is undeveloped industrial consisting of a 2-acre closed landfill;
- Land use of the site is unlikely to change in the future (e.g., industrial with no development) due to the presence of a closed landfill;
- Potential site-related COCs in groundwater are limited to chloroform, which has been detected at concentrations below the Federal drinking water standard (MCL) of 80 µg/L for total trihalomethanes.

The CMO discussion in the RFI/CMS stated that the residential exposure pathway would be evaluated in the CMS to assess the remedial effort that would be required to achieve clean closure at SWMU 40 with unrestricted future land use without controls or long-term monitoring requirements.

Based on the results of the site, risk, and fate and transport assessments of the RFI/CMS, the CMOs developed for SWMU 40 were:

- Maintain containment of the landfill material at the site and implement necessary controls to prevent future uncontrolled human exposure to this landfill material.
- Implement any necessary measures to stabilize and repair the landfill cover at the northern edge of the landfill area to prevent any further mass transport of soil material in this area.

Establishment of numerical remedial goals (RGs) for media at SWMU 40 (i.e., soil and groundwater) was not required as part of the CMS or IM, based on the RFI/CMS findings and given that the current and foreseeable future use of the property will remain in support of the Army mission and specifically SWMU 40 will remain a closed landfill area.

1.3 Project Objectives

In accordance with the *SWMU 40 Final RFI/CMS,* April 2009, and the Final IMWP, August 2011, IMs were conducted to accelerate closure of this site and begin LTM. The IMs included the following objectives as established via the RFI/CMS Corrective Measure Alternative 2:

1. **Engineering Controls (ECs) and Landfill Cap Repairs:** ECs included repairs to the landfill cap where evidence of erosion had been noted, primarily the north face of the unit. Repaired areas were stabilized and seeded to support a vegetative cover and minimize additional erosion.

2. **Monitoring Well Installation:** Installation of 40MW7 on the downgradient side of SWMU 40. A location was preselected approximately 135 feet west-northwest of the landfill area as indicated and more fully described in the approved RAAP-009 SWMU 40 Final RFI/CMS.
3. **Long Term Monitoring and Maintenance:** Conduct of LTM per the LTM Plan.

As also identified in the RFI/CMS and IMWP, LUCs would be established to ensure on-going maintenance of the site as industrial/commercial use. Section 2 of this report provides additional details of the IM implementation to achieve the project objectives to protect human health and the environment.

2.0 REMEDY REVIEW

2.1 Interim Measures Completion

SWMU 40 required cap repair along the north face in order to eliminate impacts associated with overland precipitation flow, resulting in creation of small gullies. Surface water was observed to flow across the surface of the landfill and accumulates in a localized portion of the north face of the landfill slope. Over time, surface water run-off in this portion of the north face of the landfill slope had caused erosion damage/small gullies that were localized and were less than 1-foot in depth. ECs included repairs to the existing landfill cap along the northern edge of the landfill area where erosion had occurred.

In accordance with the approved August 2011 IMWP, excavation into the landfill did not occur. Surface water overland flow on the landfill was prevented from flowing over the top edge of the north face and down the landfill north slope by the repair and construction of soil berms along the top edge of the landfill slopes to direct surface water into a lined, rip-rap drainage swale. The drainage swale was shaped to collect surface water at the top of the landfill slope and discharge it at the base of the landfill slope. The drainage swale was shaped by placing and compacting clean backfill within an existing erosion gully. The compacted soil swale was covered with a geotextile liner (65 mil Mirafi 160N) and riprap (6-inch nominal diameter). The geotextile liner was installed to help stabilize the slope and support the riprap. Riprap was placed to help reduce the velocity of the surface water. The rip-rap was approximately 6-inches nominal diameter and 1.5-feet in depth within the drainage swale.

The drainage swale was installed in the area of the largest existing gullies. Once installed, the area surrounding the drainage swale was backfilled with clean clay to fill in any other existing gullies and the existing grade was maintained to allow for mowing and maintenance of the north face of the landfill. Clay was covered with topsoil to allow for establishment of appropriate vegetative cover. Furthermore, the surrounding slope that shows evidence of erosion was backfilled and the slope was graded and seeded.

The backfill was similar in composition to the material used on the existing cap, which has been classified as clay according to the Unified Soil Classification System (USCS). Soil was compacted between lifts and the process was repeated until the gullies and drainage swale had been restored to the surrounding or final grade. Rip-rap was placed around the bottom of the drainage swale to prevent localized erosion and pooling of surface water.

As part of the interim measures, a 2-foot thick clay cover cap was placed over the exposed PCBs detected during the RFI at location 40SS1 to eliminate potential future exposure. Location 40SS1 was located in the field by a licensed surveyor and based off of the location provided within the approved IMWP (August 2011). The cover material consists of clay (CL) and will serve to be a protective cover with low permeability. The clay cover was compacted in accordance with the approved IMWP. Six inches of top soil was placed over the emplaced clay to ensure appropriate substrate for re-establishment of vegetation.

In accordance with the approved IMWP, a sign was posted (as part of the LUC) at SWMU 40 to identify it as a closed unit. Labeling on the sign was consistent with signs at other closed units at RFAAP and was installed March 2014. Specifically, the sign states:

"Unauthorized Personnel Keep Out – This site is subject to Land Use Controls. Maintain this site in its current industrial/commercial state. Maintain the vegetative cover and prevent future residential use of this site. Contact the Environmental Department with questions."

A photograph of the sign is included in Appendix A.

UXB-KEMRON conducted additional maintenance repairs in the area near SWMU 40 to provide enhanced stability of the slope and address the potential for erosion in the surrounding area. Using the same methods as those described for SWMU 40, an additional drainage swale was established, with geotextile liner and rip-rap emplaced over compacted clay. The additional maintenance provides enhanced runoff control and improves the ability of personnel to conduct mowing in the area.

The new groundwater monitoring well 40MW7 was installed on the downgradient side of SWMU 40 at the location specified in the Final RFI/CMS. The location of the well is approximately 135 feet west-northwest of the landfill area. Monitoring well 40MW7 was designed and installed similar to existing wells at SWMU 40. 40MW7 was installed following the procedures outlined in SOP 20.1 of the approved work plan and as described in Section 5.2 of the RFAAP Master Work Plan (MWP; URS, 2003) for installation of multi-cased wells. A truck mounted, air rotary drill rig was used to install 40MW7. The rig was owned and operated by Bedford Well Drilling, a Virginia licensed well driller (license number 2701-02-5236). All well installation work was overseen and documented in field notes by UXB-KEMRON.

UXB-KEMRON completed implementation of the approved IMWP from October 17 through November 17, 2011. The IM implementation was consistent with the final, approved RFI/CMS (URS, April 2009) and the approved IMWP (UXB-KEMRON, 2011). The landfill repairs have been completed and the Corrective Measures Objectives have been achieved.

The first year of long term monitoring (LTM) included four quarterly monitoring events with the exception of dioxins and furans which were sampled and analyzed only in the first quarterly sampling event of the first year of LTM as specified in the approved IMWP and CMS. The LTM Report for year one was submitted with outlined reduction of analyte requirements to optimize the LTM Program. The reduction of COPC's for the LTM program was approved by USEPA and VDEQ May 30, 2013. Year 2 LTM activities and results were presented in a report dated October 2013 and approved by USEPA and VDEQ January 7, 2014. The Year 3 LTM Report dated July 2014 was submitted with outlined reduction of analyte requirements to further optimize the LTM Program and was approved by USEPA and VDEQ September 9, 2014. The Year 4 LTM Report dated March 2015 was submitted to regulators and detailed discontinuation of ground water monitoring in accordance with the approved IMWP. The Year 4 LTM Report was approved without comment by USEPA and VDEQ on May 5, 2015.

All LTM data in the groundwater reports were screened in accordance with the approved IMWP. Data screening (Appendix B) was conducted in the Year 1, Year 2, Year 3, and Year 4 LTM reports consistent with the IMWP to eliminate any analytes that met screening criteria outlined below to further optimize the LTM Program.

A list of the specific analytes included in the groundwater LTM program and their associated limits of detection (LODs) and limits of quantitation (LOQs) were presented in the site-specific Quality Assurance Project Plan (QAPP), Appendix B to the IMWP, Master Work Plan Addendum #30 (UXB-KEMRON, 2011).

The following criteria established in the IMWP were applied to the data evaluation and optimization of the monitoring program after the first four quarters of data generation, the year two, the year three, and the year four data generation:

1) Analytes that did not exceed the laboratory LOD during three (3) consecutive monitoring events or exceed the LOQ during the first four (4) monitoring events will not require further sampling and analysis;
2) Analyte detections that did not exceed the established background concentration for 3 successive sampling events will not require further sampling and analysis;

3) Analyte detections that did not exceed half the relevant MCL or half the relevant Regional Screening Level (RSL) as presented in the approved IMWP for 3 successive sampling events and the results displayed a static or downward trend will not require further sampling and analysis.

The site specific data was evaluated using appropriate statistical methodologies, and data assessment was conducted in general conformance with the recommendations of USEPA guidance entitled *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance, March 2009* (EPA 530/R-09-007).

Additional long term maintenance was conducted at SWMU 40, RAAP-009; including inspection of the landfill cap to ensure that the landfill cap integrity is maintained. Inspections were conducted in conjunction with groundwater monitoring events, and periodic additional undocumented inspections conducted by RFAAP personnel during mowing and routine site visits/work.

Formal documented inspections include visual evaluation and written documentation of negative effects of the following:

1. Precipitation run-on and runoff;
2. Water and/or wind erosion;
3. Rodent and/or vector activity;
4. Deep root vegetation;
5. Vegetative stress and other cover condition;
6. Subsidence or cracks in cap;
7. Excavation or other manmade intrusive work conducted within the landfill footprint.

An inspection form is completed for the formal inspections as they are completed. The previous landfill cap inspections are documented in the relevant LTM reports (KEMRON 2012, 2013, 2014, and 2015). The most recent inspection was conducted during the LTM groundwater sampling event December 1, 2014 along with the remedy review inspection. No issues or deficiencies have been noted during any inspection. The LUCs are being maintained and the repairs conducted during the IM continue to provide stability to the landfill cap. Vegetation is well established, mowing is being conducted periodically to prevent deep root vegetation from becoming established, and no corrective actions have been necessary since IM implementation.

2.2 Community Notification and Involvement

Throughout the remedy planning and implementation, KEMRON provided the necessary support to initiate, schedule, and address all public participation aspects of the project (e.g., preparation of briefings, presentations, fact sheets, newsletters, and notifications to RAB members). All KEMRON public participation coordination was approved by the Army through the COR. RFAAP RAB meetings have been scheduled by RFAAP personnel and notification of the meetings was supplied to KEMRON. KEMRON attended and presented project information at all Restoration and Advisory Board (RAB) meetings as requested by the COR. Any presentation materials developed by KEMRON for the RAB meetings were provided to the contractor responsible for collating such materials and preparing the RAB meeting minutes. In addition, all final approved documents were submitted to the contractor responsible and posted to the RAB website, http://www.radfordaapirp.org/. The project Repository, and the Administrative Record are maintained at the Montgomery-Floyd Regional Library, Christiansburg Branch, 125 Sheltman Road, Christiansburg, VA, (540) 382- 6965. KEMRON provided deliverables in both electronic and hard copies for ease of the Army's maintenance of the Repository and Administrative Record.

2.3 Technical Assessment

The completion of the IM included installation of a sign at SWMU 40 stating that the site is subject to land use controls and for unauthorized people to stay out of the area (Appendix A). The entire RFAAP facility is fenced and access is controlled by Army contract security personnel. These access controls and the SWMU 40 LUCs prevent any potential exposure to the public.

In addition to these LUCs, the LTM program at SWMU 40 has been on-going in accordance with the approved IMWP. Each LTM report outlined reductions in and optimization of groundwater monitoring based on the approved screening criteria. The background well at SWMU 40 is LFMW01. The concentrations of specific constituents in downgradient wells (40MW5, 40MW6 and 40MW7) that were not eliminated due to LOQ, LOD and MCL screening criteria were evaluated during the year four LTM report (KEMRON 2015). The Year 4 LTM report recommended discontinuing groundwater monitoring based on remaining analytes showing a downward trend, not exceeding background concentrations, and/or not exceeding an established MCL or relevant screening level. This same LTM report recommends that SWMU 40 inspections continue and the LUCs be maintained. The Year 4 LTM Report was approved by USEPA and VDEQ without comment May 5, 2015.

Additionally, the Agency for Toxic Substances and Disease Registry's (ATSDR) health consultation for Radford Army Ammunition Plant (RFAAP) dated January 28, 2015 was reviewed as part of this remedy review. The ATSDR's stated top priority is to ensure that the people living near the RFAAP in southwestern Virginia have the best information possible to safeguard their health. In February 2012, a local community group asked ATSDR to evaluate whether contaminants from RFAAP could affect the health of people living near the facility. ATSDR agreed to evaluate effects of groundwater and surface water releases from the overall RFAAP site. The health consultation evaluated whether operations at RFAAP released contaminants into groundwater or surface water that could reach drinking water sources.

The ATSDR reached two important conclusions in health consultation. The first conclusion states: "Public water systems in the area are not affected by releases from RFAAP. Therefore, contaminants from RFAAP in drinking water from public water systems cannot harm people's health. Public water authorities in the area obtain drinking water from the New River or Claytor Lake, upstream of RFAAP processing areas and wastewater outfalls. Contaminants cannot physically flow upstream, so there is no way for them to enter these systems. Drinking water quality in local public water systems meets regulatory requirements for safe drinking water. Contaminants entering the New River from RFAAP (in wastewater, stormwater, or groundwater) would be diluted or otherwise attenuated by the large river flow to concentrations below health-based guidelines for drinking water. Thus, a former drinking water intake that operated before 2007 downstream of RFAAP, and any past or current intakes far downstream of RFAAP would not likely be affected by contaminants from the facility." The second conclusion states: "Private wells near RFAAP are unlikely to be affected by releases from the facility. Therefore, contaminants from RFAAP in drinking water from private wells near RFAAP are unlikely to harm people's health. Groundwater at RFAAP does contain areas with high levels of some contaminants. Those contaminated areas have been characterized and are monitored regularly. The available data and principles of groundwater flow indicate that all groundwater at the site discharges to the New River. Once there, any contaminants in groundwater would be diluted or otherwise attenuated by the large river flow and could not re-concentrate in groundwater downstream. No private wells are located within likely flow paths of the groundwater, and wells in the area do not have high enough pump rates to affect groundwater paths. Quality of water in private wells in the area, though not affected by RFAAP, may be affected by contaminants from surface water or other local sources due to the local geology." The ATSDR report presents results of various groundwater studies that illustrate that groundwater flow from SWMU 40 discharges to the New River, which functions as a regional hydraulic boundary. The ATSDR report and its conclusions further support that the LUCs that remain in place at SWMU 40, RAAP-009 are protective of human health and the environment.

All groundwater data collected since completion of the remedy at SWMU 40 has been presented in each LTM Report, and also is provided in table format with comparisons to the approved screening criteria in Appendix B.

This remedy review included a review of the RFI/CMS, IMWP, IMCR, and all LTM data and reports, conduct of a site-specific inspection and verbal discussions with the RFAAP Environmental Department, Mr. Jim McKenna, and RFAAP contractor environmental personnel, Mr. Matt Alberts. Documentation of the most recent SWMU 40 inspection is provided in Appendix C, with site photographs provided in Appendix A.

A review of the site specific data and IM completion records indicate that the exposure assumptions, toxicity data, cleanup levels, and CMO used at the time of remedy selection are still valid. No changes in land use have occurred or are anticipated to occur. The exposure pathways, contaminant characteristics and risk assessment methodologies are unchanged from those incorporated into the remedy development and implementation process. The CMOs have been achieved and the remedy remains effective.

3.0 CONCLUSIONS

3.1 Recommendations and Follow-up Actions

The remedy at SWMU 40 is protective of human health and the environment, and is functioning as intended by the CMS. The CMOs have been achieved and the remedy remains effective. No new information has come to light throughout the LTM period to date that would call the protectiveness of the remedy into question. Exposure pathways that could result in unacceptable risks (e.g., unrestricted use of the property) are being controlled by the established LUCs. USEPA and VDEQ have approved all reports submitted and the conclusions contained in those LTM reports.

Additional LTM activities should include landfill inspections as specified in the IMWP (UXB-KEMRON, 2011), and consistent with inspections performed to date. The LUCs established for SWMU 40 should be maintained and verified as part of the inspection process. Based on the findings of the seven groundwater monitoring events conducted to date under the LTM program for SWMU 40, no further groundwater monitoring is necessary.

Continued enforcement of the Land Use Controls, mowing to control vegetation growth and annual inspections of the SWMU will continue to verify on-going achievement of the CMOs for SWMU 40. Unless the schedule is altered with USEPA and VDEQ agreement, the next remedy review for SWMU 40 should be performed within five years, or no later than calendar year 2020.

4.0 REFERENCES

Alliant Techsystems, Inc. (ATK), 2005. *Safety, Security and Environmental Rules for Contractors, Subcontractors, Tenants and Government Employees.* March 2005.

Intergovernmental Data Quality Task Force, 2005. *Uniform Federal Policy for Implementing Environmental Quality Systems; Evaluating, Assessing, and Documenting Environmental Data Collection/Use and Technology Program* (UFP QAPP), Final, Version 2. March 2005.

KEMRON, 2015. *Radford Army Ammunition Plant, Draft Final Performance Based Acquisition Solid Waste Management Unit 40 (RAAP-009) Landfill Nitro Annual Long Term Monitoring Report Year 4.* March 2015. Approved as Final by USEPA and VDEQ via correspondence dated May 5, 2015.

Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance, March 2009 (EPA 530/R-09-007)

UXB-KEMRON, 2011. *Radford Army Ammunition Plant, Final Performance Based Acquisition Solid Waste Management Unit 40 (RAAP-009) Landfill Nitro Area Interim Measures Work Plan*. August 2011.

UXB-KEMRON, 2012. *Radford Army Ammunition Plant, Final Performance Based Acquisition Solid Waste Management Unit 40 (RAAP-009) Landfill Nitro Area Interim Measures Completion Report.* May 2012.

UXB-KEMRON, 2013. *Radford Army Ammunition Plant, Final Performance Based Acquisition Solid Waste Management Unit 40 (RAAP-009) Landfill Nitro Annual Long Term Monitoring Report.* April 2013.

UXB-KEMRON, 2013. *Radford Army Ammunition Plant, Draft as Final Performance Based Acquisition Solid Waste Management Unit 40 (RAAP-009) Landfill Nitro Annual Long Term Monitoring Report for Year 2.* October 2013.

UXB-KEMRON, 2014. *Radford Army Ammunition Plant, Draft as Final Performance Based Acquisition Solid Waste Management Unit 40 (RAAP-009) Landfill Nitro Annual Long Term Monitoring Report Year 3.* July 2014.

URS Corporation (URS), 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 2003.

URS Corporation (URS), 2009. SWMU 40 (RAAP-009) and 71 (RAAP-002) *RCRA Facility Investigation/Corrective Measures Study Report.* Final. April 2009.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Agency for Toxic Substances and Disease Registry (ATSDR), 2015. *Health Consultation, Evaluation of Potential for Chemicals Released to Groundwater or Surface Water to Affect Drinking Water in the Nearby Community. RADFORD ARMY AMMUNITION PLANT RADFORD, VIRGINIA. EPA FACILITY ID: VA1210020730*. January 28, 2015.

U.S. Environmental Protection Agency (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.

U.S. Environmental Protection Agency, 2011. *Regional Screening Levels for Chemical Contaminants at Superfund Sites*, November 2011 revision. Available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm.

U.S. Environmental Protection Agency, 2011. *List of Contaminants and Their Maximum Contaminant Levels (MCLs)*. Available at: http://water.epa.gov/drink/contaminants/index.cfm#List.

FIGURES

0 500 1000 2000 3000 4000 Feet

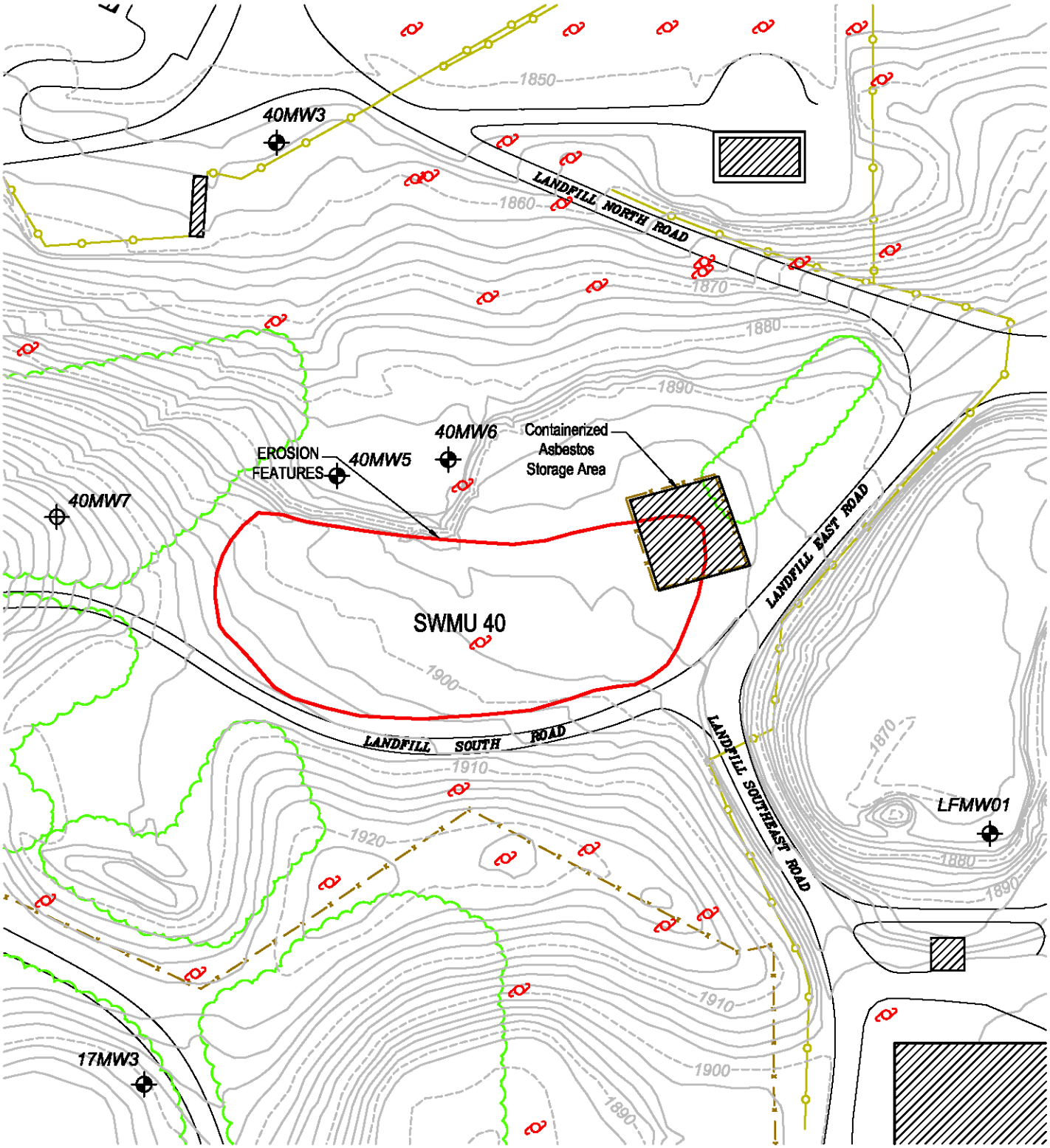
N

Source: Google Earth; Imagery Date: February 1, 2007

KEMRON ENVIRONMENTAL SERVICES

KEMRON Remediation Services, LLC
2359-A Ellsworth Industrial Blvd.
Atlanta, GA 30318

PROJECT NO.	MR0669-400-003	DRAWING DATE:	03/31/2015
DESIGNED DRP	SITE LOCATION MAP		
DETAILED DRP	SWMU 40 REMEDY REVIEW		
CHECKED JA	LOCATION: RADFORD ARMY AMMUNITION PLANT, RADFORD, VIRGINIA	FIGURE:	1



LEGEND

- BUILDINGS
- VEGETATION
- APPROXIMATE SWMU BOUNDARY
- ABOVEGROUND PIPING
- 40MW6 MONITORING WELL LOCATION
- OVERHEAD ELECTRIC POLE
- TOPOGRAPHIC CONTOUR
- FENCE LINE

N

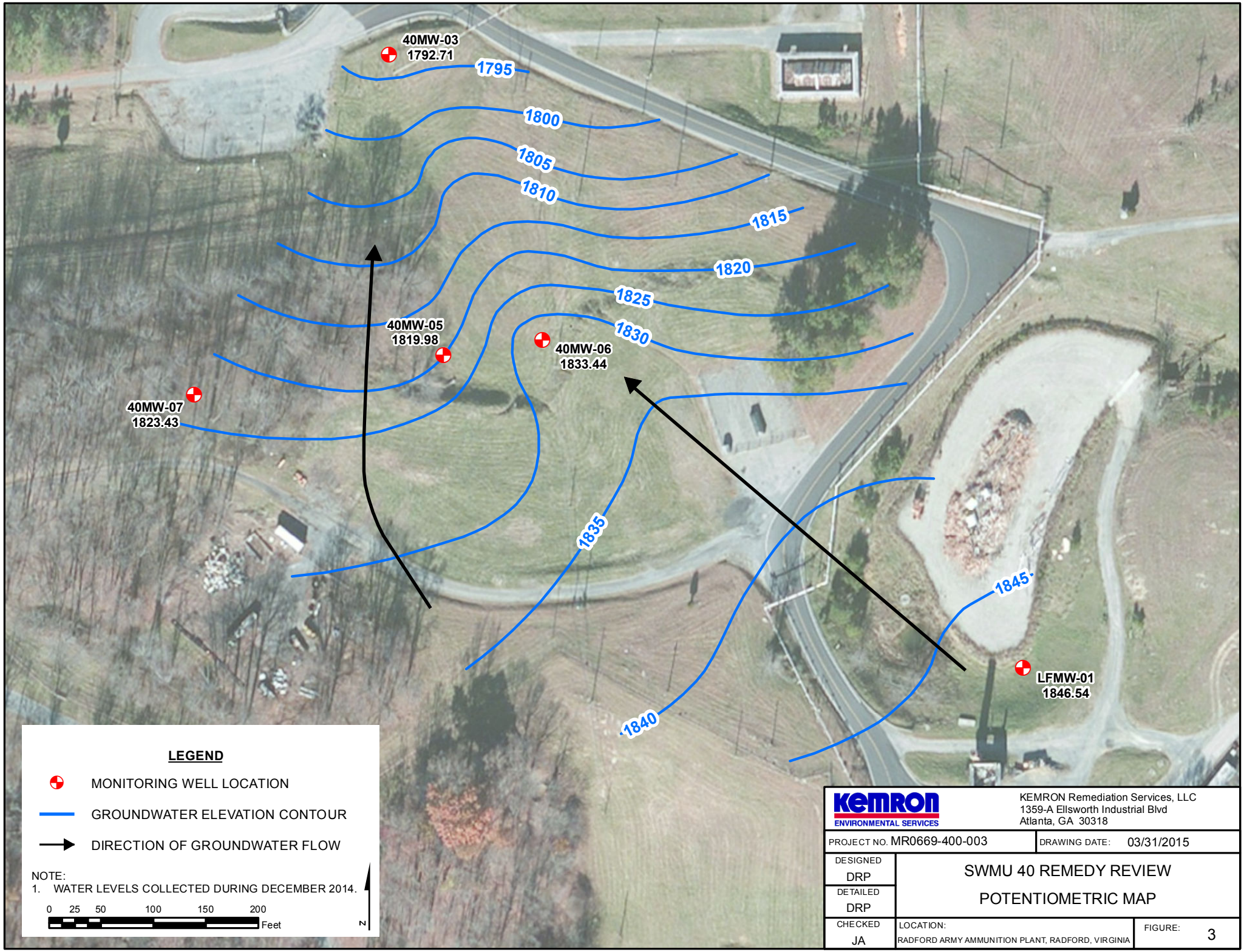
Note:
Base map developed from fig. 2-2
Provided by URS Group, Inc., 1-2008

KEMRON ENVIRONMENTAL SERVICES	0 60 120 SCALE 1"=120' (Approximate)	DRAWN BY: KG	DATE 31 MARCH 2015
		REVIEWED: JA R 5	PROJECT NO. MR0669
		APPROVED:	DWG. FILE NO. SWMU 40. SITE MAP

FIGURE 2

SWMU 40 REMEDY REVIEW
SITE LAYOUT
RADFORD ARMY AMMUNITION PLANT-009
RADFORD, VIRGINIA

FILE PATH: (LOVETON) M:\MARIETTA\O MR 0669 003-001\200\MR0669. FIG. 2. SWMU 40. SITE LAYOUT.DWG [FIG. 2] 8/24/10
PLOTTED: August 25, 2010 - 3:25 PM, BY: Karen Grigoryan


40MW-03
1792.71
1795
1800
1805
1810
1815
1820
1825
1830
1835
1840
1845
40MW-05
1819.98
40MW-06
1833.44
40MW-07
1823.43
LFMW-01
1846.54
LEGEND
MONITORING WELL LOCATION
GROUNDWATER ELEVATION CONTOUR
DIRECTION OF GROUNDWATER FLOW
NOTE:
1. WATER LEVELS COLLECTED DURING DECEMBER 2014.
0 25 50 100 150 200
Feet
N
KEMRON ENVIRONMENTAL SERVICES
KEMRON Remediation Services, LLC
1359-A Ellsworth Industrial Blvd
Atlanta, GA 30318
PROJECT NO. MR0669-400-003
DRAWING DATE: 03/31/2015
DESIGNED DRP
DETAILED DRP
CHECKED JA
SWMU 40 REMEDY REVIEW
POTENTIOMETRIC MAP
LOCATION:
RADFORD ARMY AMMUNITION PLANT, RADFORD, VIRGINIA
FIGURE: 3

APPENDIX A
Site Photographs

View of SWMU 40 to the East

View of SWMU 40 to the West

View to the North of SWMU 40

View of SWMU 40 Swale

View to the West of SWMU 40

Setting up on 40MW-5 for Ground Water Sampling

APPENDIX B
Analytical Tables and Trend Analysis Graphs

Table 1
November 2011 Screening Levels for Groundwater SVOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID Sample ID Sample Date Sample Type	40LFMW01 40LFMW01GW112111 11/21/2011 N					40LFMW01 40DUPGW030612 3/6/2012 FD				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C	120-82-1	1,2,4-Trichlorobenzene	0.99	0.39	70	ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	95-50-1	1,2-Dichlorobenzene		28	600	ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	541-73-1	1,3-Dichlorobenzene				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	106-46-7	1,4-Dichlorobenzene	0.42	47	75	ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	95-95-4	2,4,5-Trichlorophenol		89		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	88-06-2	2,4,6-Trichlorophenol	3.5	0.9		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	120-83-2	2,4-Dichlorophenol		3.5		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	105-67-9	2,4-Dimethylphenol		27		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	51-28-5	2,4-Dinitrophenol		3		ug/L	**< 13.4**	U	13.4	26.9	ug/L	**< 13.2**	U	13.2	26.3	ug/L
SW8270C	121-14-2	2,4-Dinitrotoluene	0.2	3		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	606-20-2	2,6-Dinitrotoluene		1.5		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	91-58-7	2-Chloronaphthalene		55		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	95-57-8	2-Chlorophenol		7.1		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	91-57-6	2-Methylnaphthalene		2.7		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	95-48-7	2-Methylphenol		72		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	88-74-4	2-Nitroaniline		15		ug/L	13.4	U	13.4	26.9	ug/L	13.2	U	13.2	26.3	ug/L
SW8270C	88-75-5	2-Nitrophenol				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	91-94-1	3,3'-Dichlorobenzidine	0.11			ug/L	**< 2.69**	U	2.69	10.8	ug/L	**< 2.63**	U	2.63	10.5	ug/L
SW8270C	106-44-5	3-,4-Methylphenol		7.2		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	99-09-2	3-Nitroaniline				ug/L	< 13.4	U	13.4	26.9	ug/L	< 13.2	U	13.2	26.3	ug/L
SW8270C	534-52-1	4,6-Dinitro-2-methylphenol		0.12		ug/L	**< 13.4**	U	13.4	26.9	ug/L	**< 13.2**	U	13.2	26.3	ug/L
SW8270C	101-55-3	4-Bromophenyl-phenylether				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	59-50-7	4-Chloro-3-methylphenol		110		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	106-47-8	4-Chloroaniline	0.32	5.9		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	7005-72-3	4-Chlorophenyl-phenyl ether				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	100-01-6	4-Nitroaniline	3.3	6.1		ug/L	**< 13.4**	U	13.4	26.9	ug/L	**< 13.2**	U	13.2	26.3	ug/L
SW8270C	100-02-7	4-Nitrophenol				ug/L	< 13.4	U	13.4	26.9	ug/L	< 13.2	U	13.2	26.3	ug/L
SW8270C	83-32-9	Acenaphthene		40		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	208-96-8	Acenaphthylene				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	120-12-7	Anthracene		130		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	56-55-3	Benzo(a)anthracene	0.029			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	50-32-8	Benzo(a)pyrene	0.0029		0.2	ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	191-24-2	Benzo(g,h,i)Perylene				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	65-85-0	Benzoic acid		5800		ug/L	13.4	UJ	13.4	26.9	ug/L	13.2	R	13.2	26.3	ug/L
SW8270C	100-51-6	Benzyl alcohol		150		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	111-91-1	Bis(2-Chloroethoxy)Methane		4.7		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	111-44-4	Bis(2-Chloroethyl)ether	0.012			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	108-60-1	bis(2-Chloroisopropyl)ether	0.31	55		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	117-81-7	bis(2-Ethylhexyl)phthalate	0.071	0.46	6	ug/L	**< 3.23**	U	3.23	10.8	ug/L	**< 3.16**	U	3.16	10.5	ug/L
SW8270C	85-68-7	Butylbenzylphthalate	14	120		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	218-01-9	Chrysene	2.9			ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	53-70-3	Dibenzo(a,h)Anthracene	0.0029			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	132-64-9	Dibenzofuran		0.58		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	84-66-2	Diethylphthalate		1100		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	131-11-3	Dimethylphthalate				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	84-74-2	Di-N-Butylphthalate		67		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	117-84-0	Di-n-octylphthalate				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	206-44-0	Fluoranthene		63		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	86-73-7	Fluorene		22		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	118-74-1	Hexachlorobenzene	0.042	1.3	1	ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	87-68-3	Hexachlorobutadiene	0.26	0.47		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	77-47-4	Hexachlorocyclopentadiene		2.2	50	ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	67-72-1	Hexachloroethane	0.79	0.51		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.029			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	78-59-1	Isophorone	67	300		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	91-20-3	Naphthalene	0.14	0.61		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	98-95-3	Nitrobenzene	0.12	1.1		ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	86-30-6	N-Nitrosodiphenylamine	10			ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	621-64-7	N-Nitrosodipropylamine	0.0093			ug/L	**< 2.69**	U	2.69	5.38	ug/L	**< 2.63**	U	2.63	5.26	ug/L
SW8270C	87-86-5	Pentachlorophenol	0.17	7.8	1	ug/L	**< 13.4**	U	13.4	26.9	ug/L	**< 13.2**	U	13.2	26.3	ug/L
SW8270C	85-01-8	Phenanthrene				ug/L	< 2.69	U	2.69	5.38	ug/L	< 2.63	U	2.63	5.26	ug/L
SW8270C	108-95-2	Phenol		450		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L
SW8270C	129-00-0	Pyrene		8.7		ug/L	2.69	U	2.69	5.38	ug/L	2.63	U	2.63	5.26	ug/L

Location ID Sample ID Sample Date Sample Type	40LFMW01 40LFMW01GW030612 3/6/2012 N					40LFMW01 LFMW01GW061212 6/12/2012 N				
Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
1,2,4-Trichlorobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
1,2-Dichlorobenzene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
1,3-Dichlorobenzene	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
1,4-Dichlorobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
2,4,5-Trichlorophenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2,4,6-Trichlorophenol	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
2,4-Dichlorophenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2,4-Dimethylphenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2,4-Dinitrophenol	**< 13.4**	U	13.4	26.9	ug/L	**< 12.5**	UJ	12.5	25	ug/L
2,4-Dinitrotoluene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
2,6-Dinitrotoluene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
2-Chloronaphthalene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2-Chlorophenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2-Methylnaphthalene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2-Methylphenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
2-Nitroaniline	13.4	U	13.4	26.9	ug/L	12.5	U	12.5	25	ug/L
2-Nitrophenol	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
3,3'-Dichlorobenzidine	**< 2.69**	U	2.69	10.8	ug/L	**< 2.5**	U	2.5	10	ug/L
3-,4-Methylphenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
3-Nitroaniline	< 13.4	U	13.4	26.9	ug/L	< 12.5	U	12.5	25	ug/L
4,6-Dinitro-2-methylphenol	**< 13.4**	U	13.4	26.9	ug/L	**< 12.5**	U	12.5	25	ug/L
4-Bromophenyl-phenylether	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
4-Chloro-3-methylphenol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
4-Chloroaniline	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
4-Chlorophenyl-phenyl ether	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
4-Nitroaniline	**< 13.4**	U	13.4	26.9	ug/L	**< 12.5**	U	12.5	25	ug/L
4-Nitrophenol	< 13.4	U	13.4	26.9	ug/L	< 12.5	U	12.5	25	ug/L
Acenaphthene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Acenaphthylene	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
Anthracene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Benzo(a)anthracene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzo(a)pyrene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzo(b)fluoranthene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzo(g,h,i)Perylene	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
Benzo(k)fluoranthene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzoic acid	13.4	R	13.4	26.9	ug/L	12.5	UJ	12.5	25	ug/L
Benzyl alcohol	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Bis(2-Chloroethoxy)Methane	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Bis(2-Chloroethyl)ether	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
bis(2-Chloroisopropyl)ether	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
bis(2-Ethylhexyl)phthalate	**< 3.23**	U	3.23	10.8	ug/L	**< 3**	U	3	10	ug/L
Butylbenzylphthalate	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Chrysene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Dibenzo(a,h)Anthracene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Dibenzofuran	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Diethylphthalate	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Dimethylphthalate	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
Di-N-Butylphthalate	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Di-n-octylphthalate	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
Fluoranthene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Fluorene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Hexachlorobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Hexachlorobutadiene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Hexachlorocyclopentadiene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	UJ	2.5	5	ug/L
Hexachloroethane	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Indeno(1,2,3-cd)pyrene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Isophorone	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
Naphthalene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Nitrobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
N-Nitrosodiphenylamine	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L
N-Nitrosodipropylamine	**< 2.69**	U	2.69	5.38	ug/L	**< 2.5**	U	2.5	5	ug/L
Pentachlorophenol	**< 13.4**	U	13.4	26.9	ug/L	**< 12.5**	U	12.5	25	ug/L
Phenanthrene	< 2.69	U	2.69	5.38	ug/L	< 2.5	U	2.5	5	ug/L
Phenol	2.69	U	2.69	5.38	ug/L	2.5	UL	2.5	5	ug/L
Pyrene	2.69	U	2.69	5.38	ug/L	2.5	U	2.5	5	ug/L

Location ID Sample ID Sample Date Sample Type	40LFMW01 LFMW01GW92612 9/26/2012 N					40MW5 40DUPGW112011 11/20/2011 FD				
Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
1,2,4-Trichlorobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
1,2-Dichlorobenzene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
1,3-Dichlorobenzene	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
1,4-Dichlorobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
2,4,5-Trichlorophenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
2,4,6-Trichlorophenol	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
2,4-Dichlorophenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
2,4-Dimethylphenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
2,4-Dinitrophenol	**< 13.4**	U	13.4	26.9	ug/L	**< 14.9**	U	14.9	29.8	ug/L
2,4-Dinitrotoluene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
2,6-Dinitrotoluene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
2-Chloronaphthalene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
2-Chlorophenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
2-Methylnaphthalene	2.69	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
2-Methylphenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
2-Nitroaniline	13.4	U	13.4	26.9	ug/L	14.9	U	14.9	29.8	ug/L
2-Nitrophenol	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
3,3'-Dichlorobenzidine	**< 2.69**	U	2.69	10.8	ug/L	**< 2.98**	U	2.98	11.9	ug/L
3-,4-Methylphenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
3-Nitroaniline	< 13.4	U	13.4	26.9	ug/L	< 14.9	U	14.9	29.8	ug/L
4,6-Dinitro-2-methylphenol	**< 13.4**	U	13.4	26.9	ug/L	**< 14.9**	U	14.9	29.8	ug/L
4-Bromophenyl-phenylether	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
4-Chloro-3-methylphenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
4-Chloroaniline	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
4-Chlorophenyl-phenyl ether	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
4-Nitroaniline	**< 13.4**	U	13.4	26.9	ug/L	**< 14.9**	U	14.9	29.8	ug/L
4-Nitrophenol	< 13.4	U	13.4	26.9	ug/L	< 14.9	U	14.9	29.8	ug/L
Acenaphthene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Acenaphthylene	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
Anthracene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Benzo(a)anthracene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Benzo(a)pyrene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Benzo(b)fluoranthene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Benzo(g,h,i)Perylene	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
Benzo(k)fluoranthene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Benzoic acid	13.4	R	13.4	26.9	ug/L	14.9	UJ	14.9	29.8	ug/L
Benzyl alcohol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Bis(2-Chloroethoxy)Methane	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Bis(2-Chloroethyl)ether	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
bis(2-Chloroisopropyl)ether	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
bis(2-Ethylhexyl)phthalate	**< 3.23**	U	3.23	10.8	ug/L	**< 3.57**	U	3.57	11.9	ug/L
Butylbenzylphthalate	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Chrysene	2.69	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Dibenzo(a,h)Anthracene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Dibenzofuran	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Diethylphthalate	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Dimethylphthalate	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
Di-N-Butylphthalate	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Di-n-octylphthalate	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
Fluoranthene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Fluorene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Hexachlorobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Hexachlorobutadiene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Hexachlorocyclopentadiene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Hexachloroethane	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Indeno(1,2,3-cd)pyrene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Isophorone	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Naphthalene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Nitrobenzene	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
N-Nitrosodiphenylamine	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
N-Nitrosodipropylamine	**< 2.69**	U	2.69	5.38	ug/L	**< 2.98**	U	2.98	5.95	ug/L
Pentachlorophenol	**< 13.4**	U	13.4	26.9	ug/L	**< 14.9**	U	14.9	29.8	ug/L
Phenanthrene	< 2.69	U	2.69	5.38	ug/L	< 2.98	U	2.98	5.95	ug/L
Phenol	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L
Pyrene	2.69	U	2.69	5.38	ug/L	2.98	U	2.98	5.95	ug/L

Location ID Sample ID Sample Date Sample Type	40MW5 40MW5GW112011 11/20/2011 N					40MW5 40MW5GW030712 3/7/2012 N				
Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
1,2,4-Trichlorobenzene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
1,2-Dichlorobenzene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
1,3-Dichlorobenzene	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
1,4-Dichlorobenzene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
2,4,5-Trichlorophenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
2,4,6-Trichlorophenol	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
2,4-Dichlorophenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
2,4-Dimethylphenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
2,4-Dinitrophenol	**< 12.5**	U	12.5	25	ug/L	**< 12.8**	U	12.8	25.5	ug/L
2,4-Dinitrotoluene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
2,6-Dinitrotoluene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
2-Chloronaphthalene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
2-Chlorophenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
2-Methylnaphthalene	2.5	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
2-Methylphenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
2-Nitroaniline	12.5	U	12.5	25	ug/L	12.8	U	12.8	25.5	ug/L
2-Nitrophenol	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
3,3'-Dichlorobenzidine	**< 2.5**	U	2.5	10	ug/L	**< 2.55**	U	2.55	10.2	ug/L
3-,4-Methylphenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
3-Nitroaniline	< 12.5	U	12.5	25	ug/L	< 12.8	U	12.8	25.5	ug/L
4,6-Dinitro-2-methylphenol	**< 12.5**	U	12.5	25	ug/L	**< 12.8**	U	12.8	25.5	ug/L
4-Bromophenyl-phenylether	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
4-Chloro-3-methylphenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
4-Chloroaniline	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
4-Chlorophenyl-phenyl ether	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
4-Nitroaniline	**< 12.5**	U	12.5	25	ug/L	**< 12.8**	U	12.8	25.5	ug/L
4-Nitrophenol	< 12.5	U	12.5	25	ug/L	< 12.8	U	12.8	25.5	ug/L
Acenaphthene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Acenaphthylene	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
Anthracene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Benzo(a)anthracene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Benzo(a)pyrene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Benzo(b)fluoranthene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Benzo(g,h,i)Perylene	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
Benzo(k)fluoranthene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Benzoic acid	12.5	UJ	12.5	25	ug/L	12.8	R	12.8	25.5	ug/L
Benzyl alcohol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Bis(2-Chloroethoxy)Methane	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Bis(2-Chloroethyl)ether	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
bis(2-Chloroisopropyl)ether	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
bis(2-Ethylhexyl)phthalate	**< 3**	U	3	10	ug/L	**< 3.06**	U	3.06	10.2	ug/L
Butylbenzylphthalate	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Chrysene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Dibenzo(a,h)Anthracene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Dibenzofuran	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Diethylphthalate	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Dimethylphthalate	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
Di-N-Butylphthalate	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Di-n-octylphthalate	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
Fluoranthene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Fluorene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Hexachlorobenzene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Hexachlorobutadiene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Hexachlorocyclopentadiene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Hexachloroethane	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Indeno(1,2,3-cd)pyrene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Isophorone	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Naphthalene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Nitrobenzene	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
N-Nitrosodiphenylamine	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
N-Nitrosodipropylamine	**< 2.5**	U	2.5	5	ug/L	**< 2.55**	U	2.55	5.1	ug/L
Pentachlorophenol	**< 12.5**	U	12.5	25	ug/L	**< 12.8**	U	12.8	25.5	ug/L
Phenanthrene	< 2.5	U	2.5	5	ug/L	< 2.55	U	2.55	5.1	ug/L
Phenol	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L
Pyrene	2.5	U	2.5	5	ug/L	2.55	U	2.55	5.1	ug/L

Location ID Sample ID Sample Date Sample Type	40MW5 40MW5GW061212 6/12/2012 N					40MW5 40DUPGW92512 9/25/2012 FD				
Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
1,2,4-Trichlorobenzene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
1,2-Dichlorobenzene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
1,3-Dichlorobenzene	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
1,4-Dichlorobenzene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
2,4,5-Trichlorophenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2,4,6-Trichlorophenol	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
2,4-Dichlorophenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2,4-Dimethylphenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2,4-Dinitrophenol	**< 12.8**	UJ	12.8	25.5	ug/L	**< 12.5**	U	12.5	25	ug/L
2,4-Dinitrotoluene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
2,6-Dinitrotoluene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
2-Chloronaphthalene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2-Chlorophenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2-Methylnaphthalene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2-Methylphenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
2-Nitroaniline	12.8	U	12.8	25.5	ug/L	12.5	U	12.5	25	ug/L
2-Nitrophenol	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
3,3'-Dichlorobenzidine	**< 2.55**	U	2.55	10.2	ug/L	**< 2.5**	U	2.5	10	ug/L
3-,4-Methylphenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
3-Nitroaniline	< 12.8	U	12.8	25.5	ug/L	< 12.5	U	12.5	25	ug/L
4,6-Dinitro-2-methylphenol	**< 12.8**	U	12.8	25.5	ug/L	**< 12.5**	U	12.5	25	ug/L
4-Bromophenyl-phenylether	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
4-Chloro-3-methylphenol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
4-Chloroaniline	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
4-Chlorophenyl-phenyl ether	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
4-Nitroaniline	**< 12.8**	U	12.8	25.5	ug/L	**< 12.5**	U	12.5	25	ug/L
4-Nitrophenol	< 12.8	U	12.8	25.5	ug/L	< 12.5	U	12.5	25	ug/L
Acenaphthene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Acenaphthylene	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
Anthracene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Benzo(a)anthracene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzo(a)pyrene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzo(b)fluoranthene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzo(g,h,i)Perylene	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
Benzo(k)fluoranthene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Benzoic acid	12.8	UJ	12.8	25.5	ug/L	12.5	R	12.5	25	ug/L
Benzyl alcohol	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Bis(2-Chloroethoxy)Methane	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Bis(2-Chloroethyl)ether	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
bis(2-Chloroisopropyl)ether	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
bis(2-Ethylhexyl)phthalate	**< 3.06**	U	3.06	10.2	ug/L	**3.2**	J	3	10	ug/L
Butylbenzylphthalate	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Chrysene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Dibenzo(a,h)Anthracene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	UJ	2.5	5	ug/L
Dibenzofuran	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Diethylphthalate	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Dimethylphthalate	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
Di-N-Butylphthalate	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Di-n-octylphthalate	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
Fluoranthene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Fluorene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Hexachlorobenzene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Hexachlorobutadiene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Hexachlorocyclopentadiene	**< 2.55**	UJ	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Hexachloroethane	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Indeno(1,2,3-cd)pyrene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Isophorone	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Naphthalene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Nitrobenzene	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
N-Nitrosodiphenylamine	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
N-Nitrosodipropylamine	**< 2.55**	U	2.55	5.1	ug/L	**< 2.5**	U	2.5	5	ug/L
Pentachlorophenol	**< 12.8**	U	12.8	25.5	ug/L	**< 12.5**	U	12.5	25	ug/L
Phenanthrene	< 2.55	U	2.55	5.1	ug/L	< 2.5	U	2.5	5	ug/L
Phenol	2.55	UL	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L
Pyrene	2.55	U	2.55	5.1	ug/L	2.5	U	2.5	5	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

UXB Kemron Remediation Services, LLC

Table 1
November 2011 Screening Levels for Groundwater SVOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID Sample ID Sample Date Sample Type	40MW5 40MW5GW92512 9/25/2012 N					40MW6 40MW6GW112111 11/21/2011 N					40MW6 40MW6GW030712 3/7/2012 N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C	120-82-1	1,2,4-Trichlorobenzene	0.99	0.39	70	ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	95-50-1	1,2-Dichlorobenzene		28	600	ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	541-73-1	1,3-Dichlorobenzene				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	106-46-7	1,4-Dichlorobenzene	0.42	47	75	ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	95-95-4	2,4,5-Trichlorophenol		89		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	88-06-2	2,4,6-Trichlorophenol	3.5	0.9		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	120-83-2	2,4-Dichlorophenol		3.5		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	105-67-9	2,4-Dimethylphenol		27		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	51-28-5	2,4-Dinitrophenol		3		ug/L	**< 13.2**	U	13.2	26.5	ug/L	**< 13.6**	U	13.6	27.2	ug/L	**< 13.3**	U	13.3	26.6	ug/L
SW8270C	121-14-2	2,4-Dinitrotoluene	0.2	3		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	606-20-2	2,6-Dinitrotoluene		1.5		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	91-58-7	2-Chloronaphthalene		55		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	95-57-8	2-Chlorophenol		7.1		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	91-57-6	2-Methylnaphthalene		2.7		ug/L	2.65	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	95-48-7	2-Methylphenol		72		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	88-74-4	2-Nitroaniline		15		ug/L	13.2	U	13.2	26.5	ug/L	13.6	U	13.6	27.2	ug/L	13.3	U	13.3	26.6	ug/L
SW8270C	88-75-5	2-Nitrophenol				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	91-94-1	3,3'-Dichlorobenzidine	0.11			ug/L	**< 2.65**	U	2.65	10.6	ug/L	**< 2.72**	U	2.72	10.9	ug/L	**< 2.66**	U	2.66	10.6	ug/L
SW8270C	106-44-5	3-,4-Methylphenol		7.2		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	99-09-2	3-Nitroaniline				ug/L	< 13.2	U	13.2	26.5	ug/L	< 13.6	U	13.6	27.2	ug/L	< 13.3	U	13.3	26.6	ug/L
SW8270C	534-52-1	4,6-Dinitro-2-methylphenol		0.12		ug/L	**< 13.2**	U	13.2	26.5	ug/L	**< 13.6**	U	13.6	27.2	ug/L	**< 13.3**	U	13.3	26.6	ug/L
SW8270C	101-55-3	4-Bromophenyl-phenylether				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	59-50-7	4-Chloro-3-methylphenol		110		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	106-47-8	4-Chloroaniline	0.32	5.9		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	7005-72-3	4-Chlorophenyl-phenyl ether				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	100-01-6	4-Nitroaniline	3.3	6.1		ug/L	**< 13.2**	U	13.2	26.5	ug/L	**< 13.6**	U	13.6	27.2	ug/L	**< 13.3**	U	13.3	26.6	ug/L
SW8270C	100-02-7	4-Nitrophenol				ug/L	< 13.2	U	13.2	26.5	ug/L	< 13.6	U	13.6	27.2	ug/L	< 13.3	U	13.3	26.6	ug/L
SW8270C	83-32-9	Acenaphthene		40		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	208-96-8	Acenaphthylene				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	120-12-7	Anthracene		130		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	56-55-3	Benzo(a)anthracene	0.029			ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	50-32-8	Benzo(a)pyrene	0.0029		0.2	ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	191-24-2	Benzo(g,h,i)Perylene				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	65-85-0	Benzoic acid		5800		ug/L	13.2	R	13.2	26.5	ug/L	13.6	UJ	13.6	27.2	ug/L	13.3	R	13.3	26.6	ug/L
SW8270C	100-51-6	Benzyl alcohol		150		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	111-91-1	Bis(2-Chloroethoxy)Methane		4.7		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	111-44-4	Bis(2-Chloroethyl)ether	0.012			ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	108-60-1	bis(2-Chloroisopropyl)ether	0.31	55		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	117-81-7	bis(2-Ethylhexyl)phthalate	0.071	0.46	6	ug/L	**< 3.17**	U	3.17	10.6	ug/L	**< 3.26**	U	3.26	10.9	ug/L	**< 3.19**	U	3.19	10.6	ug/L
SW8270C	85-68-7	Butylbenzylphthalate	14	120		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	218-01-9	Chrysene	2.9			ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	53-70-3	Dibenzo(a,h)Anthracene	0.0029			ug/L	**< 2.65**	UJ	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	132-64-9	Dibenzofuran		0.58		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	84-66-2	Diethylphthalate		1100		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	131-11-3	Dimethylphthalate				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	84-74-2	Di-N-Butylphthalate		67		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	117-84-0	Di-n-octylphthalate				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	206-44-0	Fluoranthene		63		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	86-73-7	Fluorene		22		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	118-74-1	Hexachlorobenzene	0.042	1.3	1	ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	87-68-3	Hexachlorobutadiene	0.26	0.47		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	77-47-4	Hexachlorocyclopentadiene		2.2	50	ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	67-72-1	Hexachloroethane	0.79	0.51		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.029			ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	78-59-1	Isophorone	67	300		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	91-20-3	Naphthalene	0.14	0.61		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	98-95-3	Nitrobenzene	0.12	1.1		ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	86-30-6	N-Nitrosodiphenylamine	10			ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	621-64-7	N-Nitrosodipropylamine	0.0093			ug/L	**< 2.65**	U	2.65	5.29	ug/L	**< 2.72**	U	2.72	5.43	ug/L	**< 2.66**	U	2.66	5.32	ug/L
SW8270C	87-86-5	Pentachlorophenol	0.17	7.8	1	ug/L	**< 13.2**	U	13.2	26.5	ug/L	**< 13.6**	U	13.6	27.2	ug/L	**< 13.3**	U	13.3	26.6	ug/L
SW8270C	85-01-8	Phenanthrene				ug/L	< 2.65	U	2.65	5.29	ug/L	< 2.72	U	2.72	5.43	ug/L	< 2.66	U	2.66	5.32	ug/L
SW8270C	108-95-2	Phenol		450		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L
SW8270C	129-00-0	Pyrene		8.7		ug/L	2.65	U	2.65	5.29	ug/L	2.72	U	2.72	5.43	ug/L	2.66	U	2.66	5.32	ug/L

Location ID Sample ID Sample Date Sample Type	40MW6 40DUPGW061212 6/12/2012 FD					40MW6 40MW6GW061212 6/12/2012 N					40MW6 40MW6GW92512 9/25/2012 N					40MW7 40MW7GW112011 11/20/2011 N				
Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
1,2,4-Trichlorobenzene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
1,2-Dichlorobenzene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
1,3-Dichlorobenzene	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
1,4-Dichlorobenzene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
2,4,5-Trichlorophenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2,4,6-Trichlorophenol	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
2,4-Dichlorophenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2,4-Dimethylphenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2,4-Dinitrophenol	**< 13**	UJ	13	26	ug/L	**< 12.5**	UJ	12.5	25	ug/L	**< 13.2**	U	13.2	26.3	ug/L	**< 13.3**	U	13.3	26.6	ug/L
2,4-Dinitrotoluene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
2,6-Dinitrotoluene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
2-Chloronaphthalene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2-Chlorophenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2-Methylnaphthalene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2-Methylphenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
2-Nitroaniline	13	U	13	26	ug/L	12.5	U	12.5	25	ug/L	13.2	U	13.2	26.3	ug/L	13.3	U	13.3	26.6	ug/L
2-Nitrophenol	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
3,3'-Dichlorobenzidine	**< 2.6**	U	2.6	10.4	ug/L	**< 2.5**	U	2.5	10	ug/L	**< 2.63**	U	2.63	10.5	ug/L	**< 2.66**	U	2.66	10.6	ug/L
3-,4-Methylphenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
3-Nitroaniline	< 13	U	13	26	ug/L	< 12.5	U	12.5	25	ug/L	< 13.2	U	13.2	26.3	ug/L	< 13.3	U	13.3	26.6	ug/L
4,6-Dinitro-2-methylphenol	**< 13**	U	13	26	ug/L	**< 12.5**	U	12.5	25	ug/L	**< 13.2**	U	13.2	26.3	ug/L	**< 13.3**	U	13.3	26.6	ug/L
4-Bromophenyl-phenylether	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
4-Chloro-3-methylphenol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
4-Chloroaniline	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
4-Chlorophenyl-phenyl ether	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
4-Nitroaniline	**< 13**	U	13	26	ug/L	**< 12.5**	U	12.5	25	ug/L	**< 13.2**	U	13.2	26.3	ug/L	**< 13.3**	U	13.3	26.6	ug/L
4-Nitrophenol	< 13	U	13	26	ug/L	< 12.5	U	12.5	25	ug/L	< 13.2	U	13.2	26.3	ug/L	< 13.3	U	13.3	26.6	ug/L
Acenaphthene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Acenaphthylene	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
Anthracene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Benzo(a)anthracene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Benzo(a)pyrene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Benzo(b)fluoranthene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Benzo(g,h,i)Perylene	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
Benzo(k)fluoranthene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Benzoic acid	13	UJ	13	26	ug/L	12.5	UJ	12.5	25	ug/L	13.2	R	13.2	26.3	ug/L	13.3	UJ	13.3	26.6	ug/L
Benzyl alcohol	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Bis(2-Chloroethoxy)Methane	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Bis(2-Chloroethyl)ether	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
bis(2-Chloroisopropyl)ether	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
bis(2-Ethylhexyl)phthalate	**< 3.13**	U	3.13	10.4	ug/L	**< 3**	U	3	10	ug/L	**< 3.16**	U	3.16	10.5	ug/L	**5.31**	B	3.19	10.6	ug/L
Butylbenzylphthalate	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Chrysene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Dibenzo(a,h)Anthracene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Dibenzofuran	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Diethylphthalate	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Dimethylphthalate	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
Di-N-Butylphthalate	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Di-n-octylphthalate	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
Fluoranthene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Fluorene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Hexachlorobenzene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Hexachlorobutadiene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Hexachlorocyclopentadiene	**< 2.6**	UJ	2.6	5.21	ug/L	**< 2.5**	UJ	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Hexachloroethane	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Indeno(1,2,3-cd)pyrene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Isophorone	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Naphthalene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Nitrobenzene	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
N-Nitrosodiphenylamine	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
N-Nitrosodipropylamine	**< 2.6**	U	2.6	5.21	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.63**	U	2.63	5.26	ug/L	**< 2.66**	U	2.66	5.32	ug/L
Pentachlorophenol	**< 13**	U	13	26	ug/L	**< 12.5**	U	12.5	25	ug/L	**< 13.2**	U	13.2	26.3	ug/L	**< 13.3**	U	13.3	26.6	ug/L
Phenanthrene	< 2.6	U	2.6	5.21	ug/L	< 2.5	U	2.5	5	ug/L	< 2.63	U	2.63	5.26	ug/L	< 2.66	U	2.66	5.32	ug/L
Phenol	2.6	UL	2.6	5.21	ug/L	2.5	UL	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L
Pyrene	2.6	U	2.6	5.21	ug/L	2.5	U	2.5	5	ug/L	2.63	U	2.63	5.26	ug/L	2.66	U	2.66	5.32	ug/L

Location ID Sample ID Sample Date Sample Type	40MW7 40MW7GW030612 3/6/2012 N					40MW7 40MW7GW601212 6/12/2012 N					40MW7 40MW7GW92512 9/25/2012 N				
Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
1,2,4-Trichlorobenzene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
1,2-Dichlorobenzene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
1,3-Dichlorobenzene	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
1,4-Dichlorobenzene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
2,4,5-Trichlorophenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
2,4,6-Trichlorophenol	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
2,4-Dichlorophenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
2,4-Dimethylphenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
2,4-Dinitrophenol	**< 13.6**	U	13.6	27.2	ug/L	**< 12.5**	UJ	12.5	25	ug/L	**< 14.2**	U	14.2	28.4	ug/L
2,4-Dinitrotoluene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
2,6-Dinitrotoluene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
2-Chloronaphthalene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
2-Chlorophenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
2-Methylnaphthalene	**< 2.72**	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
2-Methylphenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
2-Nitroaniline	13.6	U	13.6	27.2	ug/L	12.5	U	12.5	25	ug/L	14.2	U	14.2	28.4	ug/L
2-Nitrophenol	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
3,3'-Dichlorobenzidine	**< 2.72**	U	2.72	10.9	ug/L	**< 2.5**	U	2.5	10	ug/L	**< 2.84**	U	2.84	11.4	ug/L
3-,4-Methylphenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
3-Nitroaniline	< 13.6	U	13.6	27.2	ug/L	< 12.5	U	12.5	25	ug/L	< 14.2	U	14.2	28.4	ug/L
4,6-Dinitro-2-methylphenol	**< 13.6**	U	13.6	27.2	ug/L	**< 12.5**	U	12.5	25	ug/L	**< 14.2**	U	14.2	28.4	ug/L
4-Bromophenyl-phenylether	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
4-Chloro-3-methylphenol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
4-Chloroaniline	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
4-Chlorophenyl-phenyl ether	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
4-Nitroaniline	**< 13.6**	U	13.6	27.2	ug/L	**< 12.5**	U	12.5	25	ug/L	**< 14.2**	U	14.2	28.4	ug/L
4-Nitrophenol	< 13.6	U	13.6	27.2	ug/L	< 12.5	U	12.5	25	ug/L	< 14.2	U	14.2	28.4	ug/L
Acenaphthene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Acenaphthylene	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
Anthracene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Benzo(a)anthracene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Benzo(a)pyrene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Benzo(b)fluoranthene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Benzo(g,h,i)Perylene	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
Benzo(k)fluoranthene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Benzoic acid	13.6	R	13.6	27.2	ug/L	12.5	UJ	12.5	25	ug/L	14.2	R	14.2	28.4	ug/L
Benzyl alcohol	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Bis(2-Chloroethoxy)Methane	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Bis(2-Chloroethyl)ether	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
bis(2-Chloroisopropyl)ether	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
bis(2-Ethylhexyl)phthalate	**< 3.26**	U	3.26	10.9	ug/L	**< 3**	U	3	10	ug/L	**< 3.41**	U	3.41	11.4	ug/L
Butylbenzylphthalate	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Chrysene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Dibenzo(a,h)Anthracene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Dibenzofuran	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Diethylphthalate	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Dimethylphthalate	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
Di-N-Butylphthalate	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Di-n-octylphthalate	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
Fluoranthene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Fluorene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Hexachlorobenzene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Hexachlorobutadiene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Hexachlorocyclopentadiene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	UJ	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Hexachloroethane	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Indeno(1,2,3-cd)pyrene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Isophorone	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Naphthalene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Nitrobenzene	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
N-Nitrosodiphenylamine	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
N-Nitrosodipropylamine	**< 2.72**	U	2.72	5.43	ug/L	**< 2.5**	U	2.5	5	ug/L	**< 2.84**	U	2.84	5.68	ug/L
Pentachlorophenol	**< 13.6**	U	13.6	27.2	ug/L	**< 12.5**	U	12.5	25	ug/L	**< 14.2**	U	14.2	28.4	ug/L
Phenanthrene	< 2.72	U	2.72	5.43	ug/L	< 2.5	U	2.5	5	ug/L	< 2.84	U	2.84	5.68	ug/L
Phenol	2.72	U	2.72	5.43	ug/L	2.5	UL	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L
Pyrene	2.72	U	2.72	5.43	ug/L	2.5	U	2.5	5	ug/L	2.84	U	2.84	5.68	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
\### = Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

UXB Kemron Remediation Services, LLC

Revised Date: 4/6/2015

Table 2
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012				
						Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	90-12-0	1-Methylnaphthalene	0.97	46		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	91-57-6	2-Methylnaphthalene		2.7		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	83-32-9	Acenaphthene		40		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	208-96-8	Acenaphthylene				ug/L	< 0.0281	U	0.0281	0.0562	ug/L	< 0.026	U	0.026	0.0521	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0281	U	0.0281	0.0562	ug/L	< 0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	120-12-7	Anthracene		130		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	191-24-2	Benzo(g,h,i)Perylene				ug/L	< 0.0281	U	0.0281	0.0562	ug/L	< 0.026	U	0.026	0.0521	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0281	U	0.0281	0.0562	ug/L	< 0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0308	J	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	53-70-3	Dibenzo(a,h)Anthracene	0.0029			ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L
SW8270C PAHL	206-44-0	Fluoranthene		63		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	86-73-7	Fluorene		22		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	193-39-5	Indeno(1,2,3-cd)pyrene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	91-20-3	Naphthalene	0.14	0.61		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	85-01-8	Phenanthrene				ug/L	< 0.0281	U	0.0281	0.0562	ug/L	< 0.026	U	0.026	0.0521	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0281	U	0.0281	0.0562	ug/L	< 0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	129-00-0	Pyrene		8.7		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L

Notes:
CAS = Chemical Abstracts Service
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T = Total
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CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
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Table 2
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

					Location ID		40MW5					40MW5					40MW5					40MW5					40MW5				
					Sample ID		40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512				
					Sample Date		11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012				
					Sample Type		FD					N					N					N					FD				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	90-12-0	1-Methylnaphthalene	0.97	46		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	91-57-6	2-Methylnaphthalene		2.7		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	83-32-9	Acenaphthene		40		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	208-96-8	Acenaphthylene				ug/L	< 0.0263	U	0.0263	0.0526	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0255	U	0.0255	0.051	ug/L	< 0.026	UJ	0.026	0.0521	ug/L	< 0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	120-12-7	Anthracene		130		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0263**	U	0.0263	0.0526	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.026**	UJ	0.026	0.0521	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	191-24-2	Benzo(g,h,i)Perylene				ug/L	< 0.0263	U	0.0263	0.0526	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	<0.0255	U	0.0255	0.051	ug/L	< 0.026	UJ	0.026	0.0521	ug/L	< 0.0255	UJ	0.0255	0.051	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	53-70-3	Dibenzo(a,h)Anthracene	0.0029			ug/L	**< 0.0263**	U	0.0263	0.0526	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.026**	UJ	0.026	0.0521	ug/L	**< 0.0255**	UJ	0.0255	0.051	ug/L
SW8270C PAHL	206-44-0	Fluoranthene		63		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	86-73-7	Fluorene		22		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	193-39-5	Indeno(1,2,3-cd)pyrene	0.029			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	UJ	0.0255	0.051	ug/L
SW8270C PAHL	91-20-3	Naphthalene	0.14	0.61		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	85-01-8	Phenanthrene				ug/L	< 0.0263	U	0.0263	0.0526	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0255	U	0.0255	0.051	ug/L	< 0.026	UJ	0.026	0.0521	ug/L	< 0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	129-00-0	Pyrene		8.7		ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L

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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

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UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
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Table 2
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

					Location ID		40MW5					40MW6					40MW6					40MW6					40MW6				
					Sample ID		40MW5GW92512					40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212				
					Sample Date		9/25/2012					11/21/2011					3/7/2012					6/12/2012					6/12/2012				
					Sample Type		N					N					N					FD					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	90-12-0	1-Methylnaphthalene	0.97	46		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	91-57-6	2-Methylnaphthalene		2.7		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	83-32-9	Acenaphthene		40		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	208-96-8	Acenaphthylene				ug/L	< 0.0338	U	0.0338	0.0676	ug/L	<0.0287	U	0.0287	0.0575	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0255	U	0.0255	0.051	ug/L	< 0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	120-12-7	Anthracene		130		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.211**	J	0.0281	0.0562	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	**< 0.0287**	U	0.0287	0.0575	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**		0.0255	0.051	ug/L	**0.0793**	J	0.0281	0.0562	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.261**	J	0.0281	0.0562	ug/L
SW8270C PAHL	191-24-2	Benzo(g,h,i)Perylene				ug/L	< 0.0338	UJ	0.0338	0.0676	ug/L	<0.0287	U	0.0287	0.0575	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0255		0.0255	0.051	ug/L	0.0475	J	0.0281	0.0562	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	0.17	J	0.0281	0.0562	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0301		0.0255	0.051	ug/L	0.89	J	0.0281	0.0562	ug/L
SW8270C PAHL	53-70-3	Dibenzo(a,h)Anthracene	0.0029			ug/L	**< 0.0338**	UJ	0.0338	0.0676	ug/L	**< 0.0287**	U	0.0287	0.0575	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L
SW8270C PAHL	206-44-0	Fluoranthene		63		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0265		0.0255	0.051	ug/L	0.606	J	0.0281	0.0562	ug/L
SW8270C PAHL	86-73-7	Fluorene		22		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	< 0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	193-39-5	Indeno(1,2,3-cd)pyrene	0.029			ug/L	**< 0.0338**	UJ	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.0391**	J	0.0281	0.0562	ug/L
SW8270C PAHL	91-20-3	Naphthalene	0.14	0.61		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0281	U	0.0281	0.0562	ug/L
SW8270C PAHL	85-01-8	Phenanthrene				ug/L	< 0.0338	U	0.0338	0.0676	ug/L	<0.0287	U	0.0287	0.0575	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0255		0.0255	0.051	ug/L	0.236	J	0.0281	0.0562	ug/L
SW8270C PAHL	129-00-0	Pyrene		8.7		ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	0.476	J	0.0281	0.0562	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
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Table 2
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40MW6					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW6GW92512					40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512				
						Sample Date	9/25/2012					11/20/2011					3/6/2012					6/12/2012					9/25/2012				
						Sample Type	N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	90-12-0	1-Methylnaphthalene	0.97	46		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	91-57-6	2-Methylnaphthalene		2.7		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	83-32-9	Acenaphthene		40		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	208-96-8	Acenaphthylene				ug/L	< 0.0281	U	0.0281	0.0562	ug/L	<0.0255	U	0.0255	0.051	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0284	U	0.0284	0.0568	ug/L	< 0.025	U	0.025	0.05	ug/L
SW8270C PAHL	120-12-7	Anthracene		130		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0284**	U	0.0284	0.0568	ug/L	**< 0.025**	U	0.025	0.05	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	191-24-2	Benzo(g,h,i)Perylene				ug/L	< 0.0281	U	0.0281	0.0562	ug/L	<0.0255	U	0.0255	0.051	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0284	U	0.0284	0.0568	ug/L	< 0.025	U	0.025	0.05	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0832	J	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	53-70-3	Dibenzo(a,h)Anthracene	0.0029			ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0284**	U	0.0284	0.0568	ug/L	**< 0.025**	U	0.025	0.05	ug/L
SW8270C PAHL	206-44-0	Fluoranthene		63		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0327	B	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	86-73-7	Fluorene		22		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	193-39-5	Indeno(1,2,3-cd)pyrene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	91-20-3	Naphthalene	0.14	0.61		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0299	J	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	85-01-8	Phenanthrene				ug/L	< 0.0281	U	0.0281	0.0562	ug/L	<0.0255	U	0.0255	0.051	ug/L	< 0.0269	U	0.0269	0.0538	ug/L	< 0.0284	U	0.0284	0.0568	ug/L	< 0.025	U	0.025	0.05	ug/L
SW8270C PAHL	129-00-0	Pyrene		8.7		ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L

Notes:
CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID Sample ID Sample Date Sample Type	40LFMW01 40LFMW01GW112111 11/21/2011 N					40LFMW01 40DUPGW030612 3/6/2012 FD				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	630-20-6	1,1,1,2-Tetrachloroethane	0.5	37		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	71-55-6	1,1,1-Trichloroethane		750	200	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	0.066	28		ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
SW8260B	79-00-5	1,1,2-Trichloroethane	0.24	0.041	5	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	75-34-3	1,1-Dichloroethane	2.4	290		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	75-35-4	1,1-Dichloroethene		26	7	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	563-58-6	1,1-Dichloropropene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	87-61-6	1,2,3-Trichlorobenzene		0.52		ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L
SW8260B	96-18-4	1,2,3-Trichloropropane	0.00065	0.062		ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW8260B	120-82-1	1,2,4-Trichlorobenzene	0.99	0.39	70	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	95-63-6	1,2,4-Trimethylbenzene		1.5		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	96-12-8	1,2-Dibromo-3-chloropropane	0.00032	0.036	0.2	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L
SW8260B	106-93-4	1,2-Dibromoethane	0.0065	1.6	0.05	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	95-50-1	1,2-Dichlorobenzene		28	600	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	107-06-2	1,2-Dichloroethane	0.15	1.3	5	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	78-87-5	1,2-Dichloropropane	0.38	0.83	5	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	108-67-8	1,3,5-Trimethylbenzene		8.7		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	541-73-1	1,3-Dichlorobenzene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	142-28-9	1,3-Dichloropropane		29		ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	106-46-7	1,4-Dichlorobenzene	0.42	47	75	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	594-20-7	2,2-Dichloropropane				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	78-93-3	2-Butanone		490		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
SW8260B	95-49-8	2-Chlorotoluene		18		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	591-78-6	2-Hexanone		3.4		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
SW8260B	106-43-4	4-Chlorotoluene		19		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	108-10-1	4-Methyl-2-pentanone		100		ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L
SW8260B	71-43-2	Benzene	0.39	2.9	5	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	108-86-1	Bromobenzene		5.4		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	74-97-5	Bromochloromethane		8.3		ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	75-27-4	Bromodichloromethane	0.12	29	80	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	75-25-2	Bromoform	7.9	29	80	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	74-83-9	Bromomethane		0.7		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	75-15-0	Carbon disulfide		72		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	56-23-5	Carbon tetrachloride	0.39	4	5	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	108-90-7	Chlorobenzene		7.2	100	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	124-48-1	Chlorodibromomethane	0.15	29	80	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	75-00-3	Chloroethane		2100		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	67-66-3	Chloroform	0.19	8.4	80	ug/L	**0.947**	B	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	74-87-3	Chloromethane		19		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	156-59-2	cis-1,2-Dichloroethene		2.8	70	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	10061-01-5	cis-1,3-Dichloropropene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	74-95-3	Dibromomethane		0.79		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	75-71-8	Dichlorodifluoromethane		19		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	100-41-4	Ethylbenzene	1.3	67	700	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	87-68-3	Hexachlorobutadiene	0.26	0.47		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	98-82-8	Isopropylbenzene		39		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	XYLMP	M,P-XYLENE (SUM OF ISOMERS)		19		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	75-09-2	Methylene chloride	4.7	64	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L
SW8260B	91-20-3	Naphthalene	0.14	0.61		ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
SW8260B	104-51-8	n-Butylbenzene		78		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	103-65-1	n-Propylbenzene		53		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	95-47-6	o-Xylene		19		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	99-87-6	p-Isopropyltoluene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	135-98-8	sec-Butylbenzene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	100-42-5	Styrene		110	100	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	98-06-6	tert-Butylbenzene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	127-18-4	Tetrachloroethene	0.072	8.4	5	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	108-88-3	Toluene		86	1000	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	156-60-5	trans-1,2-Dichloroethene		8.6	100	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	10061-02-6	trans-1,3-Dichloropropene				ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L
SW8260B	79-01-6	Trichloroethene	0.44	0.26	5	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	75-69-4	Trichlorofluoromethane		110		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	108-05-4	Vinyl acetate		41		ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L
SW8260B	75-01-4	Vinyl chloride	0.015	3.6	2	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L

		40LFMW01 40LFMW01GW030612 3/6/2012 N					40LFMW01 LFMW01GW061212 6/12/2012 N					40LFMW01 LFMW01GW92612 9/26/2012 N				
CAS	Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
75-34-3	1,1-Dichloroethane	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
563-58-6	1,1-Dichloropropene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L
96-18-4	1,2,3-Trichloropropane	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L
106-93-4	1,2-Dibromoethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
107-06-2	1,2-Dichloroethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
541-73-1	1,3-Dichlorobenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
594-20-7	2,2-Dichloropropane	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
78-93-3	2-Butanone	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
110-75-8	2-Chloroethyl vinyl ether	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
95-49-8	2-Chlorotoluene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
591-78-6	2-Hexanone	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
106-43-4	4-Chlorotoluene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
108-10-1	4-Methyl-2-pentanone	2.5	UJ	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
67-64-1	Acetone	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L
71-43-2	Benzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
108-86-1	Bromobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
75-27-4	Bromodichloromethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
75-25-2	Bromoform	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
75-15-0	Carbon disulfide	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
56-23-5	Carbon tetrachloride	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
108-90-7	Chlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
124-48-1	Chlorodibromomethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
75-00-3	Chloroethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
67-66-3	Chloroform	0.125	U	0.125	1	ug/L	**1.13**		0.125	1	ug/L	**1.08**	B	0.125	1	ug/L
74-87-3	Chloromethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
100-41-4	Ethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
87-68-3	Hexachlorobutadiene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
98-82-8	Isopropylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
75-09-2	Methylene chloride	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L
91-20-3	Naphthalene	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
103-65-1	n-Propylbenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
95-47-6	o-Xylene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
99-87-6	p-Isopropyltoluene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
135-98-8	sec-Butylbenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
100-42-5	Styrene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
98-06-6	tert-Butylbenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
127-18-4	Tetrachloroethene	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
108-88-3	Toluene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L
79-01-6	Trichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
75-69-4	Trichlorofluoromethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
108-05-4	Vinyl acetate	2.5	UJ	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
75-01-4	Vinyl chloride	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L

		40MW5 40DUPGW112011 11/20/2011 FD					40MW5 40MW5GW112011 11/20/2011 N					40MW5 40MW5GW030712 3/7/2012 N				
CAS	Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
75-34-3	1,1-Dichloroethane	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
563-58-6	1,1-Dichloropropene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L
96-18-4	1,2,3-Trichloropropane	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L
106-93-4	1,2-Dibromoethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
107-06-2	1,2-Dichloroethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
541-73-1	1,3-Dichlorobenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
594-20-7	2,2-Dichloropropane	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
78-93-3	2-Butanone	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
110-75-8	2-Chloroethyl vinyl ether	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
95-49-8	2-Chlorotoluene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
591-78-6	2-Hexanone	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
106-43-4	4-Chlorotoluene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
108-10-1	4-Methyl-2-pentanone	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L
67-64-1	Acetone	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L
71-43-2	Benzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
108-86-1	Bromobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
75-27-4	Bromodichloromethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
75-25-2	Bromoform	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
75-15-0	Carbon disulfide	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
56-23-5	Carbon tetrachloride	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
108-90-7	Chlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
124-48-1	Chlorodibromomethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
75-00-3	Chloroethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
67-66-3	Chloroform	**3.33**		0.125	1	ug/L	**3.17**		0.125	1	ug/L	**1.71**		0.125	1	ug/L
74-87-3	Chloromethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
100-41-4	Ethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
87-68-3	Hexachlorobutadiene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
98-82-8	Isopropylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
75-09-2	Methylene chloride	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L
91-20-3	Naphthalene	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
103-65-1	n-Propylbenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
95-47-6	o-Xylene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
99-87-6	p-Isopropyltoluene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
135-98-8	sec-Butylbenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
100-42-5	Styrene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
98-06-6	tert-Butylbenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
127-18-4	Tetrachloroethene	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
108-88-3	Toluene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L
79-01-6	Trichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
75-69-4	Trichlorofluoromethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
108-05-4	Vinyl acetate	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
75-01-4	Vinyl chloride	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L

		40MW5 40MW5GW061212 6/12/2012 N					40MW5 40DUPGW92512 9/25/2012 FD					40MW5 40MW5GW92512 9/25/2012 N				
CAS	Chemical	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	UL	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L
75-34-3	1,1-Dichloroethane	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
563-58-6	1,1-Dichloropropene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	UL	0.15	1	ug/L
96-18-4	1,2,3-Trichloropropane	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	UL	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	UL	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	**< 1**	U	1	5	ug/L	**< 1**	UJ	1	5	ug/L	**< 1**	UL	1	5	ug/L
106-93-4	1,2-Dibromoethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
107-06-2	1,2-Dichloroethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	UL	0.2	1	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
541-73-1	1,3-Dichlorobenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	UL	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
594-20-7	2,2-Dichloropropane	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
78-93-3	2-Butanone	2.5	U	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	UL	2.5	10	ug/L
110-75-8	2-Chloroethyl vinyl ether	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
95-49-8	2-Chlorotoluene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
591-78-6	2-Hexanone	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UL	2.5	10	ug/L
106-43-4	4-Chlorotoluene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
108-10-1	4-Methyl-2-pentanone	2.5	U	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	UL	2.5	10	ug/L
67-64-1	Acetone	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L
71-43-2	Benzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
108-86-1	Bromobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	UL	0.2	1	ug/L
75-27-4	Bromodichloromethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L
75-25-2	Bromoform	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
75-15-0	Carbon disulfide	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
56-23-5	Carbon tetrachloride	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
108-90-7	Chlorobenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
124-48-1	Chlorodibromomethane	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L
75-00-3	Chloroethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
67-66-3	Chloroform	**2.59**		0.125	1	ug/L	**2.73**		0.125	1	ug/L	**3.48**	L	0.125	1	ug/L
74-87-3	Chloromethane	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
100-41-4	Ethylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
87-68-3	Hexachlorobutadiene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
98-82-8	Isopropylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
75-09-2	Methylene chloride	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	UL	0.25	5	ug/L
91-20-3	Naphthalene	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	UL	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
103-65-1	n-Propylbenzene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
95-47-6	o-Xylene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
99-87-6	p-Isopropyltoluene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
135-98-8	sec-Butylbenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
100-42-5	Styrene	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	UL	0.125	1	ug/L
98-06-6	tert-Butylbenzene	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	UL	0.25	1	ug/L
127-18-4	Tetrachloroethene	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L
108-88-3	Toluene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	UL	0.5	1	ug/L
79-01-6	Trichloroethene	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
75-69-4	Trichlorofluoromethane	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	UL	0.25	1	ug/L
108-05-4	Vinyl acetate	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UL	2.5	10	ug/L
75-01-4	Vinyl chloride	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	UL	0.25	1	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512				
						Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					11/20/2011					3/6/2012					6/12/2012					9/25/2012				
						Sample Type	N					N					FD					N					N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	630-20-6	1,1,1,2-Tetrachloroethane	0.5	37		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	71-55-6	1,1,1-Trichloroethane		750	200	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	0.066	28		ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
SW8260B	79-00-5	1,1,2-Trichloroethane	0.24	0.041	5	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	75-34-3	1,1-Dichloroethane	2.4	290		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	75-35-4	1,1-Dichloroethene		26	7	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	563-58-6	1,1-Dichloropropene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	87-61-6	1,2,3-Trichlorobenzene		0.52		ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L	0.15	U	0.15	1	ug/L
SW8260B	96-18-4	1,2,3-Trichloropropane	0.00065	0.062		ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW8260B	120-82-1	1,2,4-Trichlorobenzene	0.99	0.39	70	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	95-63-6	1,2,4-Trimethylbenzene		1.5		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	96-12-8	1,2-Dibromo-3-chloropropane	0.00032	0.036	0.2	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L	**< 1**	U	1	5	ug/L
SW8260B	106-93-4	1,2-Dibromoethane	0.0065	1.6	0.05	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	95-50-1	1,2-Dichlorobenzene		28	600	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	107-06-2	1,2-Dichloroethane	0.15	1.3	5	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	78-87-5	1,2-Dichloropropane	0.38	0.83	5	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	108-67-8	1,3,5-Trimethylbenzene		8.7		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	541-73-1	1,3-Dichlorobenzene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	142-28-9	1,3-Dichloropropane		29		ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	106-46-7	1,4-Dichlorobenzene	0.42	47	75	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	594-20-7	2,2-Dichloropropane				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	78-93-3	2-Butanone		490		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
SW8260B	95-49-8	2-Chlorotoluene		18		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	591-78-6	2-Hexanone		3.4		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
SW8260B	106-43-4	4-Chlorotoluene		19		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	108-10-1	4-Methyl-2-pentanone		100		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	U	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	4.38	L	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L
SW8260B	71-43-2	Benzene	0.39	2.9	5	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	108-86-1	Bromobenzene		5.4		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	74-97-5	Bromochloromethane		8.3		ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L	0.2	U	0.2	1	ug/L
SW8260B	75-27-4	Bromodichloromethane	0.12	29	80	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	75-25-2	Bromoform	7.9	29	80	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	74-83-9	Bromomethane		0.7		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	75-15-0	Carbon disulfide		72		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	56-23-5	Carbon tetrachloride	0.39	4	5	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	108-90-7	Chlorobenzene		7.2	100	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	124-48-1	Chlorodibromomethane	0.15	29	80	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	75-00-3	Chloroethane		2100		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	67-66-3	Chloroform	0.19	8.4	80	ug/L	**2.58**		0.125	1	ug/L	**0.277**	J	0.125	1	ug/L	**2.73**		0.125	1	ug/L	**2.71**		0.125	1	ug/L	**2.72**		0.125	1	ug/L	**1.8**		0.125	1	ug/L	**1.94**		0.125	1	ug/L	**1.99**		0.125	1	ug/L	**1.73**	B	0.125	1	ug/L
SW8260B	74-87-3	Chloromethane		19		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	156-59-2	cis-1,2-Dichloroethene		2.8	70	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	10061-01-5	cis-1,3-Dichloropropene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	74-95-3	Dibromomethane		0.79		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	75-71-8	Dichlorodifluoromethane		19		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	100-41-4	Ethylbenzene	1.3	67	700	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	87-68-3	Hexachlorobutadiene	0.26	0.47		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	98-82-8	Isopropylbenzene		39		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	XYLMP	M,P-XYLENE (SUM OF ISOMERS)		19		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW8260B	75-09-2	Methylene chloride	4.7	64	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L	0.25	U	0.25	5	ug/L
SW8260B	91-20-3	Naphthalene	0.14	0.61		ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L	**< 0.2**	U	0.2	1	ug/L
SW8260B	104-51-8	n-Butylbenzene		78		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	103-65-1	n-Propylbenzene		53		ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	95-47-6	o-Xylene		19		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	99-87-6	p-Isopropyltoluene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	135-98-8	sec-Butylbenzene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	100-42-5	Styrene		110	100	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L	0.125	U	0.125	1	ug/L
SW8260B	98-06-6	tert-Butylbenzene				ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L	< 0.25	U	0.25	1	ug/L
SW8260B	127-18-4	Tetrachloroethene	0.072	8.4	5	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L
SW8260B	108-88-3	Toluene		86	1000	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	156-60-5	trans-1,2-Dichloroethene		8.6	100	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	10061-02-6	trans-1,3-Dichloropropene				ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L	< 0.5	U	0.5	1	ug/L
SW8260B	79-01-6	Trichloroethene	0.44	0.26	5	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	75-69-4	Trichlorofluoromethane		110		ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L	0.25	U	0.25	1	ug/L
SW8260B	108-05-4	Vinyl acetate		41		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L
SW8260B	75-01-4	Vinyl chloride	0.015	3.6	2	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L	**< 0.25**	U	0.25	1	ug/L

Notes:
CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the Nov

Notes:
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VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 4
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

							Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40MW5					40MW5					40MW5				
							Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW112011					40MW5GW112011					40MW5GW030712				
							Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					11/20/2011					11/20/2011					3/7/2012				
							Sample Type	N					FD					N					N					N					FD					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	***17900***		50	100	ug/L	112		50	100	ug/L	123		50	100	ug/L	74.8	J	50	100	ug/L	**9150**		50	100	ug/L	1540		50	100	ug/L	1890		50	100	ug/L	221		50	100	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L	92.9	J	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS				
SW6010B	7439-89-6	Iron, Ferrous	T		1100		ug/L	**21800**	L	50	100	ug/L	87.5	J	50	100	ug/L	93	J	50	100	ug/L	120		50	100	ug/L	**8950**		50	100	ug/L	**1580**	L	50	100	ug/L	**2040**	L	50	100	ug/L	156		50	100	ug/L
SW6010B	7439-89-6	Iron, Ferrous	D		1100		ug/L	102		50	100	ug/L	NS					NS					50	U	50	100	ug/L	74.1	J	50	100	ug/L	82	J	50	100	ug/L	74.1	J	50	100	ug/L	NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	74800		250	500	ug/L	27800		250	500	ug/L	28100		250	500	ug/L	33800		2500	5000	ug/L	51100		250	500	ug/L	31300		250	500	ug/L	32500		250	500	ug/L	33500		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	33100		250	500	ug/L	NS					NS					32700		2500	5000	ug/L	35400		250	500	ug/L	29600		250	500	ug/L	29800		250	500	ug/L	NS				
SW6010B	7440-09-7	Potassium	T				ug/L	5920		500	1000	ug/L	943	J	500	1000	ug/L	885	J	500	1000	ug/L	1740		500	1000	ug/L	3700		500	1000	ug/L	1370		500	1000	ug/L	1370		500	1000	ug/L	1160		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1620		500	1000	ug/L	NS					NS					1630		500	1000	ug/L	1690		500	1000	ug/L	1060		500	1000	ug/L	1080		500	1000	ug/L	NS				
SW6010B	7440-23-5	Sodium	T				ug/L	8230		250	500	ug/L	7860		250	500	ug/L	7690		250	500	ug/L	8450		250	500	ug/L	6640		250	500	ug/L	5480		250	500	ug/L	5220		250	500	ug/L	4790		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	8480		250	500	ug/L	NS					NS					8120		250	500	ug/L	7100		250	500	ug/L	5330		250	500	ug/L	5350		250	500	ug/L	NS				
SW6010B	7440-41-7	Beryllium	T		1.6	4.0	ug/L	1.37	J	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	UJ	1	2	ug/L	1	UJ	1	2	ug/L	1	U	1	2	ug/L
SW6010B	7440-41-7	Beryllium	D		1.6	4.0	ug/L	1	UJ	1	2	ug/L	NS					NS					1	U	1	2	ug/L	1	U	1	2	ug/L	1	UJ	1	2	ug/L	1	UJ	1	2	ug/L	NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**32.5**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**18.1**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS				
SW6010B	7440-66-6	Zinc	T		470		ug/L	126	B	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	52.6		10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L
SW6010B	7440-66-6	Zinc	D		470		ug/L	10	U	10	20	ug/L	NS					NS					10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	NS				
SW6010B	7440-70-2	Calcium	T				ug/L	142000		100	200	ug/L	71300	J	100	200	ug/L	71400	J	100	200	ug/L	82800		1000	2000	ug/L	105000		100	200	ug/L	84800		100	200	ug/L	87200		100	200	ug/L	93400	J	100	200	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81500		100	200	ug/L	NS					NS					82000		1000	2000	ug/L	85700		100	200	ug/L	81700		100	200	ug/L	82800		100	200	ug/L	NS				
SW6020	7439-92-1	Lead	T			15	ug/L	11		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	5.46		0.5	1	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	< 1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1.0	ug/L	NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	**125**		2	4	ug/L	1.25	J	1	2	ug/L	1.52	J	1	2	ug/L	2.18	L	1	2	ug/L	**52.6**		1	2	ug/L	7.67	B	2	4	ug/L	15.2	B	2	4	ug/L	1.11	J	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	3.95	B	2	4	ug/L	NS					NS					1	UL	1	2	ug/L	1	U	1	2	ug/L	2	U	2	4	ug/L	1	U	1	2	ug/L	NS				
SW6020	7440-02-0	Nickel	T		30		ug/L	19.5		4	8	ug/L	4.21	K	2	4	ug/L	3.22	K	2	4	ug/L	4.95		2	4	ug/L	17.7		2	4	ug/L	4	U	4	8	ug/L	4.53	J	4	8	ug/L	4.7	K	2	4	ug/L
SW6020	7440-02-0	Nickel	D		30		ug/L	4	U	4	8	ug/L	NS					NS					4.81		2	4	ug/L	8.44		2	4	ug/L	4	U	4	8	ug/L	3.83	J	2	4	ug/L	NS				
SW6020	7440-22-4	Silver	T		7.1		ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L
SW6020	7440-22-4	Silver	D		7.1		ug/L	1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1.0	ug/L	NS				
SW6020	7440-28-0	Thallium	T		0.016	2.0	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**0.123**	J	0.1	0.2	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	**< 0.1**	U	0.1	0.2	ug/L
SW6020	7440-28-0	Thallium	D		0.016	2.0	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	NS					NS					**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	**< 0.1**	U	0.1	0.2	ug/L	NS				
SW6020	7440-36-0	Antimony	T		0.60	6.0	ug/L	**< 1**	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	0.5	U	0.5	1	ug/L
SW6020	7440-36-0	Antimony	D		0.60	6.0	ug/L	**< 1**	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	**< 1**	U	1	2	ug/L	0.5	U	0.5	1.0	ug/L	NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2.68**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.43**		0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	133		3	6	ug/L	94.7		1.5	3	ug/L	94.1		1.5	3	ug/L	65.7	L	1.5	3	ug/L	125		1.5	3	ug/L	59.9		3	6	ug/L	57.1		3	6	ug/L	57.2		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	90.2		3	6	ug/L	NS					NS					63.4		1.5	3	ug/L	92.6		1.5	3	ug/L	53.2		3	6	ug/L	55.4	J	1.5	3.0	ug/L	NS				
SW6020	7440-43-9	Cadmium	T		0.69	5.0	ug/L	0.6	UL	0.6	1.2	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.6	UL	0.6	1.2	ug/L	0.6	UL	0.6	1.2	ug/L	0.3	U	0.3	0.6	ug/L
SW6020	7440-43-9	Cadmium	D		0.69	5.0	ug/L	0.6	UL	0.6	1.2	ug/L	NS					NS					0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.6	UL	0.6	1.2	ug/L	0.3	U	0.3	0.6	ug/L	NS				
SW6020	7440-47-3	Chromium	T			100	ug/L	19.7		2	4	ug/L	3.28		1	2	ug/L	3.74		1	2	ug/L	3.14	L	1	2	ug/L	12.5		1	2	ug/L	4.22		2	4	ug/L	3.89	K	2	4	ug/L	4.83		1	2	ug/L
SW6020	7440-47-3	Chromium	D			100	ug/L	2.91	K	2	4	ug/L	NS					NS					2.72		1	2	ug/L	2.8		1	2	ug/L	2.99	K	2	4	ug/L	1.76	J	1	2	ug/L	NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**5.54**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**3.14**		0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**0.903**	J	0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS				
SW6020	7440-50-8	Copper	T		62	1300	ug/L	13.9		2	4	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1.15	J	1	2	ug/L	8.87		1	2	ug/L	2	U	2	4	ug/L	2	U	2	4	ug/L	1	U	1	2	ug/L
SW6020	7440-50-8	Copper	D		62	1300	ug/L	2	U	2	4	ug/L	NS					NS					1	U	1	2	ug/L	1	U	1	2	ug/L	2	U	2	4	ug/L	1	U	1	2	ug/L	NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1	U	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.726	K	0.5	1	ug/L	1.18		0.5	1	ug/L	1.06	J	1	2	ug/L	1.31	K	1	2	ug/L	0.775	L	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1	U	1	2	ug/L	NS					NS					0.7	J	0.5	1	ug/L	1.06		0.5	1	ug/L	1.11	J	1	2	ug/L	1.19	K	0.5	1.0	ug/L	NS				
SW7470A	7439-97-6	Mercury	T		0.063	2.0	ug/L	**0.157**	B	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L
SW7470A	7439-97-6	Mercury	D		0.063	2.0	ug/L	**0.126**	B	0.1	0.2	ug/L	NS					NS					**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L	**0.123**	B	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	NS				

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D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 4
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

							Location ID	40MW5					40MW5					40MW5					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
							Sample ID	40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512				
							Sample Date	6/12/2012					9/25/2012					9/25/2012					11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012				
							Sample Type	N					FD					N					N					N					FD					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	911		50	100	ug/L	140	J	50	100	ug/L	266	J	50	100	ug/L	242		50	100	ug/L	210		50	100	ug/L	209		50	100	ug/L	230		50	100	ug/L	467		50	100	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					NS					NS					NS					50	U	50	100	ug/L
SW6010B	7439-89-6	Iron, Ferrous	T		1100		ug/L	950		50	100	ug/L	123		50	100	ug/L	217		50	100	ug/L	323	L	50	100	ug/L	155		50	100	ug/L	238		50	100	ug/L	296		50	100	ug/L	393		50	100	ug/L
SW6010B	7439-89-6	Iron, Ferrous	D		1100		ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					NS					NS					NS					50	U	50	100	ug/L
SW6010B	7439-95-4	Magnesium	T				ug/L	34700		2500	5000	ug/L	32500		250	500	ug/L	32000		250	500	ug/L	32000		250	500	ug/L	36100		250	500	ug/L	33100		2500	5000	ug/L	34000		2500	5000	ug/L	33700		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	34600		2500	5000	ug/L	32100		250	500	ug/L	32300		250	500	ug/L	NS					NS					NS					NS					33500		250	500	ug/L
SW6010B	7440-09-7	Potassium	T				ug/L	1270		500	1000	ug/L	1260		500	1000	ug/L	1300		500	1000	ug/L	1000		500	1000	ug/L	1020		500	1000	ug/L	1050		500	1000	ug/L	1140		500	1000	ug/L	1220		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1240		500	1000	ug/L	1230		500	1000	ug/L	1230		500	1000	ug/L	NS					NS					NS					NS					1140		500	1000	ug/L
SW6010B	7440-23-5	Sodium	T				ug/L	5280		250	500	ug/L	5270		250	500	ug/L	5730		250	500	ug/L	5100		250	500	ug/L	4400		250	500	ug/L	4960		250	500	ug/L	5180		250	500	ug/L	5240		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	5170		250	500	ug/L	5420		250	500	ug/L	5430		250	500	ug/L	NS					NS					NS					NS					5180		250	500	ug/L
SW6010B	7440-41-7	Beryllium	T		1.6	4.0	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	UJ	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L
SW6010B	7440-41-7	Beryllium	D		1.6	4.0	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	NS					NS					NS					NS					1	U	1	2	ug/L
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**8.74**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	6.42	J	5	10	ug/L	**8.09**	J	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS					NS					NS					NS					5	U	5	10	ug/L
SW6010B	7440-66-6	Zinc	T		470		ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L
SW6010B	7440-66-6	Zinc	D		470		ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	NS					NS					NS					NS					10	U	10	20	ug/L
SW6010B	7440-70-2	Calcium	T				ug/L	89900		1000	2000	ug/L	84900		100	200	ug/L	86900		100	200	ug/L	84500		100	200	ug/L	98400	J	100	200	ug/L	85000		1000	2000	ug/L	85300		1000	2000	ug/L	88200		100	200	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	88400		1000	2000	ug/L	86100		100	200	ug/L	89200		100	200	ug/L	NS					NS					NS					NS					89400		100	200	ug/L
SW6020	7439-92-1	Lead	T			15	ug/L	0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.525	L	0.5	1	ug/L	0.733	J	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS					NS					NS					NS					0.5	U	0.5	1	ug/L
SW6020	7439-96-5	Manganese	T		32		ug/L	4.84	L	1	2	ug/L	4	B	1	2	ug/L	2.13	B	1	2	ug/L	2	U	2	4	ug/L	1.09	J	1	2	ug/L	1.82	J	1	2	ug/L	2.93	J	1	2	ug/L	2.41	B	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	1	UL	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	NS					NS					NS					NS					1.07	B	1	2	ug/L
SW6020	7440-02-0	Nickel	T		30		ug/L	5.52		2	4	ug/L	8.39		2	4	ug/L	7.3		2	4	ug/L	4	U	4	8	ug/L	2.92	K	2	4	ug/L	4.94		2	4	ug/L	4.89		2	4	ug/L	7.88		2	4	ug/L
SW6020	7440-02-0	Nickel	D		30		ug/L	4.89		2	4	ug/L	7.96		2	4	ug/L	8.21		2	4	ug/L	NS					NS					NS					NS					8.14		2	4	ug/L
SW6020	7440-22-4	Silver	T		7.1		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7440-22-4	Silver	D		7.1		ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS					NS					NS					NS					0.5	U	0.5	1	ug/L
SW6020	7440-28-0	Thallium	T		0.016	2.0	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L
SW6020	7440-28-0	Thallium	D		0.016	2.0	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	NS					NS					NS					NS					**< 0.1**	U	0.1	0.2	ug/L
SW6020	7440-36-0	Antimony	T		0.60	6.0	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	**< 1**	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7440-36-0	Antimony	D		0.60	6.0	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS					NS					NS					NS					0.5	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L
SW6020	7440-39-3	Barium	T		290	2000	ug/L	56.9	L	1.5	3	ug/L	58.1		1.5	3	ug/L	56.2		1.5	3	ug/L	49.9		3	6	ug/L	53.8		1.5	3	ug/L	48.8	L	1.5	3	ug/L	52.2	L	1.5	3	ug/L	51.4		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	54.3	L	1.5	3	ug/L	56.3		1.5	3	ug/L	58.7		1.5	3	ug/L	NS					NS					NS					NS					51.5		1.5	3	ug/L
SW6020	7440-43-9	Cadmium	T		0.69	5.0	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.6	UL	0.6	1.2	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L
SW6020	7440-43-9	Cadmium	D		0.69	5.0	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	NS					NS					NS					NS					0.3	U	0.3	0.6	ug/L
SW6020	7440-47-3	Chromium	T			100	ug/L	2.62	L	1	2	ug/L	2.6		1	2	ug/L	2.5		1	2	ug/L	3.92	K	2	4	ug/L	1.46	J	1	2	ug/L	1.43	L	1	2	ug/L	1.97	L	1	2	ug/L	2.86		1	2	ug/L
SW6020	7440-47-3	Chromium	D			100	ug/L	1.35	L	1	2	ug/L	2.3		1	2	ug/L	2.3		1	2	ug/L	NS					NS					NS					NS					2.59		1	2	ug/L
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L
SW6020	7440-50-8	Copper	T		62	1300	ug/L	1.98	J	1	2	ug/L	1.43	J	1	2	ug/L	2.59		1	2	ug/L	2	U	2	4	ug/L	1.14	J	1	2	ug/L	1.14	J	1	2	ug/L	2.01	J	1	2	ug/L	1.05	J	1	2	ug/L
SW6020	7440-50-8	Copper	D		62	1300	ug/L	1	U	1	2	ug/L	1.18	J	1	2	ug/L	1.24	J	1	2	ug/L	NS					NS					NS					NS					1	U	1	2	ug/L
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	0.784	K	0.5	1	ug/L	1.02		0.5	1	ug/L	0.845	J	0.5	1	ug/L	1.28	J	1	2	ug/L	0.5	U	0.5	1	ug/L	0.697	J	0.5	1	ug/L	1.24	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	0.847	K	0.5	1	ug/L	1.17		0.5	1	ug/L	1.05		0.5	1	ug/L	NS					NS					NS					NS					1.11		0.5	1	ug/L
SW7470A	7439-97-6	Mercury	T		0.063	2.0	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L
SW7470A	7439-97-6	Mercury	D		0.063	2.0	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L	NS					NS					NS					NS					**< 0.1**	UL	0.1	0.2	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
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U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 4
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

							Location ID	40MW7					40MW7					40MW7					40MW7				
							Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512				
							Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012				
							Sample Type	N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	8290		50	100	ug/L	344		50	100	ug/L	70.3	J	50	100	ug/L	**1730**		50	100	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L
SW6010B	7439-89-6	Iron, Ferrous	T		1100		ug/L	**7950**	L	50	100	ug/L	263		50	100	ug/L	149		50	100	ug/L	**1620**		50	100	ug/L
SW6010B	7439-89-6	Iron, Ferrous	D		1100		ug/L	73.1	J	50	100	ug/L	NS					NS					50	U	50	100	ug/L
SW6010B	7439-95-4	Magnesium	T				ug/L	61900		250	500	ug/L	36100		250	500	ug/L	36400		2500	5000	ug/L	41100		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	32500		250	500	ug/L	NS					NS					36100		250	500	ug/L
SW6010B	7440-09-7	Potassium	T				ug/L	4250		500	1000	ug/L	1720		500	1000	ug/L	1670		500	1000	ug/L	2130		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	2300		500	1000	ug/L	NS					NS					1770		500	1000	ug/L
SW6010B	7440-23-5	Sodium	T				ug/L	66700		250	500	ug/L	8540		250	500	ug/L	4030		250	500	ug/L	3510		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	78300		250	500	ug/L	NS					NS					3360		250	500	ug/L
SW6010B	7440-41-7	Beryllium	T		1.6	4.0	ug/L	1	UJ	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L
SW6010B	7440-41-7	Beryllium	D		1.6	4.0	ug/L	1	UJ	1	2	ug/L	NS					NS					1	U	1	2	ug/L
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**9.26**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L
SW6010B	7440-66-6	Zinc	T		470		ug/L	68.5		10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L	10	U	10	20	ug/L
SW6010B	7440-66-6	Zinc	D		470		ug/L	10	U	10	20	ug/L	NS					NS					10	U	10	20	ug/L
SW6010B	7440-70-2	Calcium	T				ug/L	190000		100	200	ug/L	80600	J	100	200	ug/L	77800		1000	2000	ug/L	101000		100	200	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	70600		100	200	ug/L	NS					NS					77700		100	200	ug/L
SW6020	7439-92-1	Lead	T			15	ug/L	9.37		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	1.61		0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L
SW6020	7439-96-5	Manganese	T		32		ug/L	**181**		2	4	ug/L	10.8		1	2	ug/L	6.47	L	1	2	ug/L	26.5		1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	23.9	B	2	4	ug/L	NS					NS					3.77	B	1	2	ug/L
SW6020	7440-02-0	Nickel	T		30		ug/L	13.8		4	8	ug/L	5.54	K	2	4	ug/L	4.82		2	4	ug/L	10.4		2	4	ug/L
SW6020	7440-02-0	Nickel	D		30		ug/L	4	U	4	8	ug/L	NS					NS					7.06		2	4	ug/L
SW6020	7440-22-4	Silver	T		7.1		ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7440-22-4	Silver	D		7.1		ug/L	1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L
SW6020	7440-28-0	Thallium	T		0.016	2.0	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L
SW6020	7440-28-0	Thallium	D		0.016	2.0	ug/L	**< 0.2**	UL	0.2	0.4	ug/L	NS					NS					**< 0.1**	U	0.1	0.2	ug/L
SW6020	7440-36-0	Antimony	T		0.60	6.0	ug/L	**< 1**	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7440-36-0	Antimony	D		0.60	6.0	ug/L	**< 1**	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2**	K	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**0.615**	J	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L
SW6020	7440-39-3	Barium	T		290	2000	ug/L	252		3	6	ug/L	145		1.5	3	ug/L	146	L	1.5	3	ug/L	172		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	75.8		3	6	ug/L	NS					NS					170		1.5	3	ug/L
SW6020	7440-43-9	Cadmium	T		0.69	5.0	ug/L	0.6	UL	0.6	1.2	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L	0.3	U	0.3	0.6	ug/L
SW6020	7440-43-9	Cadmium	D		0.69	5.0	ug/L	0.6	UL	0.6	1.2	ug/L	NS					NS					0.3	U	0.3	0.6	ug/L
SW6020	7440-47-3	Chromium	T			100	ug/L	10.2		2	4	ug/L	9.15		1	2	ug/L	2.13	L	1	2	ug/L	4.42		1	2	ug/L
SW6020	7440-47-3	Chromium	D			100	ug/L	4.04		2	4	ug/L	NS					NS					2.73		1	2	ug/L
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**3.04**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.02**		0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**0.825**	J	0.5	1	ug/L
SW6020	7440-50-8	Copper	T		62	1300	ug/L	5.01		2	4	ug/L	1.44	J	1	2	ug/L	1	U	1	2	ug/L	2.32		1	2	ug/L
SW6020	7440-50-8	Copper	D		62	1300	ug/L	2	U	2	4	ug/L	NS					NS					1	U	1	2	ug/L
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.86	K	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.652	K	0.5	1	ug/L	0.848	J	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1.81	K	1	2	ug/L	NS					NS					0.913	J	0.5	1	ug/L
SW7470A	7439-97-6	Mercury	T		0.063	2.0	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	U	0.1	0.2	ug/L	**< 0.1**	UL	0.1	0.2	ug/L
SW7470A	7439-97-6	Mercury	D		0.063	2.0	ug/L	**< 0.1**	U	0.1	0.2	ug/L	NS					NS					**< 0.1**	UL	0.1	0.2	ug/L

Notes:

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 5
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

					Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
					Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612				
					Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012				
					Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**9.67**	J	0.1	0.2	ug/L	**8.93**		0.1	0.2	ug/L	**8.88**		0.1	0.2	ug/L	**4.81**		0.1	0.2	ug/L	**8.75**		0.1	0.2	ug/L

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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 5
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

					Location ID	40MW5					40MW5					40MW5					40MW5					40MW5				
					Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512				
					Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012				
					Sample Type	FD					N					N					N					FD				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**1.55**	J	0.1	0.2	ug/L	**1.55**	J	0.1	0.2	ug/L	0.931		0.1	0.2	ug/L	0.986		0.1	0.2	ug/L	**1.81**		0.1	0.2	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
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UJ = Not detected. Quantitation limit may be inaccurate or imprecise
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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 5
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

					Location ID	40MW5					40MW6					40MW6					40MW6					40MW6				
					Sample ID	40MW5GW92512					40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212				
					Sample Date	9/25/2012					11/21/2011					3/7/2012					6/12/2012					6/12/2012				
					Sample Type	N					N					N					FD					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**1.71**		0.1	0.2	ug/L	0.885	J	0.1	0.2	ug/L	0.526		0.1	0.2	ug/L	0.635		0.1	0.2	ug/L	0.647		0.1	0.2	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
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K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 5
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

					Location ID	40MW6					40MW7					40MW7					40MW7					40MW7				
					Sample ID	40MW6GW92512					40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512				
					Sample Date	9/25/2012					11/20/2011					3/6/2012					6/12/2012					9/25/2012				
					Sample Type	N					N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	Int Qual	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**1.25**		0.1	0.2	ug/L	**4.5**	J	0.1	0.2	ug/L	**4.18**		0.1	0.2	ug/L	**3.69**		0.1	0.2	ug/L	**3.66**		0.1	0.2	ug/L

Notes:

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T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 6
November 2011 Screening Levels for Groundwater Pesticides Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012				
						Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8081A	72-54-8	4,4'-DDD	0.28			ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0253	J	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	72-55-9	4,4'-DDE	0.2			ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	50-29-3	4,4'-DDT	0.2	0.78		ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	309-00-2	Aldrin	0.00021	0.0024		ug/L	**< 0.0119**	UL	0.0119	0.0595	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	5103-71-9	alpha Chlordane				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	319-84-6	alpha-BHC	0.0062	7.3		ug/L	**< 0.0119**	UL	0.0119	0.0595	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	319-85-7	beta-BHC	0.022			ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	319-86-8	delta-BHC				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	60-57-1	Dieldrin	0.0015	0.028		ug/L	**< 0.0119**	UL	0.0119	0.0595	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	959-98-8	Endosulfan I				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	33213-65-9	Endosulfan II				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	1031-07-8	Endosulfan sulfate				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	72-20-8	Endrin		0.17	2	ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	7421-93-4	Endrin aldehyde				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	53494-70-5	Endrin ketone				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	5103-74-2	gamma Chlordane				ug/L	< 0.0119	UL	0.0119	0.0595	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	58-89-9	gamma-BHC (Lindane)	0.036	0.27	0.2	ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	76-44-8	Heptachlor	0.0018	0.092	0.4	ug/L	**< 0.0119**	UL	0.0119	0.0595	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	1024-57-3	Heptachlor epoxide	0.0033	0.0092	0.2	ug/L	**< 0.0119**	UL	0.0119	0.0595	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	72-43-5	Methoxychlor		2.7	40	ug/L	0.0119	UL	0.0119	0.0595	ug/L	0.01	U	0.01	0.05	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	8001-35-2	Toxaphene	0.013		3	ug/L	**< 0.357**	UL	0.357	1.19	ug/L	**< 0.3**	U	0.3	1	ug/L	**< 0.326**	U	0.326	1.09	ug/L	**< 0.33**	UL	0.33	1.1	ug/L	**< 0.316**	UL	0.316	1.05	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 6
November 2011 Screening Levels for Groundwater Pesticides Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40MW5					40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512				
						Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012				
						Sample Type	FD					N					N					N					FD				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8081A	72-54-8	4,4'-DDD	0.28			ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	U	0.0102	0.051	ug/L
SW8081A	72-55-9	4,4'-DDE	0.2			ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	U	0.0102	0.051	ug/L
SW8081A	50-29-3	4,4'-DDT	0.2	0.78		ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	U	0.0102	0.051	ug/L
SW8081A	309-00-2	Aldrin	0.00021	0.0024		ug/L	**< 0.0118**	U	0.0118	0.0588	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.0103**	U	0.0103	0.0515	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0102**	UJ	0.0102	0.051	ug/L
SW8081A	5103-71-9	alpha Chlordane				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	319-84-6	alpha-BHC	0.0062	7.3		ug/L	**< 0.0118**	U	0.0118	0.0588	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.0103**	U	0.0103	0.0515	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0102**	U	0.0102	0.051	ug/L
SW8081A	319-85-7	beta-BHC	0.022			ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	U	0.0102	0.051	ug/L
SW8081A	319-86-8	delta-BHC				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	60-57-1	Dieldrin	0.0015	0.028		ug/L	**< 0.0118**	U	0.0118	0.0588	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.0103**	U	0.0103	0.0515	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0102**	U	0.0102	0.051	ug/L
SW8081A	959-98-8	Endosulfan I				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	33213-65-9	Endosulfan II				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	1031-07-8	Endosulfan sulfate				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	72-20-8	Endrin		0.17	2	ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	U	0.0102	0.051	ug/L
SW8081A	7421-93-4	Endrin aldehyde				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	53494-70-5	Endrin ketone				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	5103-74-2	gamma Chlordane				ug/L	< 0.0118	U	0.0118	0.0588	ug/L	< 0.0109	U	0.0109	0.0543	ug/L	< 0.0103	U	0.0103	0.0515	ug/L	< 0.011	UL	0.011	0.0549	ug/L	< 0.0102	U	0.0102	0.051	ug/L
SW8081A	58-89-9	gamma-BHC (Lindane)	0.036	0.27	0.2	ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	UJ	0.0102	0.051	ug/L
SW8081A	76-44-8	Heptachlor	0.0018	0.092	0.4	ug/L	**< 0.0118**	U	0.0118	0.0588	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.0103**	U	0.0103	0.0515	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0102**	UJ	0.0102	0.051	ug/L
SW8081A	1024-57-3	Heptachlor epoxide	0.0033	0.0092	0.2	ug/L	**< 0.0118**	U	0.0118	0.0588	ug/L	**< 0.0109**	U	0.0109	0.0543	ug/L	**< 0.0103**	U	0.0103	0.0515	ug/L	**< 0.011**	UL	0.011	0.0549	ug/L	**< 0.0102**	U	0.0102	0.051	ug/L
SW8081A	72-43-5	Methoxychlor		2.7	40	ug/L	0.0118	U	0.0118	0.0588	ug/L	0.0109	U	0.0109	0.0543	ug/L	0.0103	U	0.0103	0.0515	ug/L	0.011	UL	0.011	0.0549	ug/L	0.0102	U	0.0102	0.051	ug/L
SW8081A	8001-35-2	Toxaphene	0.013		3	ug/L	**< 0.353**	U	0.353	1.18	ug/L	**< 0.326**	U	0.326	1.09	ug/L	**< 0.309**	U	0.309	1.03	ug/L	**< 0.33**	UL	0.33	1.1	ug/L	**< 0.306**	U	0.306	1.02	ug/L

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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
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Table 6
November 2011 Screening Levels for Groundwater Pesticides Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40MW5					40MW6					40MW6					40MW6					40MW6				
						Sample ID	40MW5GW92512					40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212				
						Sample Date	9/25/2012					11/21/2011					3/7/2012					6/12/2012					6/12/2012				
						Sample Type	N					N					N					FD					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8081A	72-54-8	4,4'-DDD	0.28			ug/L	0.0108	U	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	72-55-9	4,4'-DDE	0.2			ug/L	0.0108	U	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	50-29-3	4,4'-DDT	0.2	0.78		ug/L	0.0108	U	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	309-00-2	Aldrin	0.00021	0.0024		ug/L	**< 0.0108**	UJ	0.0108	0.0538	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.0115**	UL	0.0115	0.0575	ug/L	**< 0.0108**	UL	0.0108	0.0538	ug/L
SW8081A	5103-71-9	alpha Chlordane				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	319-84-6	alpha-BHC	0.0062	7.3		ug/L	**< 0.0108**	U	0.0108	0.0538	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.0115**	UL	0.0115	0.0575	ug/L	**< 0.0108**	UL	0.0108	0.0538	ug/L
SW8081A	319-85-7	beta-BHC	0.022			ug/L	0.0108	U	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	319-86-8	delta-BHC				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	60-57-1	Dieldrin	0.0015	0.028		ug/L	**< 0.0108**	U	0.0108	0.0538	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.0115**	UL	0.0115	0.0575	ug/L	**< 0.0108**	UL	0.0108	0.0538	ug/L
SW8081A	959-98-8	Endosulfan I				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	33213-65-9	Endosulfan II				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	1031-07-8	Endosulfan sulfate				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	72-20-8	Endrin		0.17	2	ug/L	0.0108	U	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	7421-93-4	Endrin aldehyde				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	53494-70-5	Endrin ketone				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	5103-74-2	gamma Chlordane				ug/L	< 0.0108	U	0.0108	0.0538	ug/L	< 0.01	U	0.01	0.05	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.0115	UL	0.0115	0.0575	ug/L	< 0.0108	UL	0.0108	0.0538	ug/L
SW8081A	58-89-9	gamma-BHC (Lindane)	0.036	0.27	0.2	ug/L	0.0108	UJ	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	76-44-8	Heptachlor	0.0018	0.092	0.4	ug/L	**< 0.0108**	UJ	0.0108	0.0538	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.0115**	UL	0.0115	0.0575	ug/L	**< 0.0108**	UL	0.0108	0.0538	ug/L
SW8081A	1024-57-3	Heptachlor epoxide	0.0033	0.0092	0.2	ug/L	**< 0.0108**	U	0.0108	0.0538	ug/L	**< 0.01**	U	0.01	0.05	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.0115**	UL	0.0115	0.0575	ug/L	**< 0.0108**	UL	0.0108	0.0538	ug/L
SW8081A	72-43-5	Methoxychlor		2.7	40	ug/L	0.0108	U	0.0108	0.0538	ug/L	0.01	U	0.01	0.05	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.0115	UL	0.0115	0.0575	ug/L	0.0108	UL	0.0108	0.0538	ug/L
SW8081A	8001-35-2	Toxaphene	0.013		3	ug/L	**< 0.323**	U	0.323	1.08	ug/L	**< 0.3**	U	0.3	1	ug/L	**< 0.313**	U	0.313	1.04	ug/L	**< 0.345**	UL	0.345	1.15	ug/L	**< 0.323**	UL	0.323	1.08	ug/L

Notes:

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Table 6
November 2011 Screening Levels for Groundwater Pesticides Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

						Location ID	40MW6					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW6GW92512					40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512				
						Sample Date	9/25/2012					11/20/2011					3/6/2012					6/12/2012					9/25/2012				
						Sample Type	N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8081A	72-54-8	4,4'-DDD	0.28			ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	72-55-9	4,4'-DDE	0.2			ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	50-29-3	4,4'-DDT	0.2	0.78		ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	309-00-2	Aldrin	0.00021	0.0024		ug/L	**< 0.0103**	UL	0.0103	0.0515	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.01**	UL	0.01	0.05	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	5103-71-9	alpha Chlordane				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	319-84-6	alpha-BHC	0.0062	7.3		ug/L	**< 0.0103**	UL	0.0103	0.0515	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.01**	UL	0.01	0.05	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	319-85-7	beta-BHC	0.022			ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	319-86-8	delta-BHC				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	60-57-1	Dieldrin	0.0015	0.028		ug/L	**< 0.0103**	UL	0.0103	0.0515	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.01**	UL	0.01	0.05	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	959-98-8	Endosulfan I				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	33213-65-9	Endosulfan II				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	1031-07-8	Endosulfan sulfate				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	72-20-8	Endrin		0.17	2	ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	7421-93-4	Endrin aldehyde				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	53494-70-5	Endrin ketone				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	5103-74-2	gamma Chlordane				ug/L	< 0.0103	UL	0.0103	0.0515	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L	< 0.0104	U	0.0104	0.0521	ug/L	< 0.01	UL	0.01	0.05	ug/L	< 0.0105	UL	0.0105	0.0526	ug/L
SW8081A	58-89-9	gamma-BHC (Lindane)	0.036	0.27	0.2	ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	76-44-8	Heptachlor	0.0018	0.092	0.4	ug/L	**< 0.0103**	UL	0.0103	0.0515	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.01**	UL	0.01	0.05	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	1024-57-3	Heptachlor epoxide	0.0033	0.0092	0.2	ug/L	**< 0.0103**	UL	0.0103	0.0515	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L	**< 0.0104**	U	0.0104	0.0521	ug/L	**< 0.01**	UL	0.01	0.05	ug/L	**< 0.0105**	UL	0.0105	0.0526	ug/L
SW8081A	72-43-5	Methoxychlor		2.7	40	ug/L	0.0103	UL	0.0103	0.0515	ug/L	0.0105	UL	0.0105	0.0526	ug/L	0.0104	U	0.0104	0.0521	ug/L	0.01	UL	0.01	0.05	ug/L	0.0105	UL	0.0105	0.0526	ug/L
SW8081A	8001-35-2	Toxaphene	0.013		3	ug/L	**< 0.309**	UL	0.309	1.03	ug/L	**< 0.316**	UL	0.316	1.05	ug/L	**< 0.313**	U	0.313	1.04	ug/L	**< 0.3**	UL	0.3	1	ug/L	**< 0.316**	UL	0.316	1.05	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 7
November 2011 Screening Levels for Groundwater Dioxin/Furan Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 1

							Location ID	40LFMW01						40MW5						40MW5						40MW6						40MW7					
							Sample ID	40LFMW01GW112111						40DUPGW112011						40MW5GW112011						40MW6GW112111						40MW7GW112011					
							Sample Date	11/21/2011						11/20/2011						11/20/2011						11/21/2011						11/20/2011					
							Sample Type	N						FD						N						N						N					
Method	CAS	Chemical	CSL	T-NCSL	MCL	TEF	Units	Result	TEF Adjusted Value	VQ	LOD	LOQ	DL Unit	Result	TEF Adjusted Value	VQ	LOD	LOQ	DL Unit	Result	TEF Adjusted Value	VQ	LOD	LOQ	DL Unit	Result	TEF Adjusted Value	VQ	LOD	LOQ	DL Unit	Result	TEF Adjusted Value	VQ	LOD	LOQ	DL Unit
SW8290	1746-01-6	2378-TCDD	0.52	1.6	30	1	pg/l	< 2.73	1.365	U	2.73	12.50	pg/l	< 1.66	0.830	U	1.66	10.60	pg/l	< 7.84	3.92	U	7.84	10.90	pg/l	< 2.08	1.04	U	2.08	11.10	pg/l	< 2.28	1.14	U	2.28	11.40	pg/l
SW8290	40321-76-4	12378-PeCDD				1	pg/l	< 2.41	1.205	U	2.41	31.30	pg/l	< 2.25	1.125	U	2.25	26.60	pg/l	< 9.85	4.925	U	9.85	27.20	pg/l	< 2.21	1.105	U	2.21	27.80	pg/l	< 1.61	0.805	U	1.61	28.40	pg/l
SW8290	39227-28-6	123478-HxCDD				0.1	pg/l	< 2.10	0.12	U	2.10	31.30	pg/l	< 1.31	0.066	U	1.31	26.60	pg/l	< 3.86	0.2195	U	3.86	27.20	pg/l	< 2.70	0.1535	U	2.70	27.80	pg/l	< 1.89	0.0945	U	1.89	28.40	pg/l
SW8290	57653-85-7	123678-HxCDD				0.1	pg/l	< 2.40	0.105	U	2.40	31.30	pg/l	< 1.49	0.075	U	1.49	26.60	pg/l	< 4.39	0.193	U	4.39	27.20	pg/l	< 3.07	0.135	U	3.07	27.80	pg/l	< 1.89	0.0945	U	1.89	28.40	pg/l
SW8290	19408-74-3	123789-HxCDD				0.1	pg/l	< 2.14	0.107	U	2.14	31.30	pg/l	< 1.33	0.067	U	1.33	26.60	pg/l	< 3.92	0.196	U	3.92	27.20	pg/l	< 2.74	0.137	U	2.74	27.80	pg/l	< 1.87	0.0935	U	1.87	28.40	pg/l
SW8290	35822-46-9	1234678-HpCDD				0.01	pg/l	6.17	0.0617	B	3.58	31.30	pg/l	< 1.81	0.0091	U	1.81	26.60	pg/l	< 4.78	0.0239	U	4.78	27.20	pg/l	< 2.83	0.01415	U	2.83	27.80	pg/l	< 2.36	0.0118	U	2.36	28.40	pg/l
SW8290	3268-87-9	OCDD				0.0003	pg/l	162	0.0486	J	7.47	62.50	pg/l	18.3	0.0055	B	4.37	53.20	pg/l	43.7	0.01311	B	9.77	54.30	pg/l	22.3	0.00669	B	6.67	55.60	pg/l	27.4	0.00822	B	6.70	56.80	pg/l
						Total:			**3.0123**				pg/l		**2.17604**				pg/l		**9.49051**				pg/l		**2.59134**				pg/l		**2.24752**				pg/l
SW8290	51207-31-9	2378-TCDF	5,800,000			0.1	pg/l	< 1.91	0.0955	U	1.91	12.50	pg/l	< 1.54	0.0770	U	1.54	10.60	pg/l	< 5.23	0.2615	U	5.23	10.90	pg/l	< 1.54	0.077	U	1.54	11.10	pg/l	< 1.59	0.0795	U	1.59	11.40	pg/l
SW8290	57117-31-4	12378-PeCDF				0.03	pg/l	< 1.69	0.02535	U	1.69	31.30	pg/l	< 1.27	0.0191	U	1.27	26.60	pg/l	< 5.76	0.0864	U	5.76	27.20	pg/l	< 1.02	0.0153	U	1.02	27.80	pg/l	< 0.983	0.014745	U	0.983	28.40	pg/l
SW8290	57117-41-6	23478-PeCDF				0.3	pg/l	< 1.79	0.2685	U	1.79	31.30	pg/l	< 1.35	0.2025	U	1.35	26.60	pg/l	< 6.12	0.918	U	6.12	27.20	pg/l	< 1.08	0.162	U	1.08	27.80	pg/l	< 1.03	0.1545	U	1.03	28.40	pg/l
SW8290	70648-26-9	123478-HxCDF				0.1	pg/l	< 1.22	0.0685	U	1.22	31.30	pg/l	< 1.06	0.0530	U	1.06	26.60	pg/l	< 2.39	0.134	U	2.39	27.20	pg/l	< 1.11	0.062	U	1.11	27.80	pg/l	< 1.33	0.0715	U	1.33	28.40	pg/l
SW8290	72918-21-9	123678-HxCDF				0.1	pg/l	< 1.64	0.061	U	1.64	31.30	pg/l	< 1.43	0.0715	U	1.43	26.60	pg/l	< 3.23	0.1195	U	3.23	27.20	pg/l	< 1.50	0.0555	U	1.50	27.80	pg/l	< 1.79	0.0665	U	1.79	28.40	pg/l
SW8290	57117-44-9	123789-HxCDF				0.1	pg/l	< 1.37	0.082	U	1.37	31.30	pg/l	< 1.19	0.0595	U	1.19	26.60	pg/l	< 2.68	0.1615	U	2.68	27.20	pg/l	< 1.24	0.075	U	1.24	27.80	pg/l	< 1.43	0.0895	U	1.43	28.40	pg/l
SW8290	60851-34-5	234678-HxCDF				0.1	pg/l	< 1.39	0.0695	U	1.39	31.30	pg/l	< 1.21	0.0605	U	1.21	26.60	pg/l	< 2.74	0.137	U	2.74	27.20	pg/l	< 1.27	0.0635	U	1.27	27.80	pg/l	< 1.51	0.0755	U	1.51	28.40	pg/l
SW8290	67562-39-4	1234678-HpCDF				0.01	pg/l	< 2.04	0.0102	U	2.04	31.30	pg/l	< 1.30	0.0065	U	1.30	26.60	pg/l	< 2.98	0.0149	U	2.98	27.20	pg/l	< 2.18	0.0109	U	2.18	27.80	pg/l	< 1.89	0.00945	U	1.89	28.40	pg/l
SW8290	55673-89-7	1234789-HpCDF				0.01	pg/l	< 2.75	0.01375	U	2.75	31.30	pg/l	< 1.75	0.0088	U	1.75	26.60	pg/l	< 4.03	0.02015	U	4.03	27.20	pg/l	< 2.94	0.0147	U	2.94	27.80	pg/l	< 2.39	0.01195	U	2.39	28.40	pg/l
SW8290	39001-02-0	OCDF				0.0003	pg/l	< 5.61	0.0008415	UJ	5.61	62.50	pg/l	< 4.09	0.0006	U	4.09	53.20	pg/l	< 8.46	0.001269	U	8.46	54.30	pg/l	< 6.61	0.0009915	UJ	6.61	55.60	pg/l	< 5.61	0.0008415	U	5.61	56.80	pg/l
						Total:			0.6951415				pg/l		0.55891				pg/l		1.854219				pg/l		0.5368915				pg/l		0.5739865				pg/l
SW8290		Total TEQ					pg/l		3.72				pg/l		2.74				pg/l		11.4				pg/l		3.13				pg/l		2.82				pg/l
SW8290	30402-14-3	TETRACHLORINATED DIBENZOFURANS, (TOTAL)					pg/l	8.50		B	1.91	12.50	pg/l	< 1.54		U	1.54	10.60	pg/l	< 5.23		U	5.23	10.90	pg/l	2.44		B	1.54	11.10	pg/l	< 1.59		U	1.59	11.40	pg/l
SW8290	37871-00-4	Total HpCDD					pg/l	6.17		J	3.58	31.30	pg/l	< 1.81		U	1.81	26.60	pg/l	< 4.78		U	4.78	27.20	pg/l	4.42		J	2.83	27.80	pg/l	< 2.36		U	2.36	28.40	pg/l
SW8290	38998-75-3	Total HpCDF					pg/l	< 2.04		U	2.04	31.30	pg/l	< 1.30		U	1.30	26.60	pg/l	< 2.98		U	2.98	27.20	pg/l	< 2.18		U	2.18	27.80	pg/l	< 1.89		U	1.89	28.40	pg/l
SW8290	34465-46-8	Total HxCDD					pg/l	< 2.10		U	2.10	31.30	pg/l	< 1.31		U	1.31	26.60	pg/l	< 3.86		U	3.86	27.20	pg/l	< 2.70		U	2.70	27.80	pg/l	< 1.89		U	1.89	28.40	pg/l
SW8290	55684-94-1	Total HxCDF					pg/l	< 1.22		U	1.22	31.30	pg/l	< 1.06		U	1.06	26.60	pg/l	< 2.39		U	2.39	27.20	pg/l	< 1.11		U	1.11	27.80	pg/l	< 1.33		U	1.33	28.40	pg/l
SW8290	36088-22-9	Total PeCDD					pg/l	< 2.41		U	2.41	31.30	pg/l	< 2.25		U	2.25	26.60	pg/l	< 9.85		U	9.85	27.20	pg/l	< 2.21		U	2.21	27.80	pg/l	< 1.61		U	1.61	28.40	pg/l
SW8290	30402-15-4	Total PeCDF					pg/l	< 1.79		U	1.79	31.30	pg/l	< 1.35		U	1.35	26.60	pg/l	< 6.12		U	6.12	27.20	pg/l	< 1.08		U	1.08	27.80	pg/l	< 1.03		U	1.03	28.40	pg/l
SW8290	41903-57-5	Total TCDD					pg/l	< 2.73		U	2.73	12.5	pg/l	< 1.66		U	1.66	10.6	pg/l	< 7.84		U	7.84	10.9	pg/l	< 2.08		U	2.08	11.1	pg/l	< 2.28		U	2.28	11.4	pg/l

Notes:

For dioxin/furan data, a toxicity equivalence factor (TEF) must first be applied to adjust the measured concentrations to a toxicity equivalent concentration

The following table contains the various dioxin-like toxicity equivalency factors for Dioxins and Furans (Van den Berg et al. 2006), which are the World Health Organization 2005 values.

CAS = Chemical Abstracts Service
pg/L = Picogram Per Liter
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012				
						Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0308	J	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40LFMW01					40LFMW01					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW61913					LFMW01GW61913					40DUPGW112011					40MW5GW112011					40MW5GW030712				
						Sample Date	6/19/2013					6/19/2013					11/20/2011					11/20/2011					3/7/2012				
						Sample Type	FD					N					FD					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.0258**	U	0.0258	0.0515	ug/L	**< 0.0263**	U	0.0263	0.0526	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L

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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40MW5					40MW5					40MW5					40MW5					40MW6				
						Sample ID	40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW6GW112111				
						Sample Date	6/12/2012					9/25/2012					9/25/2012					6/19/2013					11/21/2011				
						Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0287	U	0.0287	0.0575	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.026**	UJ	0.026	0.0521	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0287**	U	0.0287	0.0575	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0287	U	0.0287	0.0575	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0287	U	0.0287	0.0575	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0287	U	0.0287	0.0575	ug/L

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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40MW6					40MW6					40MW6					40MW6					40MW6				
						Sample ID	40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913				
						Sample Date	3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013				
						Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.211**	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**		0.0255	0.051	ug/L	**0.0793**	J	0.0281	0.0562	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0258**	U	0.0258	0.0515	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.261**	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	0.17	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0301		0.0255	0.051	ug/L	0.89	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L

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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40MW7					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913				
						Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013				
						Sample Type	N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0284**	U	0.0284	0.0568	ug/L	**< 0.025**	U	0.025	0.05	ug/L	**< 0.0275**	U	0.0275	0.0549	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0832	J	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L

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Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013				
						Sample Type	N					FD					N					N					N					FD					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L

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Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913				
						Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013				
						Sample Type	FD					N					N					N					FD					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L

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R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW7				
						Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW7GW112011				
						Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					11/20/2011				
						Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	R	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	U	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	4.38	L	2.5	10	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

						Location ID	40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913				
						Sample Date	3/6/2012					6/12/2012					9/25/2012					6/19/2013				
						Sample Type	N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

							Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
							Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913				
							Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013				
							Sample Type	N					FD					N					N					N					FD					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	***17900***		50	100	ug/L	112		50	100	ug/L	123		50	100	ug/L	74.8	J	50	100	ug/L	**9150**		50	100	ug/L	127	J	100	200	ug/L	145	J	100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L	92.9	J	50	100	ug/L	< 100	U	100	200	ug/L	100	U	100	200	ug/L
SW6010B	7439-89-6	Iron	T		1100		ug/L	**21800**	L	50	100	ug/L	87.5	J	50	100	ug/L	93	J	50	100	ug/L	120		50	100	ug/L	**8950**		50	100	ug/L	290		50	100	ug/L	311		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	102		50	100	ug/L	NS					NS					50	U	50	100	ug/L	74.1	J	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L
SW6010B	7439-95-4	Magnesium	T				ug/L	74800		250	500	ug/L	27800		250	500	ug/L	28100		250	500	ug/L	33800		2500	5000	ug/L	51100		250	500	ug/L	30300		250	500	ug/L	29200		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	33100		250	500	ug/L	NS					NS					32700		2500	5000	ug/L	35400		250	500	ug/L	29300		250	500	ug/L	29800		250	500	ug/L
SW6010B	7440-09-7	Potassium	T				ug/L	5920		500	1000	ug/L	943	J	500	1000	ug/L	885	J	500	1000	ug/L	1740		500	1000	ug/L	3700		500	1000	ug/L	1740		500	1000	ug/L	1660		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1620		500	1000	ug/L	NS					NS					1630		500	1000	ug/L	1690		500	1000	ug/L	1620		500	1000	ug/L	1690		500	1000	ug/L
SW6010B	7440-23-5	Sodium	T				ug/L	8230		250	500	ug/L	7860		250	500	ug/L	7690		250	500	ug/L	8450		250	500	ug/L	6640		250	500	ug/L	8410		250	500	ug/L	8180		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	8480		250	500	ug/L	NS					NS					8120		250	500	ug/L	7100		250	500	ug/L	8490		250	500	ug/L	8540		250	500	ug/L
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**32.5**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**18.1**		5	10	ug/L	**8.64**	J	5	10	ug/L	**9.29**	J	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L	5	U	5	10	ug/L	**10.9**		5	10	ug/L	**10.8**		5	10	ug/L
SW6010B	7440-70-2	Calcium	T				ug/L	142000		100	200	ug/L	71300	J	100	200	ug/L	71400	J	100	200	ug/L	82800		1000	2000	ug/L	105000		100	200	ug/L	75800		250	500	ug/L	75900		250	500	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81500		100	200	ug/L	NS					NS					82000		1000	2000	ug/L	85700		100	200	ug/L	78100		250	500	ug/L	77700		250	500	ug/L
SW6020	7439-92-1	Lead	T			15	ug/L	11		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	5.46		0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	< 1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-96-5	Manganese	T		32		ug/L	**125**		2	4	ug/L	1.25	J	1	2	ug/L	1.52	J	1	2	ug/L	2.18	L	1	2	ug/L	**52.6**		1	2	ug/L	2.48		1	2	ug/L	2.89		1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	3.95	B	2	4	ug/L	NS					NS					1	UL	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2.68**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.43**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-39-3	Barium	T		290	2000	ug/L	133		3	6	ug/L	94.7		1.5	3	ug/L	94.1		1.5	3	ug/L	65.7	L	1.5	3	ug/L	125		1.5	3	ug/L	61.9		1.5	3	ug/L	62.3		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	90.2		3	6	ug/L	NS					NS					63.4		1.5	3	ug/L	92.6		1.5	3	ug/L	61.4		1.5	3	ug/L	57.5		1.5	3	ug/L
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**5.54**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**3.14**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**0.903**	J	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1	U	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.726	K	0.5	1	ug/L	1.18		0.5	1	ug/L	0.676	J	0.5	1	ug/L	0.928	J	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1	U	1	2	ug/L	NS					NS					0.7	J	0.5	1	ug/L	1.06		0.5	1	ug/L	0.523	J	0.5	1	ug/L	1.71	J	0.5	1	ug/L

Notes:

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T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

							Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
							Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913				
							Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013				
							Sample Type	FD					N					N					N					FD					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	1540		50	100	ug/L	1890		50	100	ug/L	221		50	100	ug/L	911		50	100	ug/L	140	J	50	100	ug/L	266	J	50	100	ug/L	100	U	100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					50	U	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	**1580**	L	50	100	ug/L	**2040**	L	50	100	ug/L	156		50	100	ug/L	950		50	100	ug/L	123		50	100	ug/L	217		50	100	ug/L	137		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	82	J	50	100	ug/L	74.1	J	50	100	ug/L	NS					50	U	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	31300		250	500	ug/L	32500		250	500	ug/L	33500		250	500	ug/L	34700		2500	5000	ug/L	32500		250	500	ug/L	32000		250	500	ug/L	32500		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	29600		250	500	ug/L	29800		250	500	ug/L	NS					34600		2500	5000	ug/L	32100		250	500	ug/L	32300		250	500	ug/L	NS				
SW6010B	7440-09-7	Potassium	T				ug/L	1370		500	1000	ug/L	1370		500	1000	ug/L	1160		500	1000	ug/L	1270		500	1000	ug/L	1260		500	1000	ug/L	1300		500	1000	ug/L	1100		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1060		500	1000	ug/L	1080		500	1000	ug/L	NS					1240		500	1000	ug/L	1230		500	1000	ug/L	1230		500	1000	ug/L	NS				
SW6010B	7440-23-5	Sodium	T				ug/L	5480		250	500	ug/L	5220		250	500	ug/L	4790		250	500	ug/L	5280		250	500	ug/L	5270		250	500	ug/L	5730		250	500	ug/L	4590		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	5330		250	500	ug/L	5350		250	500	ug/L	NS					5170		250	500	ug/L	5420		250	500	ug/L	5430		250	500	ug/L	NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**8.74**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**10.5**		5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS					5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS				
SW6010B	7440-70-2	Calcium	T				ug/L	84800		100	200	ug/L	87200		100	200	ug/L	93400	J	100	200	ug/L	89900		1000	2000	ug/L	84900		100	200	ug/L	86900		100	200	ug/L	91600		250	500	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81700		100	200	ug/L	82800		100	200	ug/L	NS					88400		1000	2000	ug/L	86100		100	200	ug/L	89200		100	200	ug/L	NS				
SW6020	7439-92-1	Lead	T			15	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1.0	ug/L	NS					0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	7.67	B	2	4	ug/L	15.2	B	2	4	ug/L	1.11	J	1	2	ug/L	4.84	L	1	2	ug/L	4	B	1	2	ug/L	2.13	B	1	2	ug/L	1.8	J	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	2	U	2	4	ug/L	1	U	1	2	ug/L	NS					1	UL	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	59.9		3	6	ug/L	57.1		3	6	ug/L	57.2		1.5	3	ug/L	56.9	L	1.5	3	ug/L	58.1		1.5	3	ug/L	56.2		1.5	3	ug/L	56.9		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	53.2		3	6	ug/L	55.4	J	1.5	3.0	ug/L	NS					54.3	L	1.5	3	ug/L	56.3		1.5	3	ug/L	58.7		1.5	3	ug/L	NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.06	J	1	2	ug/L	1.31	K	1	2	ug/L	0.775	L	0.5	1	ug/L	0.784	K	0.5	1	ug/L	1.02		0.5	1	ug/L	0.845	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1.11	J	1	2	ug/L	1.19	K	0.5	1.0	ug/L	NS					0.847	K	0.5	1	ug/L	1.17		0.5	1	ug/L	1.05		0.5	1	ug/L	NS				

Notes:

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

							Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW7				
							Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW7GW112011				
							Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					11/20/2011				
							Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	242		50	100	ug/L	210		50	100	ug/L	209		50	100	ug/L	230		50	100	ug/L	467		50	100	ug/L	378		100	200	ug/L	**8290**		50	100	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	NS					NS					NS					NS					50	U	50	100	ug/L	NS					50	U	50	100	ug/L
SW6010B	7439-89-6	Iron	T		1100		ug/L	323	L	50	100	ug/L	155		50	100	ug/L	238		50	100	ug/L	296		50	100	ug/L	393		50	100	ug/L	478		50	100	ug/L	**7950**	L	50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	NS					NS					NS					NS					50	U	50	100	ug/L	NS					73.1	J	50	100	ug/L
SW6010B	7439-95-4	Magnesium	T				ug/L	32000		250	500	ug/L	36100		250	500	ug/L	33100		2500	5000	ug/L	34000		2500	5000	ug/L	33700		250	500	ug/L	33900		250	500	ug/L	61900		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	NS					NS					NS					NS					33500		250	500	ug/L	NS					32500		250	500	ug/L
SW6010B	7440-09-7	Potassium	T				ug/L	1000		500	1000	ug/L	1020		500	1000	ug/L	1050		500	1000	ug/L	1140		500	1000	ug/L	1220		500	1000	ug/L	1240		500	1000	ug/L	4250		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	NS					NS					NS					NS					1140		500	1000	ug/L	NS					2300		500	1000	ug/L
SW6010B	7440-23-5	Sodium	T				ug/L	5100		250	500	ug/L	4400		250	500	ug/L	4960		250	500	ug/L	5180		250	500	ug/L	5240		250	500	ug/L	4090		250	500	ug/L	66700		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	NS					NS					NS					NS					5180		250	500	ug/L	NS					78300		250	500	ug/L
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	6.42	J	5	10	ug/L	**8.09**	J	5	10	ug/L	5	U	5	10	ug/L	**10.9**		5	10	ug/L	**9.26**	J	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	NS					NS					NS					NS					5	U	5	10	ug/L	NS					5	U	5	10	ug/L
SW6010B	7440-70-2	Calcium	T				ug/L	84500		100	200	ug/L	98400	J	100	200	ug/L	85000		1000	2000	ug/L	85300		1000	2000	ug/L	88200		100	200	ug/L	89800		250	500	ug/L	190000		100	200	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	NS					NS					NS					NS					89400		100	200	ug/L	NS					70600		100	200	ug/L
SW6020	7439-92-1	Lead	T			15	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.525	L	0.5	1	ug/L	0.733	J	0.5	1	ug/L	0.569	J	0.5	1	ug/L	9.37		1	2	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	NS					NS					NS					NS					0.5	U	0.5	1	ug/L	NS					1	U	1	2	ug/L
SW6020	7439-96-5	Manganese	T		32		ug/L	2	U	2	4	ug/L	1.09	J	1	2	ug/L	1.82	J	1	2	ug/L	2.93	J	1	2	ug/L	2.41	B	1	2	ug/L	2.92		1	2	ug/L	**181**		2	4	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	NS					NS					NS					NS					1.07	B	1	2	ug/L	NS					23.9	B	2	4	ug/L
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**2**	K	1	2	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					**< 1**	U	1	2	ug/L
SW6020	7440-39-3	Barium	T		290	2000	ug/L	49.9		3	6	ug/L	53.8		1.5	3	ug/L	48.8	L	1.5	3	ug/L	52.2	L	1.5	3	ug/L	51.4		1.5	3	ug/L	49.1		1.5	3	ug/L	252		3	6	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	NS					NS					NS					NS					51.5		1.5	3	ug/L	NS					75.8		3	6	ug/L
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**3.04**		1	2	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					**< 1**	U	1	2	ug/L
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.28	J	1	2	ug/L	0.5	U	0.5	1	ug/L	0.697	J	0.5	1	ug/L	1.24	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L	1.06		0.5	1	ug/L	1.86	K	1	2	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	NS					NS					NS					NS					1.11		0.5	1	ug/L	NS					1.81	K	1	2	ug/L

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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

							Location ID	40MW7					40MW7					40MW7					40MW7				
							Sample ID	40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913				
							Sample Date	3/6/2012					6/12/2012					9/25/2012					6/19/2013				
							Sample Type	N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	344		50	100	ug/L	70.3	J	50	100	ug/L	**1730**		50	100	ug/L	100	U	100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	NS					NS					50	U	50	100	ug/L	NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	263		50	100	ug/L	149		50	100	ug/L	**1620**		50	100	ug/L	55.3	J	50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	NS					NS					50	U	50	100	ug/L	NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	36100		250	500	ug/L	36400		2500	5000	ug/L	41100		250	500	ug/L	32200		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	NS					NS					36100		250	500	ug/L	NS				
SW6010B	7440-09-7	Potassium	T				ug/L	1720		500	1000	ug/L	1670		500	1000	ug/L	2130		500	1000	ug/L	1550		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	NS					NS					1770		500	1000	ug/L	NS				
SW6010B	7440-23-5	Sodium	T				ug/L	8540		250	500	ug/L	4030		250	500	ug/L	3510		250	500	ug/L	3990		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	NS					NS					3360		250	500	ug/L	NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**9.8**	J	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	NS					NS					5	U	5	10	ug/L	NS				
SW6010B	7440-70-2	Calcium	T				ug/L	80600	J	100	200	ug/L	77800		1000	2000	ug/L	101000		100	200	ug/L	71300		250	500	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	NS					NS					77700		100	200	ug/L	NS				
SW6020	7439-92-1	Lead	T			15	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	1.61		0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	NS					NS					0.5	U	0.5	1	ug/L	NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	10.8		1	2	ug/L	6.47	L	1	2	ug/L	26.5		1	2	ug/L	1.76	J	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	NS					NS					3.77	B	1	2	ug/L	NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**0.615**	J	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	145		1.5	3	ug/L	146	L	1.5	3	ug/L	172		1.5	3	ug/L	130		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	NS					NS					170		1.5	3	ug/L	NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.02**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	NS					NS					**0.825**	J	0.5	1	ug/L	NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	0.5	UL	0.5	1	ug/L	0.652	K	0.5	1	ug/L	0.848	J	0.5	1	ug/L	0.678	J	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	NS					NS					0.913	J	0.5	1	ug/L	NS				

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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

					Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					
					Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913				
					Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013				
					Sample Type	N					FD					N					N					N					FD					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	Int Qual	VQ	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**9.67**	J	0.1	0.2	ug/L	**8.93**		0.1	0.2	ug/L	**8.88**		0.1	0.2	ug/L	**4.81**		0.1	0.2	ug/L	**8.75**		0.1	0.2	ug/L	**4.44**		0.2	0.4	ug/L	**4.38**		0.2	0.4	ug/L

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Table 4
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SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

					Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
					Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913				
					Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013				
					Sample Type	FD					N					N					N					FD					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**1.55**	J	0.1	0.2	ug/L	**1.55**	J	0.1	0.2	ug/L	0.931		0.1	0.2	ug/L	0.986		0.1	0.2	ug/L	**1.81**		0.1	0.2	ug/L	**1.71**		0.1	0.2	ug/L	0.85		0.1	0.2	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

					Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW7				
					Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW7GW112011				
					Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					11/20/2011				
					Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	0.885	J	0.1	0.2	ug/L	0.526		0.1	0.2	ug/L	0.635		0.1	0.2	ug/L	0.647		0.1	0.2	ug/L	**1.25**		0.1	0.2	ug/L	0.535		0.1	0.2	ug/L	**4.5**	J	0.1	0.2	ug/L

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CSL = Carcinogenic Screening Level
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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
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Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 2

					Location ID	40MW7					40MW7					40MW7					40MW7				
					Sample ID	40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913				
					Sample Date	3/6/2012					6/12/2012					9/25/2012					6/19/2013				
					Sample Type	N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	Int Qual	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**4.18**		0.1	0.2	ug/L	**3.69**		0.1	0.2	ug/L	**3.66**		0.1	0.2	ug/L	**4.1**		0.1	0.2	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The asscociated number indicates the approximate sample concentration
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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913					LFMW01GW32714				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013					3/27/2014				
						Sample Type	N					FD					N					N					N					FD					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.0258**	U	0.0258	0.0515	ug/L	**< 0.025**	U	0.025	0.05	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.025	U	0.025	0.05	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0281	U	0.0281	0.0562	ug/L	0.026	U	0.026	0.0521	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0308	J	0.0281	0.0562	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	U	0.026	0.0521	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.025	U	0.025	0.05	ug/L

Notes:

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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW5GW32714					40DUPGW32714				
						Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013					3/27/2014					3/27/2014				
						Sample Type	FD					N					N					N					FD					N					N					N					FD				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.026	U	0.026	0.0521	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0263**	U	0.0263	0.0526	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.026**	UJ	0.026	0.0521	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.026**	U	0.026	0.0521	ug/L	**< 0.026**	U	0.026	0.0521	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	**< 0.0338**	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.026	U	0.026	0.0521	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.026	U	0.026	0.0521	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0263	U	0.0263	0.0526	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255	U	0.0255	0.051	ug/L	0.026	UJ	0.026	0.0521	ug/L	0.0255	U	0.0255	0.051	ug/L	0.0338	U	0.0338	0.0676	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.026	U	0.026	0.0521	ug/L	0.026	U	0.026	0.0521	ug/L

Notes:

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CSL = Carcinogenic Screening Level
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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
						Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714				
						Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
						Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.211**	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0287**	U	0.0287	0.0575	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0255**		0.0255	0.051	ug/L	**0.0793**	J	0.0281	0.0562	ug/L	**< 0.0281**	U	0.0281	0.0562	ug/L	**< 0.0258**	U	0.0258	0.0515	ug/L	**< 0.026**	U	0.026	0.0521	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	**0.261**	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0255		0.0255	0.051	ug/L	0.17	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0287	U	0.0287	0.0575	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0301		0.0255	0.051	ug/L	0.89	J	0.0281	0.0562	ug/L	0.0281	U	0.0281	0.0562	ug/L	0.0258	U	0.0258	0.0515	ug/L	0.026	U	0.026	0.0521	ug/L

Notes:

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Table 1
November 2011 Screening Levels for Groundwater SVOC PAH Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714				
						Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
						Sample Type	N					N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8270C PAHL	56-55-3	Benzo(a)anthracene	0.029			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	50-32-8	Benzo(a)pyrene	0.0029		0.20	ug/L	**< 0.0255**	U	0.0255	0.051	ug/L	**< 0.0269**	U	0.0269	0.0538	ug/L	**< 0.0284**	U	0.0284	0.0568	ug/L	**< 0.025**	U	0.025	0.05	ug/L	**< 0.0275**	U	0.0275	0.0549	ug/L	**< 0.026**	U	0.026	0.0521	ug/L
SW8270C PAHL	205-99-2	Benzo(b)fluoranthene	0.029			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	207-08-9	Benzo(k)fluoranthene	0.29			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0284	U	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L	0.026	U	0.026	0.0521	ug/L
SW8270C PAHL	218-01-9	Chrysene	2.9			ug/L	0.0255	U	0.0255	0.051	ug/L	0.0269	U	0.0269	0.0538	ug/L	0.0832	J	0.0284	0.0568	ug/L	0.025	U	0.025	0.05	ug/L	0.0275	U	0.0275	0.0549	ug/L	0.026	U	0.026	0.0521	ug/L

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Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913					LFMW01GW32714				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013					3/27/2014				
						Sample Type	N					FD					N					N					N					FD					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

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Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW5GW32714					40DUPGW32714				
						Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013					3/27/2014					3/27/2014				
						Sample Type	FD					N					N					N					FD					N					N					N					FD				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

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Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
						Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714				
						Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
						Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	U	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

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Table 2
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

						Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714				
						Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
						Sample Type	N					N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	4.38	L	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

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MCL = Maximum Contaminant Level
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Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

							Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
							Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913					LFMW01GW32714				
							Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013					3/27/2014				
							Sample Type	N					FD					N					N					N					FD					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	***17900***		50	100	ug/L	112		50	100	ug/L	123		50	100	ug/L	74.8	J	50	100	ug/L	**9150**		50	100	ug/L	127	J	100	200	ug/L	145	J	100	200	ug/L	124	J	100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L	92.9	J	50	100	ug/L	< 100	U	100	200	ug/L	100	U	100	200	ug/L	NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	**21800**	L	50	100	ug/L	87.5	J	50	100	ug/L	93	J	50	100	ug/L	120		50	100	ug/L	**8950**		50	100	ug/L	290		50	100	ug/L	311		50	100	ug/L	172	J	50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	102		50	100	ug/L	NS					NS					50	U	50	100	ug/L	74.1	J	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	74800		250	500	ug/L	27800		250	500	ug/L	28100		250	500	ug/L	33800		2500	5000	ug/L	51100		250	500	ug/L	30300		250	500	ug/L	29200		250	500	ug/L	34600		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	33100		250	500	ug/L	NS					NS					32700		2500	5000	ug/L	35400		250	500	ug/L	29300		250	500	ug/L	29800		250	500	ug/L	NS				
SW6010B	7440-09-7	Potassium	T				ug/L	5920		500	1000	ug/L	943	J	500	1000	ug/L	885	J	500	1000	ug/L	1740		500	1000	ug/L	3700		500	1000	ug/L	1740		500	1000	ug/L	1660		500	1000	ug/L	1730		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1620		500	1000	ug/L	NS					NS					1630		500	1000	ug/L	1690		500	1000	ug/L	1620		500	1000	ug/L	1690		500	1000	ug/L	NS				
SW6010B	7440-23-5	Sodium	T				ug/L	8230		250	500	ug/L	7860		250	500	ug/L	7690		250	500	ug/L	8450		250	500	ug/L	6640		250	500	ug/L	8410		250	500	ug/L	8180		250	500	ug/L	5260		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	8480		250	500	ug/L	NS					NS					8120		250	500	ug/L	7100		250	500	ug/L	8490		250	500	ug/L	8540		250	500	ug/L	NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**32.5**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**18.1**		5	10	ug/L	**8.64**	J	5	10	ug/L	**9.29**	J	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L	5	U	5	10	ug/L	**10.9**		5	10	ug/L	**10.8**		5	10	ug/L	NS				
SW6010B	7440-70-2	Calcium	T				ug/L	142000		100	200	ug/L	71300	J	100	200	ug/L	71400	J	100	200	ug/L	82800		1000	2000	ug/L	105000		250	500	ug/L	75800		250	500	ug/L	75900		250	500	ug/L	92400		2500	5000	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81500		100	200	ug/L	NS					NS					82000		1000	2000	ug/L	85700		250	500	ug/L	78100		100	200	ug/L	77700		250	500	ug/L	NS				
SW6020	7439-92-1	Lead	T			15	ug/L	11		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	5.46		0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	< 1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	**125**		2	4	ug/L	1.25	J	1	2	ug/L	1.52	J	1	2	ug/L	2.18	L	1	2	ug/L	**52.6**		1	2	ug/L	2.48		1	2	ug/L	2.89		1	2	ug/L	2.75	B	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	3.95	B	2	4	ug/L	NS					NS					1	UL	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2.68**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.43**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	133		3	6	ug/L	94.7		1.5	3	ug/L	94.1		1.5	3	ug/L	65.7	L	1.5	3	ug/L	125		1.5	3	ug/L	61.9		1.5	3	ug/L	62.3		1.5	3	ug/L	69.8		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	90.2		3	6	ug/L	NS					NS					63.4		1.5	3	ug/L	92.6		1.5	3	ug/L	61.4		1.5	3	ug/L	57.5		1.5	3	ug/L	NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**5.54**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**3.14**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**0.903**	J	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1	U	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.726	K	0.5	1	ug/L	1.18		0.5	1	ug/L	0.676	J	0.5	1	ug/L	0.928	J	0.5	1	ug/L	1.49		0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1	U	1	2	ug/L	NS					NS					0.7	J	0.5	1	ug/L	1.06		0.5	1	ug/L	0.523	J	0.5	1	ug/L	1.71	J	0.5	1	ug/L	NS				

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The associated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

							Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
							Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW5GW32714					40DUPGW32714				
							Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013					3/27/2014					3/27/2014				
							Sample Type	FD					N					N					N					FD					N					N					N					FD				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	1540		50	100	ug/L	1890		50	100	ug/L	221		50	100	ug/L	911		50	100	ug/L	140	J	50	100	ug/L	266	J	50	100	ug/L	100	U	100	200	ug/L	169	J	100	200	ug/L	366		100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					50	U	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	**1580**	L	50	100	ug/L	**2040**	L	50	100	ug/L	156		50	100	ug/L	950		50	100	ug/L	123		50	100	ug/L	217		50	100	ug/L	137		50	100	ug/L	125	J	50	100	ug/L	339	J	50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	82	J	50	100	ug/L	74.1	J	50	100	ug/L	NS					50	U	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	31300		250	500	ug/L	32500		250	500	ug/L	33500		250	500	ug/L	34700		2500	5000	ug/L	32500		250	500	ug/L	32000		250	500	ug/L	32500		250	500	ug/L	19000		250	500	ug/L	19500		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	29600		250	500	ug/L	29800		250	500	ug/L	NS					34600		2500	5000	ug/L	32100		250	500	ug/L	32300		250	500	ug/L	NS					NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	1370		500	1000	ug/L	1370		500	1000	ug/L	1160		500	1000	ug/L	1270		500	1000	ug/L	1260		500	1000	ug/L	1300		500	1000	ug/L	1100		500	1000	ug/L	946	J	500	1000	ug/L	1020		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1060		500	1000	ug/L	1080		500	1000	ug/L	NS					1240		500	1000	ug/L	1230		500	1000	ug/L	1230		500	1000	ug/L	NS					NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	5480		250	500	ug/L	5220		250	500	ug/L	4790		250	500	ug/L	5280		250	500	ug/L	5270		250	500	ug/L	5730		250	500	ug/L	4590		250	500	ug/L	5370		250	500	ug/L	5640		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	5330		250	500	ug/L	5350		250	500	ug/L	NS					5170		250	500	ug/L	5420		250	500	ug/L	5430		250	500	ug/L	NS					NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**8.74**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**10.5**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS					5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS					NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	84800		100	200	ug/L	87200		100	200	ug/L	93400	J	100	200	ug/L	89900		1000	2000	ug/L	84900		100	200	ug/L	86900		100	200	ug/L	91600		250	500	ug/L	68300		2500	5000	ug/L	72700		2500	5000	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81700		100	200	ug/L	82800		100	200	ug/L	NS					88400		1000	2000	ug/L	86100		100	200	ug/L	89200		100	200	ug/L	NS					NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1.0	ug/L	NS					0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	7.67	B	2	4	ug/L	15.2	B	2	4	ug/L	1.11	J	1	2	ug/L	4.84	L	1	2	ug/L	4	B	1	2	ug/L	2.13	B	1	2	ug/L	1.8	J	1	2	ug/L	1.06	B	1	2	ug/L	1.57	B	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	2	U	2	4	ug/L	1	U	1	2	ug/L	NS					1	UL	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	NS					NS					NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	59.9		3	6	ug/L	57.1		3	6	ug/L	57.2		1.5	3	ug/L	56.9	L	1.5	3	ug/L	58.1		1.5	3	ug/L	56.2		1.5	3	ug/L	56.9		1.5	3	ug/L	34.1		1.5	3	ug/L	33.2		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	53.2		3	6	ug/L	55.4	J	1.5	3.0	ug/L	NS					54.3	L	1.5	3	ug/L	56.3		1.5	3	ug/L	58.7		1.5	3	ug/L	NS					NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.06	J	1	2	ug/L	1.31	K	1	2	ug/L	0.775	L	0.5	1	ug/L	0.784	K	0.5	1	ug/L	1.02		0.5	1	ug/L	0.845	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1.11	J	1	2	ug/L	1.19	K	0.5	1.0	ug/L	NS					0.847	K	0.5	1	ug/L	1.17		0.5	1	ug/L	1.05		0.5	1	ug/L	NS					NS					NS				

Notes:

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T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The associated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidity was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

							Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
							Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714				
							Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
							Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	242		50	100	ug/L	210		50	100	ug/L	209		50	100	ug/L	230		50	100	ug/L	467		50	100	ug/L	378		100	200	ug/L	288		100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	NS					NS					NS					NS					50	U	50	100	ug/L	NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	323	L	50	100	ug/L	155		50	100	ug/L	238		50	100	ug/L	296		50	100	ug/L	393		50	100	ug/L	478		50	100	ug/L	292	J	50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	NS					NS					NS					NS					50	U	50	100	ug/L	NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	32000		250	500	ug/L	36100		250	500	ug/L	33100		2500	5000	ug/L	34000		2500	5000	ug/L	33700		250	500	ug/L	33900		250	500	ug/L	7560		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	NS					NS					NS					NS					33500		250	500	ug/L	NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	1000		500	1000	ug/L	1020		500	1000	ug/L	1050		500	1000	ug/L	1140		500	1000	ug/L	1220		500	1000	ug/L	1240		500	1000	ug/L	738	J	500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	NS					NS					NS					NS					1140		500	1000	ug/L	NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	5100		250	500	ug/L	4400		250	500	ug/L	4960		250	500	ug/L	5180		250	500	ug/L	5240		250	500	ug/L	4090		250	500	ug/L	7740	B	250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	NS					NS					NS					NS					5180		250	500	ug/L	NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	6.42	J	5	10	ug/L	**8.09**	J	5	10	ug/L	5	U	5	10	ug/L	**10.9**		5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	NS					NS					NS					NS					5	U	5	10	ug/L	NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	84500		100	200	ug/L	98400	J	100	200	ug/L	85000		1000	2000	ug/L	85300		1000	2000	ug/L	88200		100	200	ug/L	89800		250	500	ug/L	23500		250	500	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	NS					NS					NS					NS					89400		100	200	ug/L	NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.525	L	0.5	1	ug/L	0.733	J	0.5	1	ug/L	0.569	J	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	NS					NS					NS					NS					0.5	U	0.5	1	ug/L	NS					NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	2	U	2	4	ug/L	1.09	J	1	2	ug/L	1.82	J	1	2	ug/L	2.93	J	1	2	ug/L	2.41	B	1	2	ug/L	2.92		1	2	ug/L	1.66	B	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	NS					NS					NS					NS					1.07	B	1	2	ug/L	NS					NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	49.9		3	6	ug/L	53.8		1.5	3	ug/L	48.8	L	1.5	3	ug/L	52.2	L	1.5	3	ug/L	51.4		1.5	3	ug/L	49.1		1.5	3	ug/L	12.7		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	NS					NS					NS					NS					51.5		1.5	3	ug/L	NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.28	J	1	2	ug/L	0.5	U	0.5	1	ug/L	0.697	J	0.5	1	ug/L	1.24	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L	1.06		0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	NS					NS					NS					NS					1.11		0.5	1	ug/L	NS					NS				

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The associated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidity was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

							Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7				
							Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714				
							Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
							Sample Type	N					N					N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	**8290**		50	100	ug/L	344		50	100	ug/L	70.3	J	50	100	ug/L	**1730**		50	100	ug/L	100	U	100	200	ug/L	100	U	100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L	NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	**7950**	L	50	100	ug/L	263		50	100	ug/L	149		50	100	ug/L	**1620**		50	100	ug/L	55.3	J	50	100	ug/L	213	J	50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	73.1	J	50	100	ug/L	NS					NS					50	U	50	100	ug/L	NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	61900		250	500	ug/L	36100		250	500	ug/L	36400		2500	5000	ug/L	41100		250	500	ug/L	32200		250	500	ug/L	32600		2500	5000	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	32500		250	500	ug/L	NS					NS					36100		250	500	ug/L	NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	4250		500	1000	ug/L	1720		500	1000	ug/L	1670		500	1000	ug/L	2130		500	1000	ug/L	1550		500	1000	ug/L	1570		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	2300		500	1000	ug/L	NS					NS					1770		500	1000	ug/L	NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	66700		250	500	ug/L	8540		250	500	ug/L	4030		250	500	ug/L	3510		250	500	ug/L	3990		250	500	ug/L	3660		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	78300		250	500	ug/L	NS					NS					3360		250	500	ug/L	NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**9.26**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**9.8**	J	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L	NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	190000		100	200	ug/L	80600	J	100	200	ug/L	77800		1000	2000	ug/L	101000		100	200	ug/L	71300		250	500	ug/L	81500		2500	5000	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	70600		100	200	ug/L	NS					NS					77700		100	200	ug/L	NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	9.37		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	1.61		0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	NS					NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	**181**		2	4	ug/L	10.8		1	2	ug/L	6.47	L	1	2	ug/L	26.5		1	2	ug/L	1.76	J	1	2	ug/L	1.88	B	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	23.9	B	2	4	ug/L	NS					NS					3.77	B	1	2	ug/L	NS					NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2**	K	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**0.615**	J	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	252		3	6	ug/L	145		1.5	3	ug/L	146	L	1.5	3	ug/L	172		1.5	3	ug/L	130		1.5	3	ug/L	118		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	75.8		3	6	ug/L	NS					NS					170		1.5	3	ug/L	NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**3.04**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.02**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	**U**	**0.5**	**1**	**ug/L**
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**0.825**	J	0.5	1	ug/L	NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.86	K	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.652	K	0.5	1	ug/L	0.848	J	0.5	1	ug/L	0.678	J	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1.81	K	1	2	ug/L	NS					NS					0.913	J	0.5	1	ug/L	NS					NS				

Notes:

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
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J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.
NS=Not Sampled because Turbidity was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

					Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
					Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913					LFMW01GW32714				
					Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013					3/27/2014				
					Sample Type	N					FD					N					N					N					FD					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	Int Qual	VQ	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**9.67**	J	0.1	0.2	ug/L	**8.93**		0.1	0.2	ug/L	**8.88**		0.1	0.2	ug/L	**4.81**		0.1	0.2	ug/L	**8.75**		0.1	0.2	ug/L	**4.44**		0.2	0.4	ug/L	**4.38**			0.2	0.4	ug/L	**7.47**		0.1	0.2	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

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J = Analyte present. Reported value may or may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
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UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

					Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
					Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW5GW32714				
					Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013					3/27/2014				
					Sample Type	FD					N					N					N					FD					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**1.55**	J	0.1	0.2	ug/L	**1.55**	J	0.1	0.2	ug/L	0.931		0.1	0.2	ug/L	0.986		0.1	0.2	ug/L	**1.81**		0.1	0.2	ug/L	**1.71**		0.1	0.2	ug/L	0.85		0.1	0.2	ug/L	0.721		0.1	0.2	ug/L

Notes:

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentration
B = Not detected substantially above the level reported in laboratory or field blanks.
R = Unusable result. Analyte may or may not be present in the sample.
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L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

					Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
					Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714				
					Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
					Sample Type	N					N					FD					N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	0.885	J	0.1	0.2	ug/L	0.526		0.1	0.2	ug/L	0.635		0.1	0.2	ug/L	0.647		0.1	0.2	ug/L	**1.25**		0.1	0.2	ug/L	0.535		0.1	0.2	ug/L	0.506		0.1	0.2	ug/L

Notes:

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CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

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Table 4
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 3

					Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7				
					Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714				
					Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014				
					Sample Type	N					N					N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	Int Qual	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**4.5**	J	0.1	0.2	ug/L	**4.18**		0.1	0.2	ug/L	**3.69**		0.1	0.2	ug/L	**3.66**		0.1	0.2	ug/L	**4.1**		0.1	0.2	ug/L	**3.74**		0.1	0.2	ug/L

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Level
VQ = Validation Qualifier
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Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

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L = Analyte present. Reported value may be biased low. Actual value is expected to be higher
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported.

Table 1
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612				
						Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012				
						Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L

						Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01				
						Sample ID	40DUPGW61913					LFMW01GW61913					LFMW01GW32714					LFMW01GW12214			
						Sample Date	6/19/2013					6/19/2013					3/27/2014					12/2/2014			
						Sample Type	FD					N					N					N			
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	U	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

Notes:

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T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
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DL = Detection Limit
N = Normal
FD = Field Duplicate
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Table 1
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

						Location ID	40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212				
						Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012				
						Sample Type	FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L

						Location ID	40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW5GW32714				
						Sample Date	9/25/2012					9/25/2012					6/19/2013					3/27/2014				
						Sample Type	FD					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

						Location ID	40MW5					40MW5					40MW5					40MW5				
						Sample ID	40DUPGW32714					40MW5GW12214					40DUPGW12214									
						Sample Date	3/27/2014					12/2/2014					12/2/2014									
						Sample Type	FD					N					FD									
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit					
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L					
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L					

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The assocoiated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Table 1
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

						Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
						Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714					40MW6GW12214				
						Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014				
						Sample Type	N					N					FD					N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	2.5	U	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	U	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
 ### = Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The asscociated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Table 1
November 2011 Screening Levels for Groundwater VOC Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

						Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7					40MW7				
						Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714					40MW7GW12214				
						Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014				
						Sample Type	N					N					N					N					N					N					N				
Method	CAS	Chemical	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW8260B	110-75-8	2-Chloroethyl vinyl ether				ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	R	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L	< 2	U	2	10	ug/L
SW8260B	67-64-1	Acetone		1200		ug/L	4.38	L	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	R	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L	2.5	UJ	2.5	10	ug/L

Notes:
CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Level
T-NCSL = Adjusted Noncarcinogenic Screening Level
MCL = Maximum Contaminant Level
_###_ = Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The associated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample.
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Table 2
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

							Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
							Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612					40DUPGW61913					LFMW01GW61913					LFMW01GW32714					LFMW01GW12214				
							Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012					6/19/2013					6/19/2013					3/27/2014					12/2/2014				
							Sample Type	N					FD					N					N					N					FD					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	***17900***		50	100	ug/L	112		50	100	ug/L	123		50	100	ug/L	74.8	J	50	100	ug/L	**9150**		50	100	ug/L	127	J	100	200	ug/L	145	J	100	200	ug/L	124	J	100	200	ug/L	526		100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L	92.9	J	50	100	ug/L	< 100	U	100	200	ug/L	100	U	100	200	ug/L	NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	**21800**	L	50	100	ug/L	87.5	J	50	100	ug/L	93	J	50	100	ug/L	120		50	100	ug/L	**8950**		50	100	ug/L	290		50	100	ug/L	311		50	100	ug/L	172	J	50	100	ug/L	527		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	102		50	100	ug/L	NS					NS					50	U	50	100	ug/L	74.1	J	50	100	ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	74800		250	500	ug/L	27800		250	500	ug/L	28100		250	500	ug/L	33800		2500	5000	ug/L	51100		250	500	ug/L	30300		250	500	ug/L	29200		250	500	ug/L	34600		250	500	ug/L	22300		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	33100		250	500	ug/L	NS					NS					32700		2500	5000	ug/L	35400		250	500	ug/L	29300		250	500	ug/L	29800		250	500	ug/L	NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	5920		500	1000	ug/L	943	J	500	1000	ug/L	885	J	500	1000	ug/L	1740		500	1000	ug/L	3700		500	1000	ug/L	1740		500	1000	ug/L	1660		500	1000	ug/L	1730		500	1000	ug/L	1290		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1620		500	1000	ug/L	NS					NS					1630		500	1000	ug/L	1690		500	1000	ug/L	1620		500	1000	ug/L	1690		500	1000	ug/L	NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	8230		250	500	ug/L	7860		250	500	ug/L	7690		250	500	ug/L	8450		250	500	ug/L	6640		250	500	ug/L	8410		250	500	ug/L	8180		250	500	ug/L	5260		250	500	ug/L	6080	B	250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	8480		250	500	ug/L	NS					NS					8120		250	500	ug/L	7100		250	500	ug/L	8490		250	500	ug/L	8540		250	500	ug/L	NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**32.5**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**18.1**		5	10	ug/L	**8.64**	J	5	10	ug/L	**9.29**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L	5	U	5	10	ug/L	**10.9**		5	10	ug/L	**10.8**		5	10	ug/L	NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	142000		100	200	ug/L	71300	J	100	200	ug/L	71400	J	100	200	ug/L	82800		1000	2000	ug/L	105000		100	200	ug/L	75800		250	500	ug/L	75900		250	500	ug/L	92400		2500	5000	ug/L	63900		2500	5000	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81500		100	200	ug/L	NS					NS					82000		1000	2000	ug/L	85700		100	200	ug/L	78100		250	500	ug/L	77700		250	500	ug/L	NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	11		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	5.46		0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	< 1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	NS					NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	**125**		2	4	ug/L	1.25	J	1	2	ug/L	1.52	J	1	2	ug/L	2.18	L	1	2	ug/L	**52.6**		1	2	ug/L	2.48		1	2	ug/L	2.89		1	2	ug/L	2.75	B	1	2	ug/L	3.68	L	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	3.95	B	2	4	ug/L	NS					NS					1	UL	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	NS					NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2.68**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.43**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	133		3	6	ug/L	94.7		1.5	3	ug/L	94.1		1.5	3	ug/L	65.7	L	1.5	3	ug/L	125		1.5	3	ug/L	61.9		1.5	3	ug/L	62.3		1.5	3	ug/L	69.8		1.5	3	ug/L	49.4		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	90.2		3	6	ug/L	NS					NS					63.4		1.5	3	ug/L	92.6		1.5	3	ug/L	61.4		1.5	3	ug/L	57.5		1.5	3	ug/L	NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**5.54**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**3.14**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**< 0.5**	U	0.5	1	ug/L	**0.903**	J	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1	U	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.726	K	0.5	1	ug/L	1.18		0.5	1	ug/L	0.676	J	0.5	1	ug/L	0.928	J	0.5	1	ug/L	1.49		0.5	1	ug/L	0.738	L	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1	U	1	2	ug/L	NS					NS					0.7	J	0.5	1	ug/L	1.06		0.5	1	ug/L	0.523	J	0.5	1	ug/L	1.71	J	0.5	1	ug/L	NS					NS				

Notes:

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T = Total
D = Dissolved
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T-NCSL = Adjusted Noncarcinogenic Screening Leve
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The associated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 2
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

							Location ID	40MW5					40MW5					40MW5					40MW5					40MW5				
							Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512				
							Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012				
							Sample Type	FD					N					N					N					FD				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	1540		50	100	ug/L	1890		50	100	ug/L	221		50	100	ug/L	911		50	100	ug/L	140	J	50	100	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	50	U	50	100	ug/L	NS					50	U	50	100	ug/L	50	U	50	100	ug/L
SW6010B	7439-89-6	Iron	T		1100		ug/L	**1580**	L	50	100	ug/L	**2040**	L	50	100	ug/L	156		50	100	ug/L	950		50	100	ug/L	123		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	82	J	50	100	ug/L	74.1	J	50	100	ug/L	NS					50	U	50	100	ug/L	50	U	50	100	ug/L
SW6010B	7439-95-4	Magnesium	T				ug/L	31300		250	500	ug/L	32500		250	500	ug/L	33500		250	500	ug/L	34700		2500	5000	ug/L	32500		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	29600		250	500	ug/L	29800		250	500	ug/L	NS					34600		2500	5000	ug/L	32100		250	500	ug/L
SW6010B	7440-09-7	Potassium	T				ug/L	1370		500	1000	ug/L	1370		500	1000	ug/L	1160		500	1000	ug/L	1270		500	1000	ug/L	1260		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1060		500	1000	ug/L	1080		500	1000	ug/L	NS					1240		500	1000	ug/L	1230		500	1000	ug/L
SW6010B	7440-23-5	Sodium	T				ug/L	5480		250	500	ug/L	5220		250	500	ug/L	4790		250	500	ug/L	5280		250	500	ug/L	5270		250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	5330		250	500	ug/L	5350		250	500	ug/L	NS					5170		250	500	ug/L	5420		250	500	ug/L
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**8.74**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	NS					5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-70-2	Calcium	T				ug/L	84800		100	200	ug/L	87200		100	200	ug/L	93400	J	100	200	ug/L	89900		1000	2000	ug/L	84900		100	200	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	81700		100	200	ug/L	82800		100	200	ug/L	NS					88400		1000	2000	ug/L	86100		100	200	ug/L
SW6020	7439-92-1	Lead	T			15	ug/L	1	U	1	2	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1.0	ug/L	NS					0.5	UL	0.5	1	ug/L	0.5	U	0.5	1	ug/L
SW5020	7439-96-5	Manganese	T		32		ug/L	7.67	B	2	4	ug/L	15.2	B	2	4	ug/L	1.11	J	1	2	ug/L	4.84	L	1	2	ug/L	4	B	1	2	ug/L
SW5020	7439-96-5	Manganese	D		32		ug/L	2	U	2	4	ug/L	1	U	1	2	ug/L	NS					1	UL	1	2	ug/L	1	U	1	2	ug/L
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-39-3	Barium	T		290	2000	ug/L	59.9		3	6	ug/L	57.1		1.5	3	ug/L	57.2		1.5	3	ug/L	56.9	L	1.5	3	ug/L	58.1		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	53.2		3	6	ug/L	55.4	J	1.5	3.0	ug/L	NS					54.3	L	1.5	3	ug/L	56.3		1.5	3	ug/L
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1.0	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.06	J	1	2	ug/L	1.31	K	1	2	ug/L	0.775	L	0.5	1	ug/L	0.784	K	0.5	1	ug/L	1.02		0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1.11	J	1	2	ug/L	1.19	K	0.5	1.0	ug/L	NS					0.847	K	0.5	1	ug/L	1.17		0.5	1	ug/L

							Location ID	40MW5					40MW5					40MW5					40MW5					40MW5				
							Sample ID	40MW5GW92512					40MW5GW61913					40MW5GW32714					40DUPGW32714					40MW5GW12214				
							Sample Date	9/25/2012					6/19/2013					3/27/2014					3/27/2014					12/2/2014				
							Sample Type	N					N					N					FD					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	266	J	50	100	ug/L	100	U	100	200	ug/L	169	J	100	200	ug/L	366		100	200	ug/L	256		100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	217		50	100	ug/L	137		50	100	ug/L	125	J	50	100	ug/L	339	J	50	100	ug/L	155		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	50	U	50	100	ug/L	NS					NS					NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	32000		250	500	ug/L	32500		250	500	ug/L	19000		250	500	ug/L	19500		250	500	ug/L	13200		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	32300		250	500	ug/L	NS					NS					NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	1300		500	1000	ug/L	1100		500	1000	ug/L	946	J	500	1000	ug/L	1020		500	1000	ug/L	764	J	500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	1230		500	1000	ug/L	NS					NS					NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	5730		250	500	ug/L	4590		250	500	ug/L	5370		250	500	ug/L	5640		250	500	ug/L	6580	B	250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	5430		250	500	ug/L	NS					NS					NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	**10.5**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	86900		100	200	ug/L	91600		250	500	ug/L	68300		2500	5000	ug/L	72700		2500	5000	ug/L	41400		2500	5000	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	89200		100	200	ug/L	NS					NS					NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	NS					NS					NS					NS					NS				
SW5020	7439-96-5	Manganese	T		32		ug/L	2.13	B	1	2	ug/L	1.8	J	1	2	ug/L	1.06	B	1	2	ug/L	1.57	B	1	2	ug/L	1	UL	1	2	ug/L
SW5020	7439-96-5	Manganese	D		32		ug/L	1	U	1	2	ug/L	NS					NS					NS					NS				
SW6020	7440-38-2	Arsenic	T		0.47	10	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D		0.47	10	ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS					NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	56.9		1.5	3	ug/L	56.9		1.5	3	ug/L	34.1		1.5	3	ug/L	33.2		1.5	3	ug/L	24		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	58.7		1.5	3	ug/L	NS					NS					NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 0.5**	U	0.5	1	ug/L	NS					NS					NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	0.845	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW5020	7782-49-2	Selenium	D		7.8	50	ug/L	1.05		0.5	1	ug/L	NS					NS					NS					NS				

							Location ID	40MW5					40MW5				
							Sample ID	40DUPGW12214									
							Sample Date	12/2/2014									
							Sample Type	FD									
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit					
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	300		100	200	ug/L					
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	NS									
SW6010B	7439-89-6	Iron	T		1100		ug/L	177		50	100	ug/L					
SW6010B	7439-89-6	Iron	D		1100		ug/L	NS									
SW6010B	7439-95-4	Magnesium	T				ug/L	12400		250	500	ug/L					
SW6010B	7439-95-4	Magnesium	D				ug/L	NS									
SW6010B	7440-09-7	Potassium	T				ug/L	817	J	500	1000	ug/L					
SW6010B	7440-09-7	Potassium	D				ug/L	NS									
SW6010B	7440-23-5	Sodium	T				ug/L	6350	B	250	500	ug/L					
SW6010B	7440-23-5	Sodium	D				ug/L	NS									
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L					
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	NS									
SW6010B	7440-70-2	Calcium	T				ug/L	41000		2500	5000	ug/L					
SW6010B	7440-70-2	Calcium	D				ug/L	NS									
SW6020	7439-92-1	Lead	T			15	ug/L	0.5	UL	0.5	1	ug/L					
SW6020	7439-92-1	Lead	D			15	ug/L	NS									
SW5020	7439-96-5	Manganese	T		32		ug/L	1	UL	1	2	ug/L					
SW5020	7439-96-5	Manganese	D		32		ug/L	NS									
SW6020	7440-38-2	Arsenic	T		0.47	10	ug/L	**< 0.5**	U	0.5	1	ug/L					
SW6020	7440-38-2	Arsenic	D		0.47	10	ug/L	NS									
SW6020	7440-39-3	Barium	T		290	2000	ug/L	24.1		1.5	3	ug/L					
SW6020	7440-39-3	Barium	D		290	2000	ug/L	NS									
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 0.5**	U	0.5	1	ug/L					
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	NS									
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	0.5	UL	0.5	1	ug/L					
SW5020	7782-49-2	Selenium	D		7.8	50	ug/L	NS									

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Leve
T-NCSL = Adjusted Noncarcinogenic Screening Leve
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The associated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported
NS=Not Sampled because Turbidity was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 2
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

							Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
							Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714					40MW6GW12214				
							Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014				
							Sample Type	N					N					FD					N					N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	242		50	100	ug/L	210		50	100	ug/L	209		50	100	ug/L	230		50	100	ug/L	467		50	100	ug/L	378		100	200	ug/L	288		100	200	ug/L	466		100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	NS					NS					NS					NS					50	U	50	100	ug/L	NS					NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	323	L	50	100	ug/L	155		50	100	ug/L	238		50	100	ug/L	296		50	100	ug/L	393		50	100	ug/L	478		50	100	ug/L	292	J	50	100	ug/L	451		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	NS					NS					NS					NS					50	U	50	100	ug/L	NS					NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	32000		250	500	ug/L	36100		250	500	ug/L	33100		2500	5000	ug/L	34000		2500	5000	ug/L	33700		250	500	ug/L	33900		250	500	ug/L	7560		250	500	ug/L	6790		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	NS					NS					NS					NS					33500		250	500	ug/L	NS					NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	1000		500	1000	ug/L	1020		500	1000	ug/L	1050		500	1000	ug/L	1140		500	1000	ug/L	1220		500	1000	ug/L	1240		500	1000	ug/L	738	J	500	1000	ug/L	1120		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	NS					NS					NS					NS					1140		500	1000	ug/L	NS					NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	5100		250	500	ug/L	4400		250	500	ug/L	4960		250	500	ug/L	5180		250	500	ug/L	5240		250	500	ug/L	4090		250	500	ug/L	7740	B	250	500	ug/L	7980	B	250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	NS					NS					NS					NS					5180		250	500	ug/L	NS					NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	6.42	J	5	10	ug/L	**8.09**	J	5	10	ug/L	5	U	5	10	ug/L	**10.9**		5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	NS					NS					NS					NS					5	U	5	10	ug/L	NS					NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	84500		100	200	ug/L	98400	J	100	200	ug/L	85000		1000	2000	ug/L	85300		1000	2000	ug/L	88200		100	200	ug/L	89800		250	500	ug/L	23500		250	500	ug/L	22200		250	500	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	NS					NS					NS					NS					89400		100	200	ug/L	NS					NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	1	U	1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	0.525	L	0.5	1	ug/L	0.733	J	0.5	1	ug/L	0.569	J	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	NS					NS					NS					NS					0.5	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	2	U	2	4	ug/L	1.09	J	1	2	ug/L	1.82	J	1	2	ug/L	2.93	J	1	2	ug/L	2.41	B	1	2	ug/L	2.92		1	2	ug/L	1.66	B	1	2	ug/L	2.65	L	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	NS					NS					NS					NS					1.07	B	1	2	ug/L	NS					NS					NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	49.9		3	6	ug/L	53.8		1.5	3	ug/L	48.8	L	1.5	3	ug/L	52.2	L	1.5	3	ug/L	51.4		1.5	3	ug/L	49.1		1.5	3	ug/L	12.7		1.5	3	ug/L	12.2		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	NS					NS					NS					NS					51.5		1.5	3	ug/L	NS					NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**< 1**	U	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	NS					NS					NS					NS					**< 0.5**	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.28	J	1	2	ug/L	0.5	U	0.5	1	ug/L	0.697	J	0.5	1	ug/L	1.24	J	0.5	1	ug/L	0.943	J	0.5	1	ug/L	1.06		0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	NS					NS					NS					NS					1.11		0.5	1	ug/L	NS					NS					NS				

Notes:

CAS = Chemical Abstracts Service
ug/L = Microgram Per Liter
T = Total
D = Dissolved
CSL = Carcinogenic Screening Leve
T-NCSL = Adjusted Noncarcinogenic Screening Leve
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

U = Not Detected. The assciocated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
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UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported
NS=Not Sampled because Turbidty was stable at less than or equl to 10 NTU:
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 2
November 2011 Screening Levels for Groundwater Metals Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

							Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7					40MW7					ze the				
							Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714					40MW7GW12214				
							Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014				
							Sample Type	N					N					N					N					N					N					N				
Method	CAS	Chemical	fraction	CSL	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6010B	7429-90-5	Aluminum	T		1600		ug/L	**8290**		50	100	ug/L	344		50	100	ug/L	70.3	J	50	100	ug/L	**1730**		50	100	ug/L	100	U	100	200	ug/L	100	U	100	200	ug/L	100	U	100	200	ug/L
SW6010B	7429-90-5	Aluminum	D		1600		ug/L	50	U	50	100	ug/L	NS					NS					50	U	50	100	ug/L	NS					NS					NS				
SW6010B	7439-89-6	Iron	T		1100		ug/L	**7950**	L	50	100	ug/L	263		50	100	ug/L	149		50	100	ug/L	**1620**		50	100	ug/L	55.3	J	50	100	ug/L	213	J	50	100	ug/L	198		50	100	ug/L
SW6010B	7439-89-6	Iron	D		1100		ug/L	73.1	J	50	100	ug/L	NS					NS					50	U	50	100	ug/L	NS					NS					NS				
SW6010B	7439-95-4	Magnesium	T				ug/L	61900		250	500	ug/L	36100		250	500	ug/L	36400		2500	5000	ug/L	41100		250	500	ug/L	32200		250	500	ug/L	32600		2500	5000	ug/L	29700		250	500	ug/L
SW6010B	7439-95-4	Magnesium	D				ug/L	32500		250	500	ug/L	NS					NS					36100		250	500	ug/L	NS					NS					NS				
SW6010B	7440-09-7	Potassium	T				ug/L	4250		500	1000	ug/L	1720		500	1000	ug/L	1670		500	1000	ug/L	2130		500	1000	ug/L	1550		500	1000	ug/L	1570		500	1000	ug/L	1550		500	1000	ug/L
SW6010B	7440-09-7	Potassium	D				ug/L	2300		500	1000	ug/L	NS					NS					1770		500	1000	ug/L	NS					NS					NS				
SW6010B	7440-23-5	Sodium	T				ug/L	66700		250	500	ug/L	8540		250	500	ug/L	4030		250	500	ug/L	3510		250	500	ug/L	3990		250	500	ug/L	3660		250	500	ug/L	3810	B	250	500	ug/L
SW6010B	7440-23-5	Sodium	D				ug/L	78300		250	500	ug/L	NS					NS					3360		250	500	ug/L	NS					NS					NS				
SW6010B	7440-62-2	Vanadium	T		7.8		ug/L	**9.26**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L	**9.8**	J	5	10	ug/L	5	U	5	10	ug/L	5	U	5	10	ug/L
SW6010B	7440-62-2	Vanadium	D		7.8		ug/L	5	U	5	10	ug/L	NS					NS					5	U	5	10	ug/L	NS					NS					NS				
SW6010B	7440-70-2	Calcium	T				ug/L	190000		100	200	ug/L	80600	J	100	200	ug/L	77800		1000	2000	ug/L	101000		100	200	ug/L	71300		250	500	ug/L	81500		2500	5000	ug/L	77000		2500	5000	ug/L
SW6010B	7440-70-2	Calcium	D				ug/L	70600		100	200	ug/L	NS					NS					77700		100	200	ug/L	NS					NS					NS				
SW6020	7439-92-1	Lead	T			15	ug/L	9.37		1	2	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L	1.61		0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW6020	7439-92-1	Lead	D			15	ug/L	1	U	1	2	ug/L	NS					NS					0.5	U	0.5	1	ug/L	NS					NS					NS				
SW6020	7439-96-5	Manganese	T		32		ug/L	**181**		2	4	ug/L	10.8		1	2	ug/L	6.47	L	1	2	ug/L	26.5		1	2	ug/L	1.76	J	1	2	ug/L	1.88	B	1	2	ug/L	1.35	L	1	2	ug/L
SW6020	7439-96-5	Manganese	D		32		ug/L	23.9	B	2	4	ug/L	NS					NS					3.77	B	1	2	ug/L	NS					NS					NS				
SW6020	7440-38-2	Arsenic	T	0.045	0.47	10	ug/L	**2**	K	1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**0.615**	J	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-38-2	Arsenic	D	0.045	0.47	10	ug/L	**< 1**	U	1	2	ug/L	NS					**< 0.5**	U	0.5	1	ug/L	NS					NS					NS					NS				
SW6020	7440-39-3	Barium	T		290	2000	ug/L	252		3	6	ug/L	145		1.5	3	ug/L	146	L	1.5	3	ug/L	172		1.5	3	ug/L	130		1.5	3	ug/L	118		1.5	3	ug/L	114		1.5	3	ug/L
SW6020	7440-39-3	Barium	D		290	2000	ug/L	75.8		3	6	ug/L	NS					NS					170		1.5	3	ug/L	NS					NS					NS				
SW6020	7440-48-4	Cobalt	T		0.47		ug/L	**3.04**		1	2	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**1.02**		0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L	**< 0.5**	U	0.5	1	ug/L
SW6020	7440-48-4	Cobalt	D		0.47		ug/L	**< 1**	U	1	2	ug/L	NS					NS					**0.825**	J	0.5	1	ug/L	NS					NS					NS				
SW6020	7782-49-2	Selenium	T		7.8	50	ug/L	1.86	K	1	2	ug/L	0.5	UL	0.5	1	ug/L	0.652	K	0.5	1	ug/L	0.848	J	0.5	1	ug/L	0.678	J	0.5	1	ug/L	0.5	U	0.5	1	ug/L	0.5	UL	0.5	1	ug/L
SW6020	7782-49-2	Selenium	D		7.8	50	ug/L	1.81	K	1	2	ug/L	NS					NS					0.913	J	0.5	1	ug/L	NS					NS					NS				

Notes:

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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
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U = Not Detected. The associated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
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UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
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NS=Not Sampled because Turbidity was stable at less than or equl to 10 NTUs
Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

Table 3
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

					Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01					40LFMW01				
					Sample ID	40LFMW01GW112111					40DUPGW030612					40LFMW01GW030612					LFMW01GW061212					LFMW01GW92612				
					Sample Date	11/21/2011					3/6/2012					3/6/2012					6/12/2012					9/26/2012				
					Sample Type	N					FD					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**9.67**	J	0.1	0.2	ug/L	**8.93**		0.1	0.2	ug/L	**8.88**		0.1	0.2	ug/L	**4.81**		0.1	0.2	ug/L	**8.75**		0.1	0.2	ug/L

					Location ID	40LFMW01					40LFMW01					40LFMW01					40LFMW01				
					Sample ID	40DUPGW61913					LFMW01GW61913					LFMW01GW32714					LFMW01GW12214				
					Sample Date	6/19/2013					6/19/2013					3/27/2014					12/2/2014				
					Sample Type	FD					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	Int Qual	VQ	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**4.44**		0.2	0.4	ug/L	**4.38**		0.2	0.4	ug/L	**7.47**		0.1	0.2	ug/L	**3.04**		0.1	0.2	ug/L

Notes:
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T-NCSL = Adjusted Noncarcinogenic Screening Leve
MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
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DL = Detection Limit
N = Normal
FD = Field Duplicate

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The associated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
UJ = Not detected. Quantitation limit may be inaccurate or imprecise.
UL = The analyte was not detected, and the reported quantitation limit is probably higher than reported

Table 3
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

					Location ID	40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5					40MW5				
					Sample ID	40DUPGW112011					40MW5GW112011					40MW5GW030712					40MW5GW061212					40DUPGW92512					40MW5GW92512					40MW5GW61913					40MW5GW32714					40MW5GW12214					40DUPGW12214				
					Sample Date	11/20/2011					11/20/2011					3/7/2012					6/12/2012					9/25/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014					12/2/2014				
					Sample Type	FD					N					N					N					FD					N					N					N					N					FD				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**1.55**	J	0.1	0.2	ug/L	**1.55**	J	0.1	0.2	ug/L	0.931		0.1	0.2	ug/L	0.986		0.1	0.2	ug/L	**1.81**		0.1	0.2	ug/L	**1.71**		0.1	0.2	ug/L	0.85		0.1	0.2	ug/L	0.721		0.1	0.2	ug/L	0.883		0.1	0.2	ug/L	0.856		0.1	0.2	ug/L

Notes:
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MCL = Maximum Contaminant Level
= Lowest Value For Screening
Bold = Exceeds the Carcinogenic or Adjusted Noncarcinogenic Screening Leve
VQ = Validation Qualifier
LOD = Limit of Detection
LOQ = Limit of Quantitation
DL = Detection Limit
N = Normal
FD = Field Duplicate

Screening Levels are based on USEPA Region III Risk-Based Concentration values from the November, 2011 RBC Table.

U = Not Detected. The associated number indicates the approximate sample concentratior
B = Not detected substantially above the level reported in laboratory or field blanks
R = Unusable result. Analyte may or may not be present in the sample
J = Analyte present. Reported value may or may not be accurate or precise
K = Analyte present. Reported value may be biased high. Actual value is expected to be lower
L = Analyte present. Reported value may be biased low. Actual value is expected to be highe
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Table 3
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

					Location ID	40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6					40MW6				
					Sample ID	40MW6GW112111					40MW6GW030712					40DUPGW061212					40MW6GW061212					40MW6GW92512					40MW6GW61913					40MW6GW32714					40MW6GW12214				
					Sample Date	11/21/2011					3/7/2012					6/12/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014				
					Sample Type	N					N					FD					N					N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	0.885	J	0.1	0.2	ug/L	0.526		0.1	0.2	ug/L	0.635		0.1	0.2	ug/L	0.647		0.1	0.2	ug/L	**1.25**		0.1	0.2	ug/L	0.535		0.1	0.2	ug/L	0.506		0.1	0.2	ug/L	1.03		0.1	0.2	ug/L

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Table 3
November 2011 Screening Levels for Groundwater Perchlorate Data - Residential Tapwater Pathway
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Year 4

					Location ID	40MW7					40MW7					40MW7					40MW7					40MW7					40MW7					40MW7				
					Sample ID	40MW7GW112011					40MW7GW030612					40MW7GW601212					40MW7GW92512					40MW7GW61913					40MW7GW32714					40MW7GW12214				
					Sample Date	11/20/2011					3/6/2012					6/12/2012					9/25/2012					6/19/2013					3/27/2014					12/2/2014				
					Sample Type	N					N					N					N					N					N					N				
Method	CAS	Chemical	T-NCSL	MCL	Units	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	Int Qual	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit	Result	VQ	LOD	LOQ	DL Unit
SW6850	14797-73-0	PERCHLORATE	1.1	15	ug/L	**4.5**	J	0.1	0.2	ug/L	**4.18**		0.1	0.2	ug/L	**3.69**		0.1	0.2	ug/L	**3.66**		0.1	0.2	ug/L	**4.1**		0.1	0.2	ug/L	**3.74**		0.1	0.2	ug/L	**3.14**		0.1	0.2	ug/L

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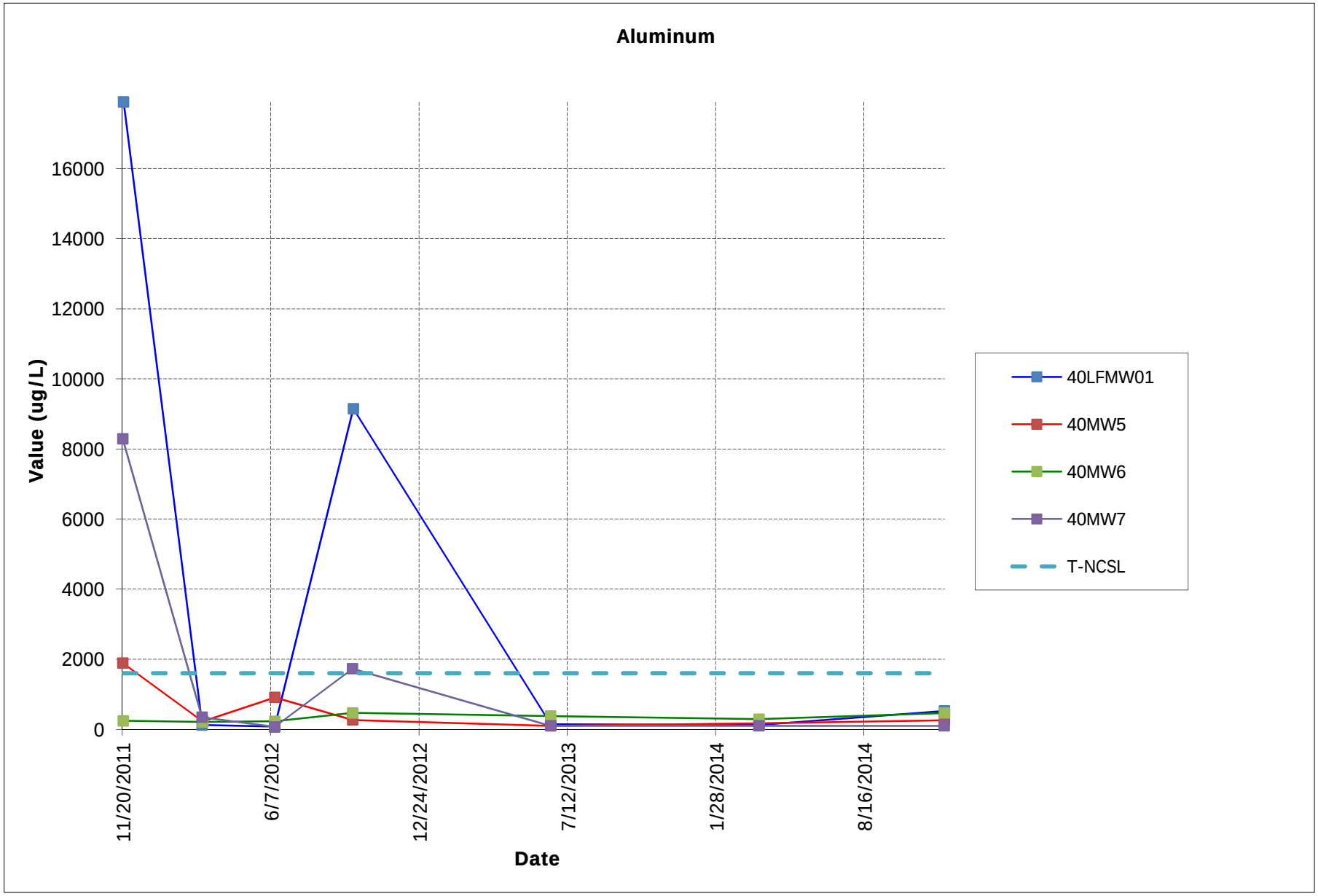
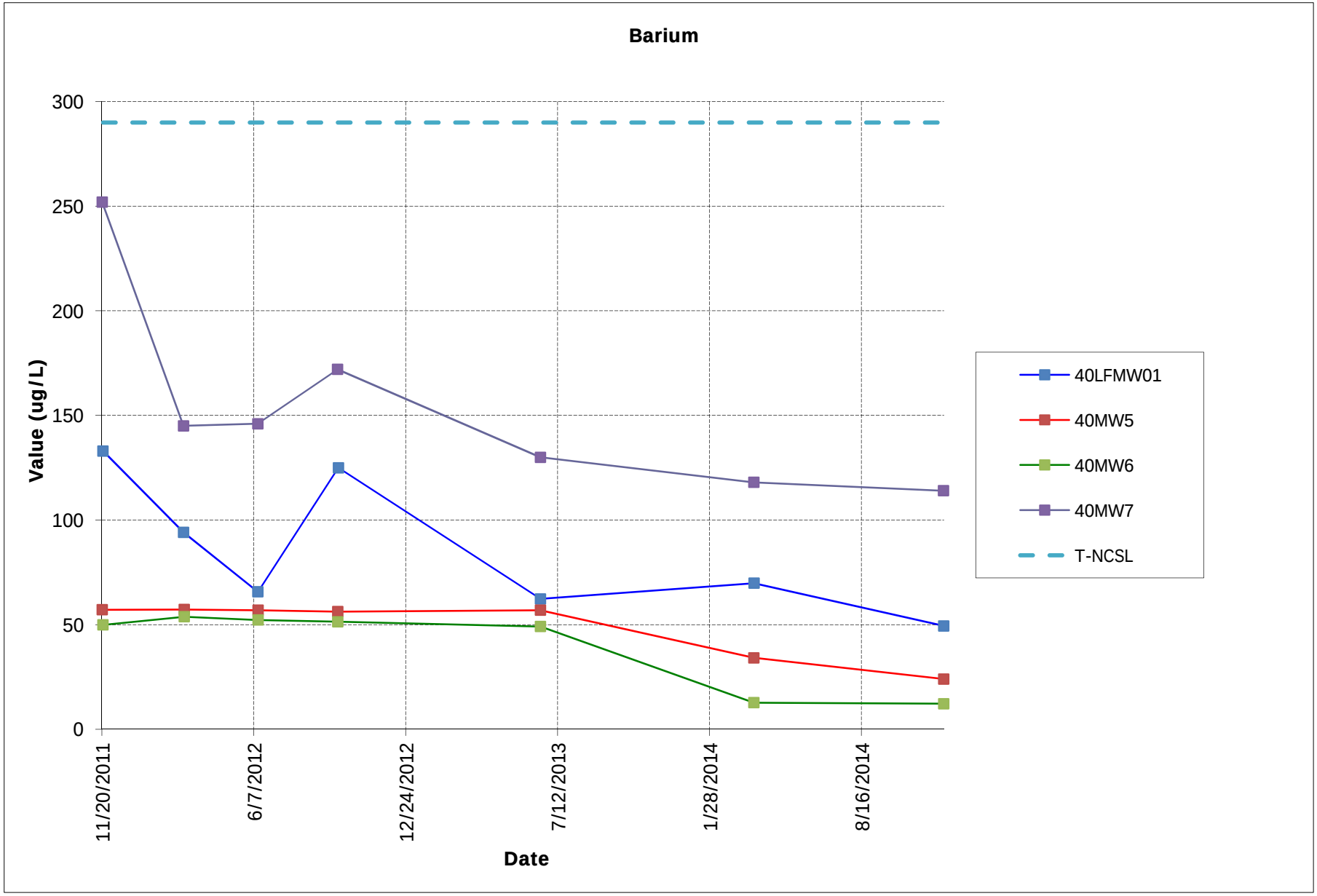
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



MCL = Maximum Contaminant Level
T-NCSL = Adjusted Noncarcinogenic Screening Level

SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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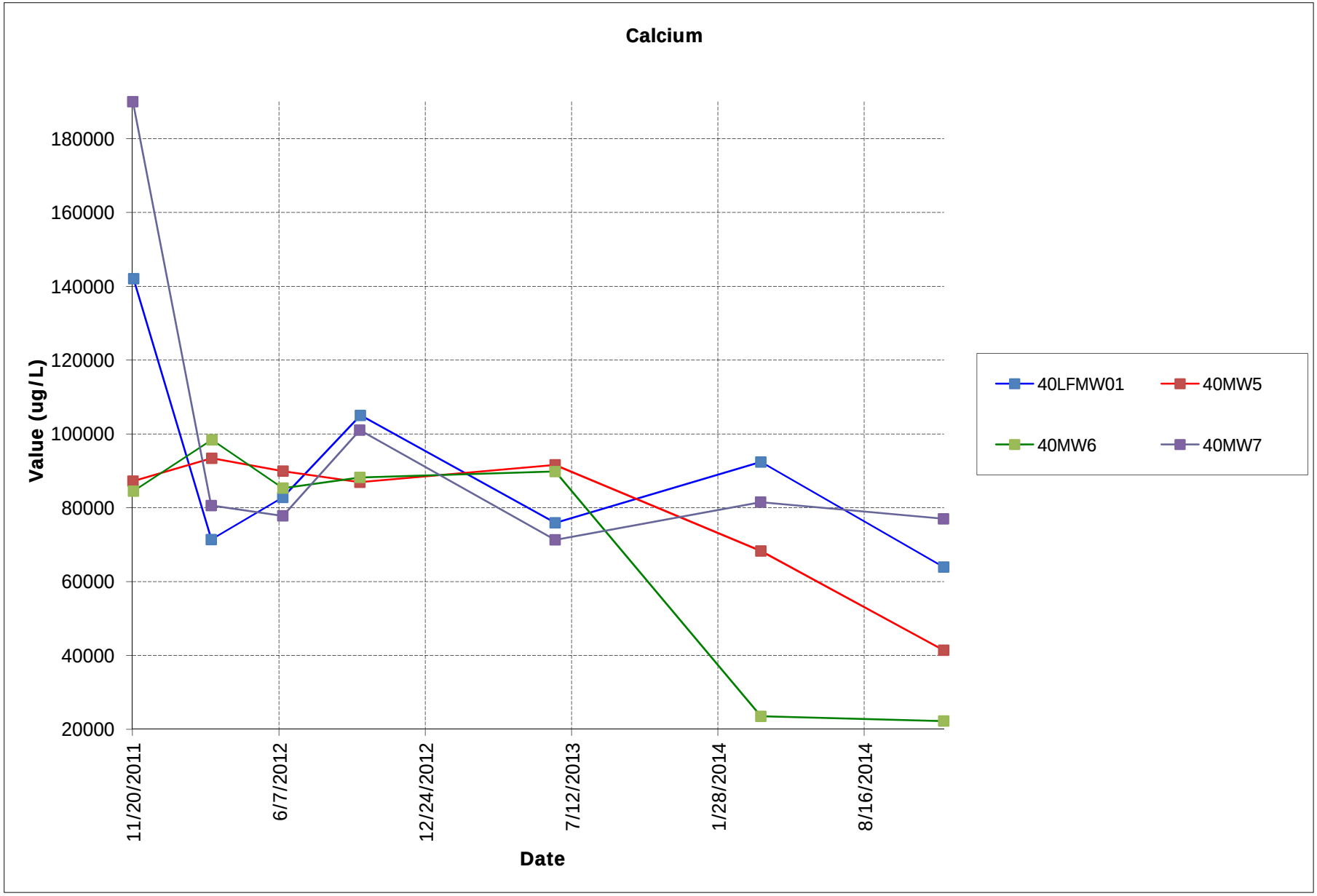
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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SWMU 40 (RAAP-009)
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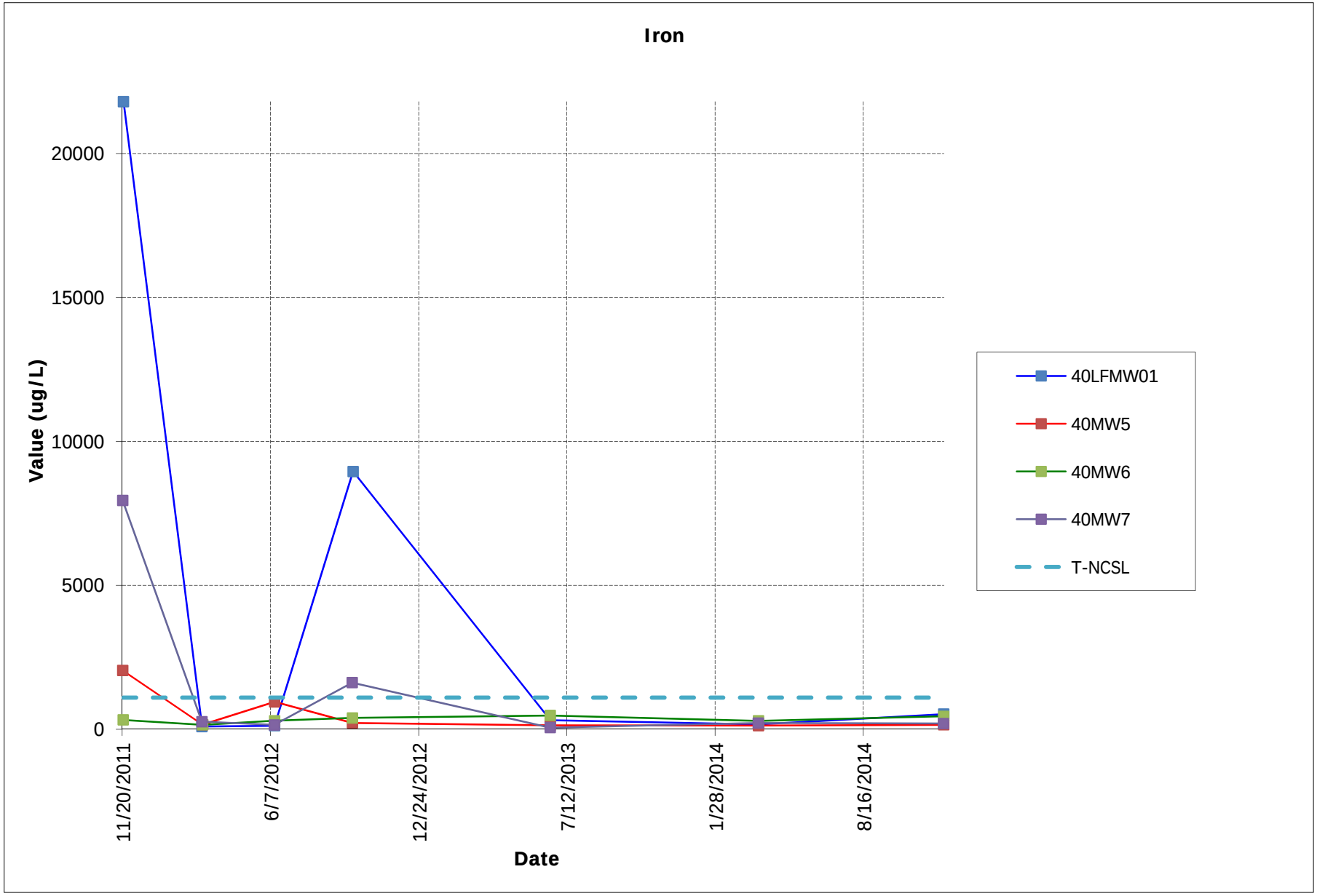
Longterm Monitoring Data Graph



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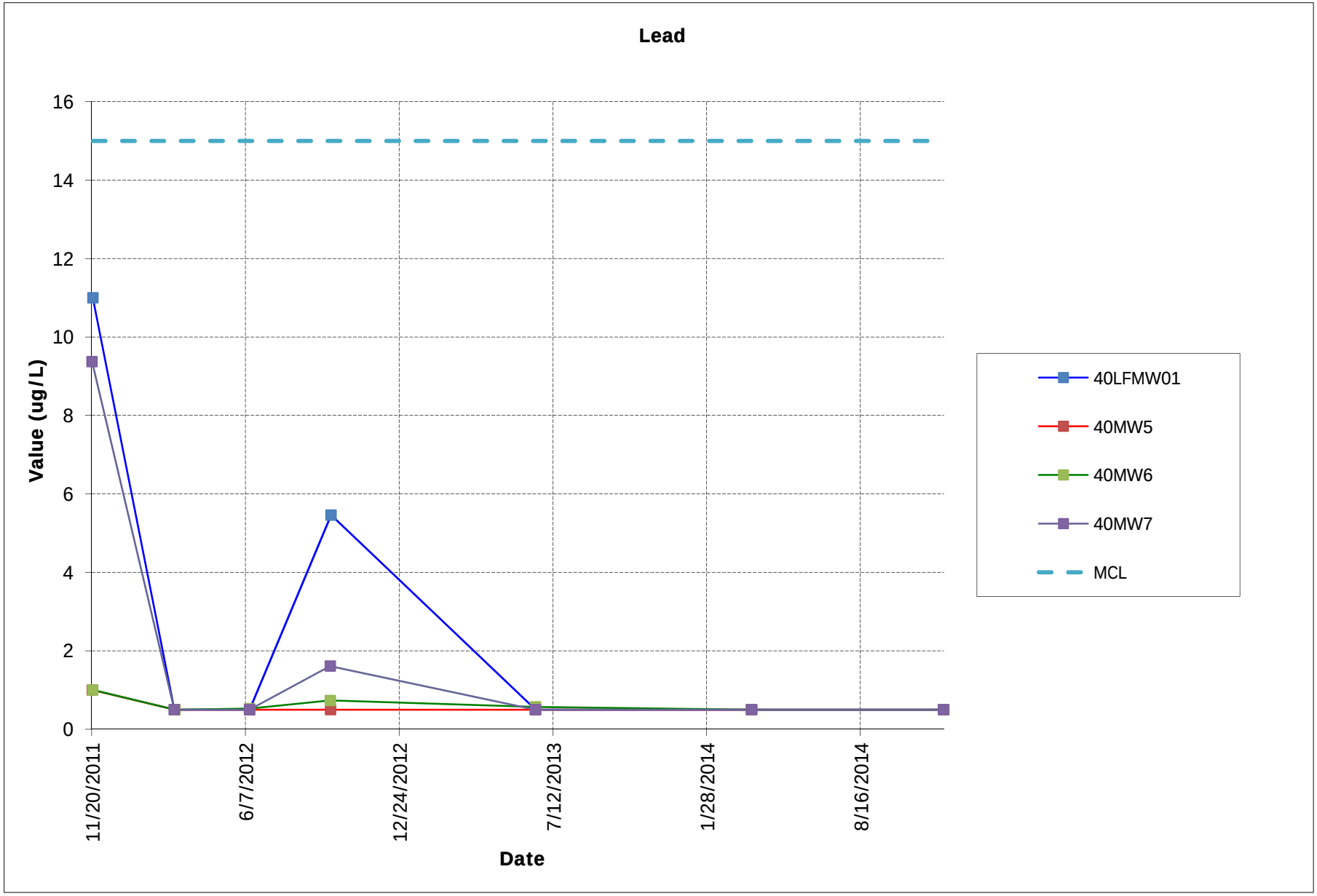
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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SWMU 40 (RAAP-009)
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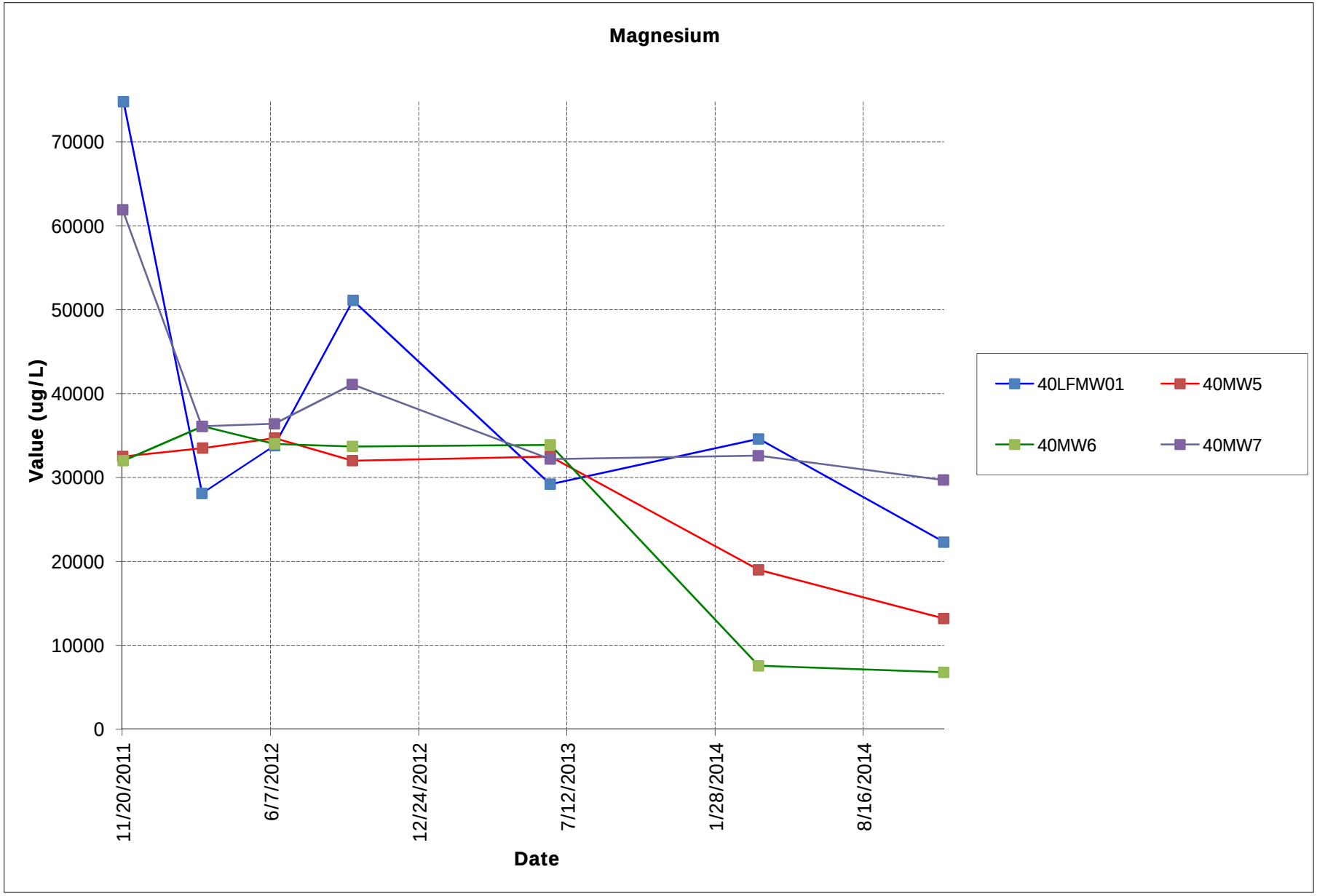
Longterm Monitoring Data Graph



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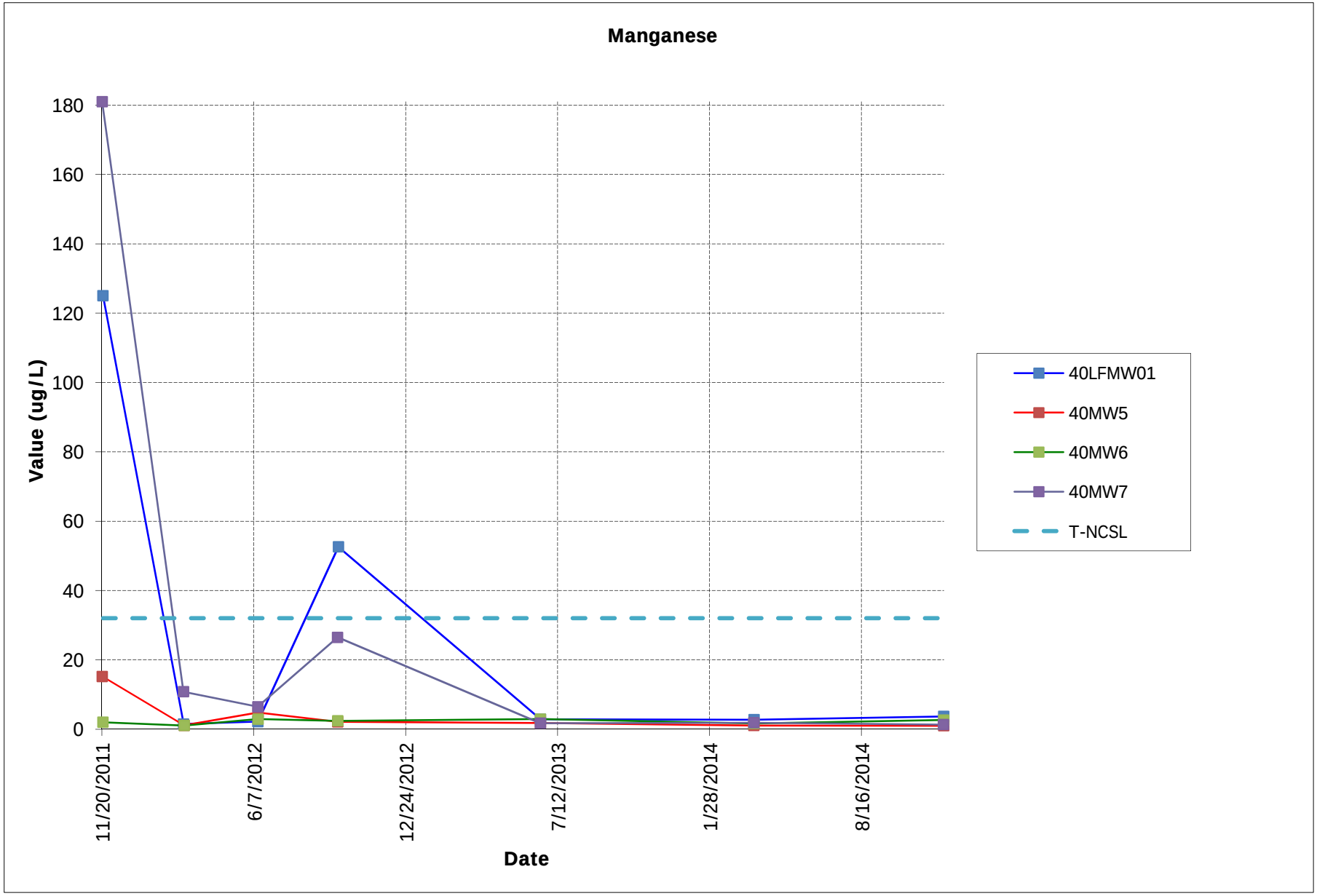
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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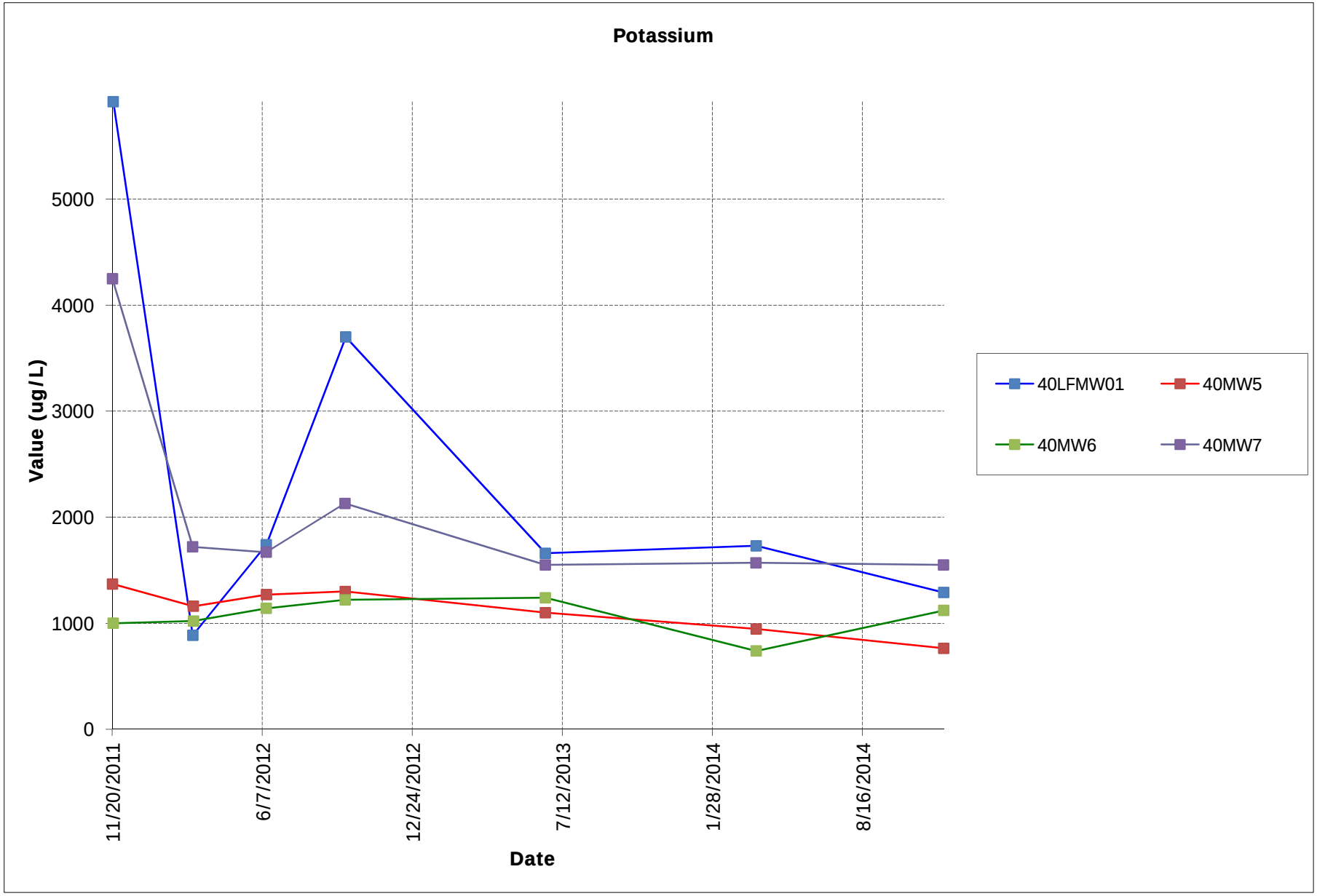
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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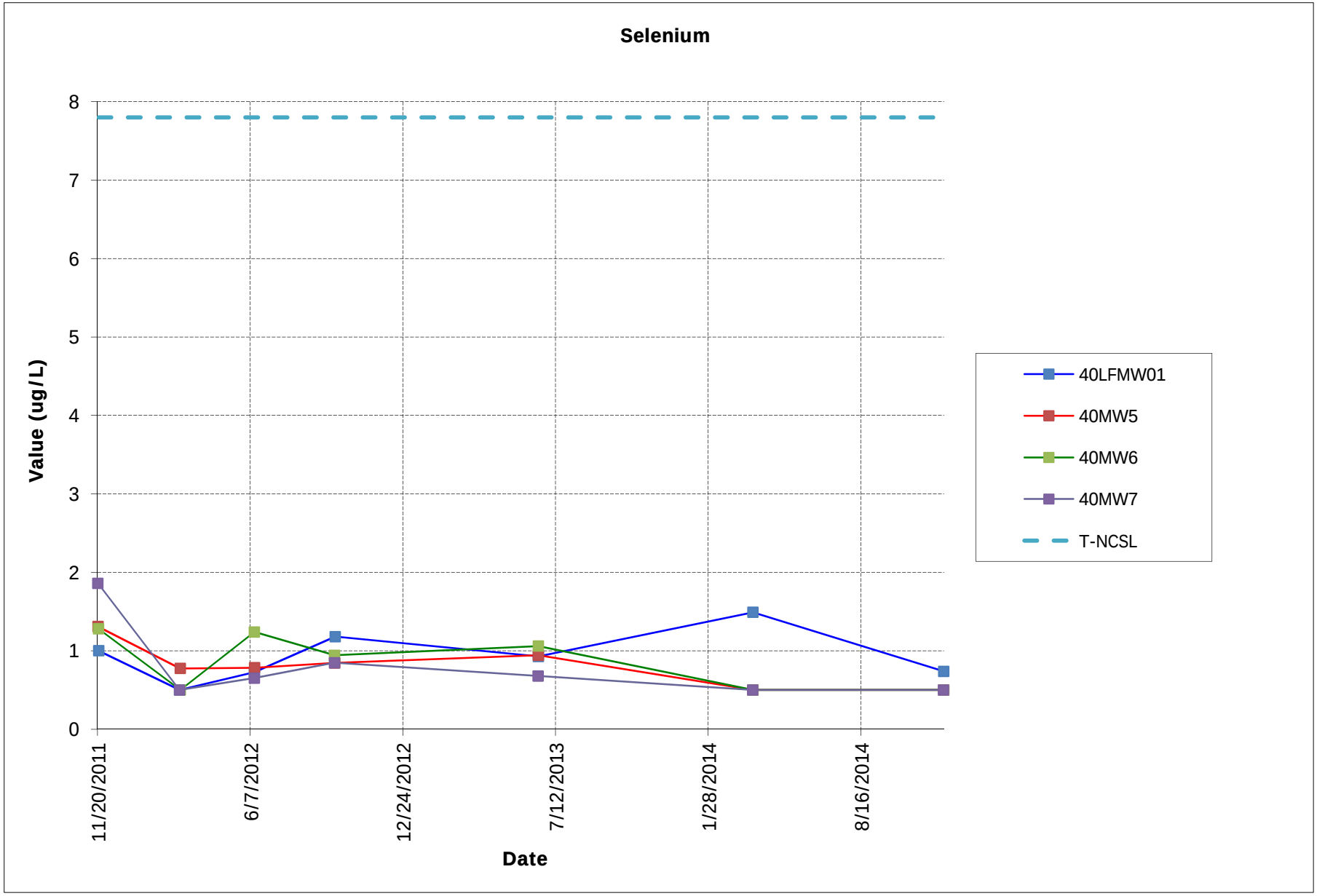
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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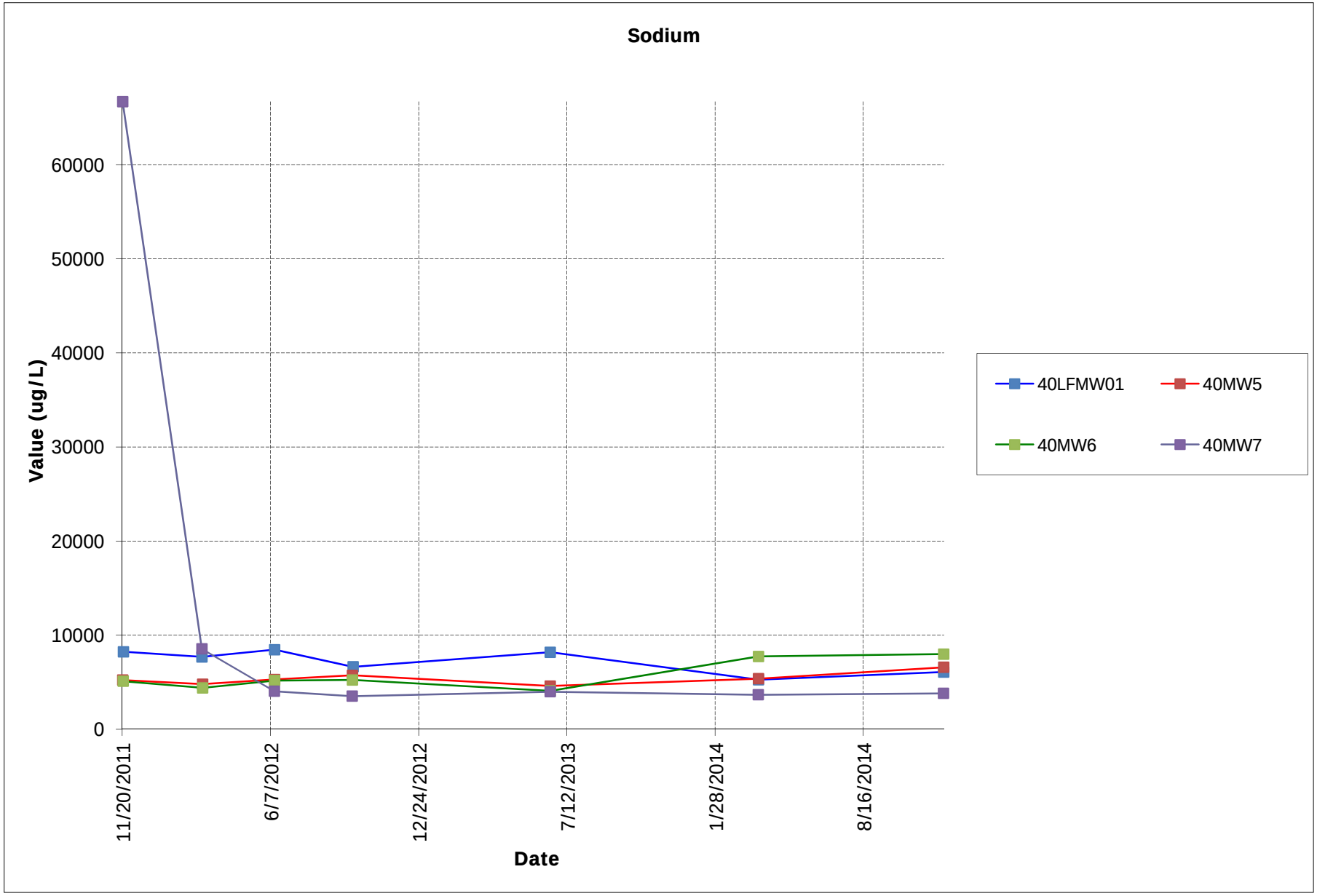
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
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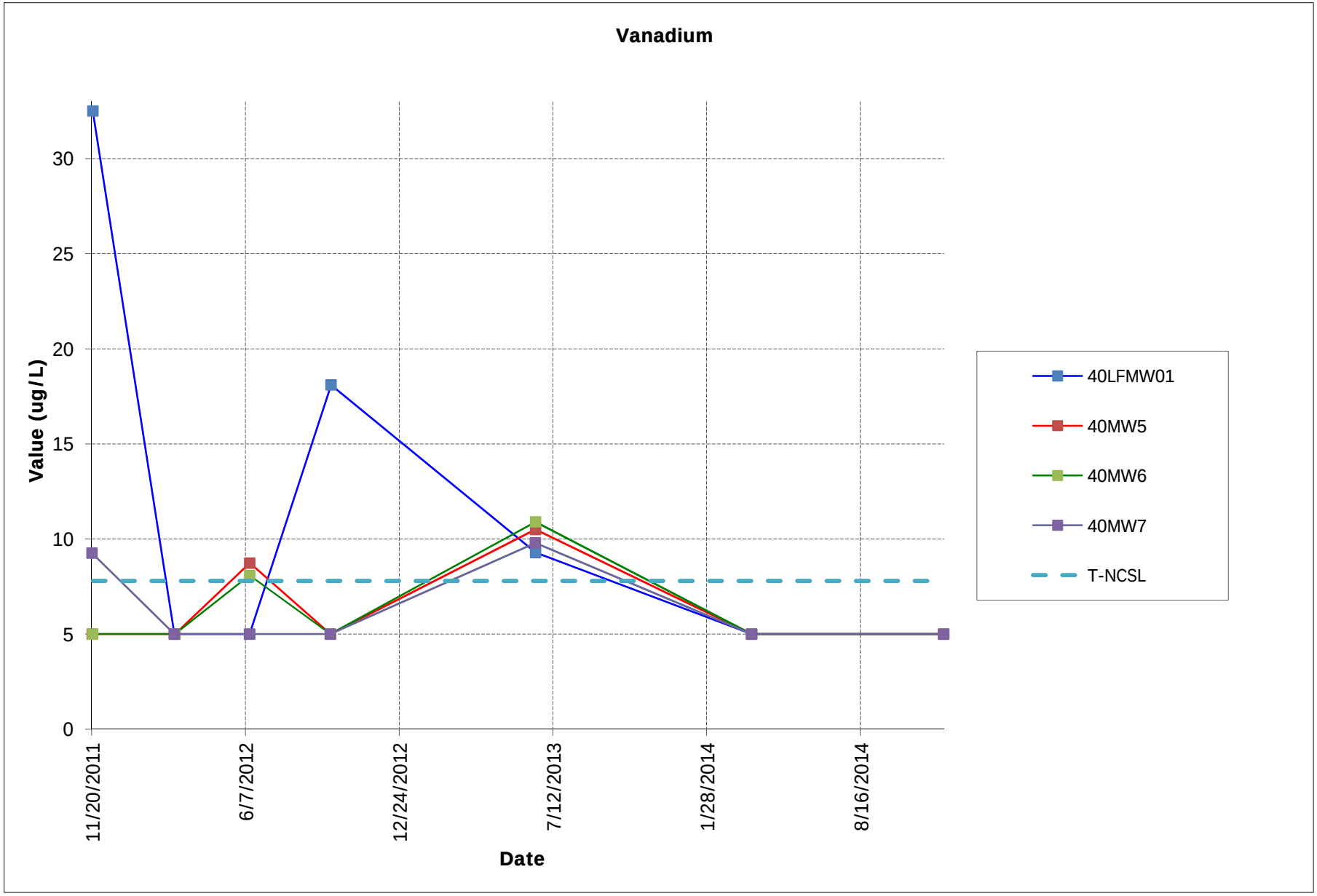

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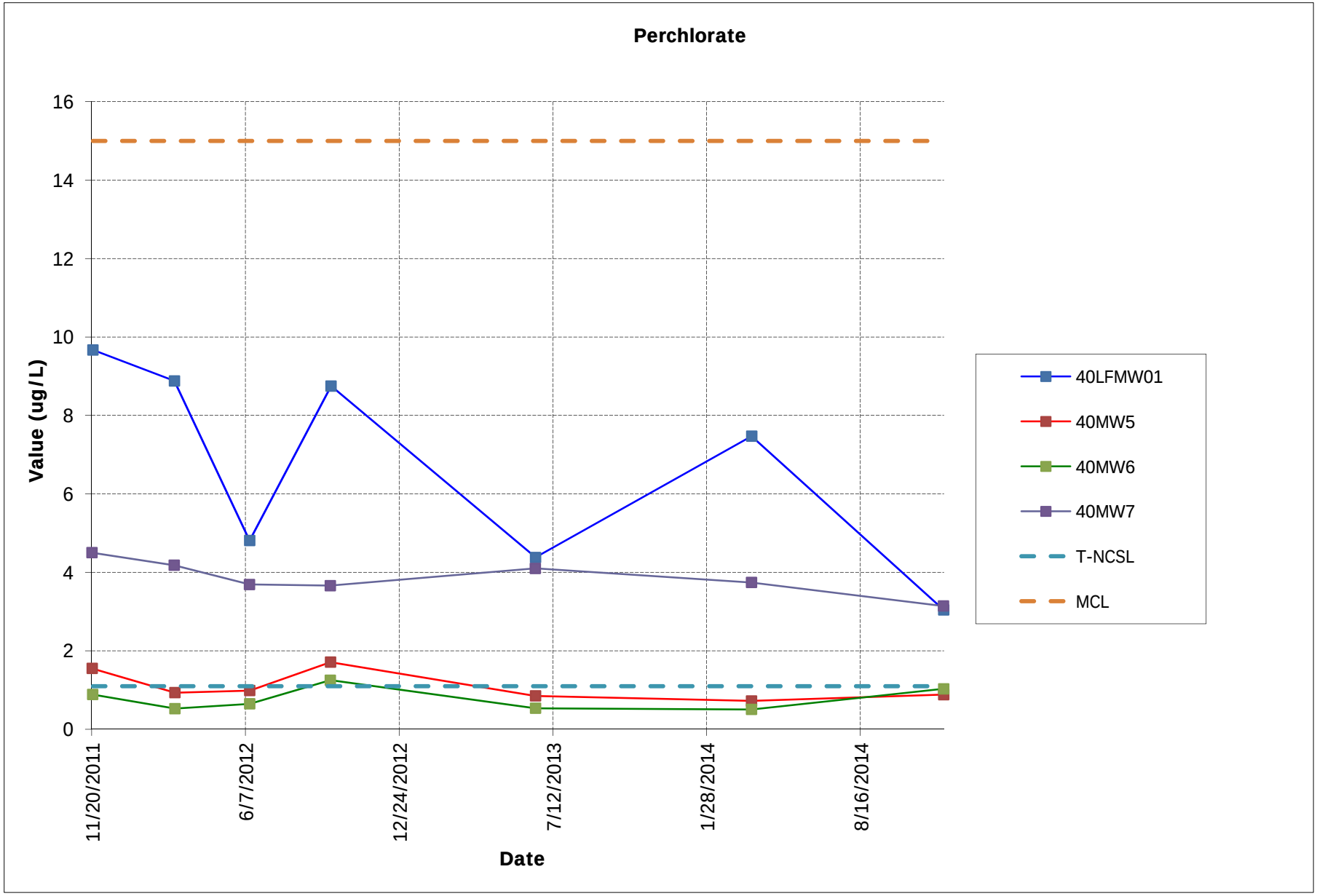
SWMU 40 (RAAP-009)
Radford Army Ammunition Plant
Longterm Monitoring Data Graph



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APPENDIX C
Inspections

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP SWMU 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 11 / 15 / 11 Time of Inspection 8 : 00 AM/PM

Reason for Inspection: Quarterly/ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	Erosion ✓ Settlement, Subsidence, or Displacement ✓ Pooling ✓	NONE	N/A
Vegetative Cover	Dead vegetation, or inadequate growth ✓ Presence of trees, shrubs, or deep rooted vegetation ✓ Need to fertilize, irrigate, or cut grass ✓	COMPLETED NEW SEEDING 1-MONTH PRIOR - INITIAL GROWTH LOOKS GOOD	NONE
PVC Liner (if applicable)	Liner exposed ✓	NO	NONE
Peripheral Drainage Swales	Erosion ✓ Subsidence ✓ Pooling ✓	NO	NONE
Stormwater Drainage Areas	Erosion ✓ Subsidence ✓ Vegetation growth ✓ Accumulated sediment ✓	LOOKS GOOD	NONE
Security (if applicable)	Access road in place ✓ Sign legible and in place ✓ Fences not breached and no visible damage ✓	NO FENCE @ SITE, SIGN NOT IN PLACE YET	NONE
Monitoring Wells Outer protective casing Well caps and locks Concrete pad Inner cap and riser	Casing in good condition ✓ In place and functioning ✓ Cracks or settlement ✓ Intact and functioning ✓	NONE	NONE
Benchmarks (2) (if applicable)	Monuments present and visible Damage to monument	N/A	N/A

Date and nature of repairs or remedial action: N/A

Printed Name of Inspector: JONAH ANDERSON Signature of Inspector: [signature]

Company: UXB-KEMRON

Date remedial action completed: N/A Remedial action approved by: N/A

NOTE: WILL PLACE SIGN ONCE RFAAP RCRA PERMIT IS COMPLETE.

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP SWMU 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 3 / 7 / 12 Time of Inspection 2 : 00 AM PM

Reason for Inspection: Quarterly/ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	• Erosion ✓ • Settlement, Subsidence, or Displacement ✓ • Pooling ✓	SLIGHT PONDING IN 5 AREAS	REPAIR PLANNED FOR DURING THE COMING SUMMER MONTHS
Vegetative Cover	• Dead vegetation, or inadequate growth ✓ • Presence of trees, shrubs, or deep rooted vegetation ✓ • Need to fertilize, irrigate, or cut grass ✓	STILL INITIAL GROWTH. EVERYTHING ELSE LOOKS GOOD	NONE
PVC Liner (if applicable)	• Liner exposed ✓	NO	NONE
Peripheral Drainage Swales	• Erosion ✓ • Subsidence ✓ • Pooling ✓	NO	NONE
Stormwater Drainage Areas	• Erosion ✓ • Subsidence ✓ • Vegetation growth ✓ • Accumulated sediment ✓	LOOKS GOOD	NONE
Security (if applicable)	• Access road in place ✓ • Sign legible and in place ✓ • Fences not breached and no visible damage ✓	SIGN NOT YET PLACED	NONE
Monitoring Wells • Outer protective casing • Well caps and locks • Concrete pad • Inner cap and riser	• Casing in good condition ✓ • In place and functioning ✓ • Cracks or settlement ✓ • Intact and functioning ✓	NONE	NONE
Benchmarks (2) (if applicable)	• Monuments present and visible • Damage to monument	N/A	N/A

Date and nature of repairs or remedial action: N/A

Printed Name of Inspector: JONATH ANDERSON Signature of Inspector: [signature]

Company: UXB - KEMRON

Date remedial action completed: N/A Remedial action approved by: N/A

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP SWMU 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 6 / 14 / 12 Time of Inspection 8 : 15 AM PM

Reason for Inspection: Quarterly/ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	• Erosion ✓ • Settlement, Subsidence, or Displacement ✓ • Pooling ✓	NO DEFICIENCIES NOTED	
Vegetative Cover	• Dead vegetation, or inadequate growth ✓ • Presence of trees, shrubs, or deep rooted vegetation ✓ • Need to fertilize, irrigate, or cut grass ✓	NO DEFICIENCIES NOTED	
PVC Liner (if applicable)	• Liner exposed	N.A	
Peripheral Drainage Swales	• Erosion ✓ • Subsidence ✓ • Pooling ✓	NO DEFICIENCIES NOTED	
Stormwater Drainage Areas	• Erosion ✓ • Subsidence ✓ • Vegetation growth ✓ • Accumulated sediment ✓	NO DEFICIENCIES NOTED	
Security (if applicable)	• Access road in place ✓ • Sign legible and in place • Fences not breached and no visible damage ✓	NO SIGN IN PLACE	
Monitoring Wells • Outer protective casing • Well caps and locks • Concrete pad • Inner cap and riser	• Casing in good condition ✓ • In place and functioning ✓ • Cracks or settlement ✓ • Intact and functioning ✓	NO DEFICIENCIES NOTED	
Benchmarks (2) (if applicable)	• Monuments present and visible • Damage to monument	N/A	

Date and nature of repairs or remedial action: COMPLETED REPAIR OF LOW AREAS - GRADED & RESEEDED REPAIRED AREAS

Printed Name of Inspector: JONAH ANDERSON Signature of Inspector: [signature]

Company: UXB - KEMRON

Date remedial action completed: 6-13-12 Remedial action approved by: JM

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP Sump 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 9 / 27 / 12 Time of Inspection 8 : 45 AM/ PM

Reason for Inspection: Quarterly/ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	• Erosion ✓ • Settlement, Subsidence, or Displacement ✓ • Pooling ✓	NO DEFICIENCIES	
Vegetative Cover	• Dead vegetation, or inadequate growth ✓ • Presence of trees, shrubs, or deep rooted vegetation ✓ • Need to fertilize, irrigate, or cut grass ✓	NO DEFICIENCIES	
PVC Liner (if applicable)	• Liner exposed	N/A	
Peripheral Drainage Swales	• Erosion ✓ • Subsidence ✓ • Pooling ✓	NO DEFICIENCIES	
Stormwater Drainage Areas	• Erosion ✓ • Subsidence ✓ • Vegetation growth ✓ • Accumulated sediment ✓	NO DEFICIENCIES	
Security (if applicable)	• Access road in place ✓ • Sign legible and in place • Fences not breached and no visible damage ✓	NO SIGN IN PLACE	
Monitoring Wells • Outer protective casing • Well caps and locks • Concrete pad • Inner cap and riser	• Casing in good condition ✓ • In place and functioning ✓ • Cracks or settlement ✓ • Intact and functioning ✓	NO DEFICIENCIES	
Benchmarks (2) (if applicable)	• Monuments present and visible • Damage to monument	N/A	

Date and nature of repairs or remedial action: WILL INSTALL SIGN ONCE FINAL APPROVAL OF RCRA PERMIT IS COMPLETE.

Printed Name of Inspector: JONAH ANDERSON Signature of Inspector: [signature]

Company: UXB-KEMRON

Date remedial action completed: — Remedial action approved by: —

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP SWMU 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 6/18/13 Time of Inspection 11 : 30 AM PM

Reason for Inspection: ~~Quarterly/~~ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	• Erosion ✓ • Settlement, Subsidence, or Displacement ✓ • Pooling ✓	NO DEFICIENCIES	
Vegetative Cover	• Dead vegetation, or inadequate growth ✓ • Presence of trees, shrubs, or deep rooted vegetation ✓ • Need to fertilize, irrigate, or cut grass ✓	NO DEFICIENCIES	
PVC Liner (if applicable)	• Liner exposed	N/A	
Peripheral Drainage Swales	• Erosion ✓ • Subsidence ✓ • Pooling ✓	NO DEFICIENCIES	
Stormwater Drainage Areas	• Erosion ✓ • Subsidence ✓ • Vegetation growth ✓ • Accumulated sediment ✓	NO DEFICIENCIES	
Security (if applicable)	• Access road in place ✓ • Sign legible and in place • Fences not breached and no visible damage ✓	NO SIGN IN PLACE	
Monitoring Wells • Outer protective casing • Well caps and locks • Concrete pad • Inner cap and riser	• Casing in good condition ✓ • In place and functioning ✓ • Cracks or settlement ✓ • Intact and functioning ✓	NO DEFICIENCIES	
Benchmarks (2) (if applicable)	• Monuments present and visible • Damage to monument	N/A	

Date and nature of repairs or remedial action: WILL INSTALL SIGN ONCE FINAL APPROVAL OF RCRA PERMIT IS COMPLETED

Printed Name of Inspector: JONAH ANDERSON Signature of Inspector: [signature]

Company: UXB - KEMRON

Date remedial action completed: — Remedial action approved by: —

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP SWMU 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 3 / 27 / 14 Time of Inspection 8 : 45 AM/ PM

Reason for Inspection: Quarterly/ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	• Erosion • Settlement, Subsidence, or Displacement • Pooling	NONE	
Vegetative Cover	• Dead vegetation, or inadequate growth • Presence of trees, shrubs, or deep rooted vegetation • Need to fertilize, irrigate, or cut grass	NONE	
PVC Liner (if applicable)	• Liner exposed	N/A	
Peripheral Drainage Swales	• Erosion • Subsidence • Pooling	NONE	
Stormwater Drainage Areas	• Erosion • Subsidence • Vegetation growth • Accumulated sediment		
Security (if applicable)	• Access road in place • Sign legible and in place • Fences not breached and no visible damage	NONE	PLACED SIGN AT SITE W/ APPROVAL OF RADFORD.
Monitoring Wells Outer protective casing Well caps and locks Concrete pad Inner cap and riser	• Casing in good condition • In place and functioning • Cracks or settlement • Intact and functioning	NONE	
Benchmarks (2) (if applicable)	• Monuments present and visible • Damage to monument	N/A	

Date and nature of repairs or remedial action: _____

Printed Name of Inspector: JONAH ANDERSON Signature of Inspector: [signature]

Company: UXB - KEMRON

Date remedial action completed: _____ Remedial action approved by: _____

INSPECTION OF CLOSED WASTE MANAGEMENT FACILITIES

Name of Waste Management Facility: RFAAP SWMU 40 (RAAP-009)

EPA Permit No. N/A

Date of Inspection 12 / 1 / 14 Time of Inspection 15 : 00 AM/PM

Reason for Inspection: Quarterly/ Major rainfall event (2" in 8 hr period)/ catastrophic event

ITEM	INSPECT FOR	DEFICIENCIES NOTED	REMEDIAL ACTION REQUIRED
Final Soil Cover	Erosion Settlement, Subsidence, or Displacement Pooling	NONE	
Vegetative Cover	Dead vegetation, or inadequate growth Presence of trees, shrubs, or deep rooted vegetation Need to fertilize, irrigate, or cut grass	NONE	
PVC Liner (if applicable)	Liner exposed	N/A	
Peripheral Drainage Swales	Erosion Subsidence Pooling	NONE	
Stormwater Drainage Areas	Erosion Subsidence Vegetation growth Accumulated sediment	NONE	
Security (if applicable)	Access road in place Sign legible and in place Fences not breached and no visible damage	NONE	
Monitoring Wells Outer protective casing Well caps and locks Concrete pad Inner cap and riser	Casing in good condition In place and functioning Cracks or settlement Intact and functioning	NONE	
Benchmarks (2) (if applicable)	Monuments present and visible Damage to monument	N/A	

Date and nature of repairs or remedial action: _____

Printed Name of Inspector: JONAH ANDERSEN Signature of Inspector: [signature]

Company: KEMRON

Date remedial action completed: _____ Remedial action approved by: ___