2016 ANNUAL SOIL MONITORING REPORT

OPEN BURNING GROUND

RADFORD ARMY AMMUNITION PLANT

RADFORD, VIRGINIA

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EXECUTIVE SUMMARY

The Radford Army Ammunition Plant (RFAAP) located in Radford, Virginia is required to perform annual soil monitoring at the facility's Open Burning Ground (OBG) in accordance with Permit Attachment II.C – *Soil Monitoring Program for the Open Burning Ground* of the *Final Permit for the Treatment of Hazardous Waste by Open Burning* (Final Permit; effective date October 28, 2005; modified September 27, 2011, February 22, 2012, November 9, 2012, June 18, 2013, June 12, 2014, and December 1, 2016). The June 12, 2014 Class 1 Permit Modification included the latest update to the Action Levels (ALs) for the soil monitoring constituents (Table 1 of Permit Attachment II.C). This Annual Soil Monitoring Report summarizes activities conducted during calendar year 2016 at the OBG.

The annual soil monitoring event was performed on July 25, 2016, and a verification event to confirm or refute an initial detection of lead in soil above the permit-specified AL at PAD-6 was conducted on September 15, 2016. Final analytical results for the 2016 annual monitoring event indicated that no target analytes were detected at concentrations greater than their respective permit-specified Action Levels (ALs).

Additional activities summarized in this 2016 OBG Annual Soil Monitoring Report include:

(1) RFAAP concluded permit-required interim measures resulting from a hot spot nitroglycerin detection in soil at sample location PAD-3 during the July 2014 OBG annual soil monitoring event. VDEQ approval was received on June 28, 2016 and no further action is required (see Appendix G, OBG VDEQ Review of 2015 OBG Annual Soil Monitoring Report Correspondence - June 28, 2016 - page 4, comment 2, VDEQ response 1).

(2) VDEQ approved the Quantitative Human Health Risk Assessment for the OBG soils on August 2, 2016 and no further action is required. The OBG Soil Risk Assessment effort is complete and all correspondence associated with the VDEQ approved OBG Soil Risk Assessment is provided in Appendix G – OBG Soil Risk Assessment Correspondence.

(3) RFAAP submitted the OBG Permit Renewal application to VDEQ in 2015 and the permit renewal is pending.

(4) RFAAP addressed all VDEQ comments associated with the 2015 OBG Annual Soil Monitoring Report and associated correspondence is provided in Appendix G (see Appendix G – VDEQ Review of 2015 OBG Annual Soil Monitoring Report Correspondence). VDEQ review of the 2015 OBG Annual Soil Monitoring Report, revised February 2017, is pending.

1.0 INTRODUCTION

This document presents the 2016 Annual Soil Monitoring Report for the Open Burning Ground (OBG) located at the Radford Army Ammunition Plant (RFAAP) in Radford, Virginia. This Annual Soil Monitoring Report summarizes activities conducted at the OBG during calendar year 2016. The Annual Soil Monitoring Report was compiled in accordance with the requirements specified in Permit Attachment II.C – *Soil Monitoring Program for the Open Burning Ground,* which is included in the *Final Permit for the Treatment of Hazardous Waste by Open Burning* (Final Permit; effective date October 28, 2005; modified in VDEQ-approved Permit Modifications dated September 27, 2011, February 22, 2012, November 9, 2012, June 18, 2013, June 12, 2014, and December 1, 2016). The June 12, 2014 Permit Modification included the latest update to the facility's Action Levels (ALs) for the soil monitoring constituents (Table 1 of Permit Attachment II.C).

This report presents background information for the OBG soil monitoring program, a description of the permit requirements for soil sampling and reporting, sample collection and analytical methods, data validation results, and analytical results. The report also summarizes additional activities conducted in 2016.

2.0 SITE BACKGROUND

RFAAP is located in the Valley and Ridge Physiographic Province in southwestern Virginia along the New River in Pulaski and Montgomery counties and is divided into two sections by the river. The southern section, which comprises two-thirds of the facility, is known as the Main Plant Area. The northern one-third of the property, which includes the OBG, is known as the Horseshoe Area.

The OBG serves as the waste propellant burning ground for the RFAAP facility. Material that cannot be burned in the Explosive Waste Incinerators is burned at the OBG. The OBG is located within the 100-year floodplain of the New River at the southeastern end of the Horseshoe Area. The OBG is relatively flat and is located at an approximate elevation of 1,695 feet above Mean Sea Level (MSL). The site slopes steeply upward 75 to 100 feet north of the unit.

The geology at RFAAP consists of the Cambrian-aged Elbrook Formation comprising limestone and dolomite with some shale and siltstone, covered by weathered residual deposits and/or alluvial deposits. The alluvial deposits have an average thickness of approximately 13 to 20 feet and consist of typical fluvial deposits of interbedded clay, silt, and sand/gravel deposits with lenses of cobbles. In portions of the site, the alluvial deposits and bedrock are separated by residual deposits, which consist of clay, silt, and clasts resulting from weathering of the parent bedrock. The residuum thickness on the site ranges from a few feet to up to 40 feet depending on the location.

The OBG is underlain by the Wheeling Silty Loam, which is characterized by low slopes. The unit includes a surface layer of approximately 10 inches of dark brown sandy loam underlain by 50 inches of dark brown gravelly sandy loam subsoil. At depths greater than 60 inches, the soil is predominantly a mixture of silt and sand with minor amounts of clay.

The general hydrogeologic setting for RFAAP is characterized by alluvial sediments overlying weathered and unweathered dolomite and limestone bedrock. In areas where alluvial sediments form the uppermost water-bearing zone, groundwater flow is generally from topographically high areas to topographically low areas. In some areas of the facility, the uppermost water-bearing zone is located within bedrock. Karst features within the bedrock aquifer can provide conduits for transport of groundwater to the New River, which is the discharge area for regional groundwater flow.

3.0 SOIL MONITORING PROGRAM REQUIREMENTS

The *Soil Monitoring Program for the Open Burning Ground* (SMP; Permit Attachment II.C) was developed to monitor the OBG for potential effects to surface soils resulting from the facility operations. Implementation of the SMP will continue throughout the lifetime of the Resource Conservation & Recovery Act (RCRA) Operating Permit for the OBG facility. The SMP requires soil sampling at prescribed locations as shown on **Figure 1** in **Appendix A**. Initially, the SMP required semiannual soil sampling; however, the sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the VDEQ in correspondence dated September 27, 2011. The annual soil monitoring event for 2016 was conducted on July 25, 2016, and a verification event to confirm or refute an initial detection of lead in soil above the permit-specified AL at PAD-6 was conducted on September 15, 2016. The annual soil monitoring event and verification event were conducted in accordance with the SMP and the Class 1 Permit Modification dated June 12, 2014, which updated the ALs.

As the SMP is designed to evaluate potential effects to the site by airborne deposition, soil sample collection targets the uppermost soil horizon. Sample locations were selected to represent the areas of greatest potential to be affected and are located between the burn pans of each burn pad. Each pad is defined as the area of raised topography that contains two individual burn pans. Burn pans are the ceramic or clay-lined vessels that hold waste propellant before and during the open burning process. The actual sample locations correspond to areas of low topography between each pan that function as runoff conduits for the pads. These areas are erosion channels that flow toward the river-side berm and to the pond that precedes Outfall 017. The channels are not vegetated.

In addition to the eight soil samples collected adjacent to the burn pans (PAD 1-8), two discrete grab soil samples (SB-1 and SB-2) were collected along the southern boundary of the OBG along the New River. Two soil samples (NB-1 and NB-2) were also collected in the grassed median north of the burn pads. In addition, one grab soil sample (BERM-1) was collected at the southeast corner of the OBG inside the berm, and one grab soil sample (POND-1) was collected at the bottom of the sediment basin. According to the Final Permit, if no constituents are detected at the additional monitoring locations (SB-1, SB-2, NB-1, NB-2, BERM-1, and POND-1) above their respective permit-specified Action Limits (ALs), RFAAP may petition VDEQ to cease sampling at these additional locations. To date, no constituents have been detected at these additional monitoring locations at concentrations above their respective ALs.

In accordance with the SMP, the analytical results for the July and September 2016 annual soil monitoring event were compiled, evaluated, and interpreted upon receipt from the laboratory to determine whether concentrations of constituents of potential concern (COPCs) in soil are greater than the designated ALs. Analytical results from the July 2016 annual soil monitoring event and September 2016 verification event were compared to the ALs updated in 2014 as approved by VDEQ in the Class 1 Permit Modification dated June 12, 2014. The results of the data evaluation from the July and September 2016 events are summarized in this Annual Soil Monitoring Report.

4.0 SAMPLE COLLECTION

The annual soil monitoring event for calendar year 2016 was performed on July 25, 2016 and a verification event was performed on September 15, 2016 in accordance with the requirements of the OBG SMP. Approximate soil sample locations are shown on **Figure 1** in **Appendix A**. Soil samples collected during the annual monitoring event were analyzed for the COPCs as listed in the SMP and as shown on **Tables 1**, **2A**, **2B,** and **3** in **Appendix B**. A copy of the COPC list from the SMP (as updated by the VDEQ in the Class 1 Permit Modification dated June 12, 2014) is included in **Appendix C**.

Initial laboratory results indicated a detection of lead in soil sample PAD-6 at a concentration greater than the permit-specified AL. Therefore, a verification sampling event was performed on September 15, 2016 to confirm or refute the initial lead result in sample PAD-6.

Soil samples were collected from the uppermost six inches of soil using dedicated stainless steel tulip bulb samplers as described in the ASTM International (ASTM) *Standard Guide for Soil Sampling in the Vadose Zone, Designation D 4700-91* (reapproved 1998). Each dedicated sampler is labeled with the corresponding sample location. At each required sample location, the sample aliquot for hexavalent chromium was collected using a dedicated plastic composite trowel.

Samples were collected from the lowest point in the swale between the pans at each burn pad. In order to determine the appropriate sample location, the center of each pan was located using a measuring tape. The lowest point in the swale was marked along a line connecting the centers of the burn pans. Samples PAD-1 through PAD-8 were collected from the designated low point in accordance with the sample collection procedure outlined in the SMP. Also, two discrete grab samples (SB-1 and SB-2) were collected along the southern boundary of the OBG along the New River, in the grassed median north of the burn pads (NB-1 and NB-2), at the southeast corner of the OBG inside the berm (BERM-1), and at the bottom of the sediment basin (POND-1). For analytical quality assurance/quality control (QA/QC) purposes, a blind field duplicate sample (PAD-X), trip and equipment blanks were submitted. A trip blank was analyzed for volatile organics only. The equipment blank was analyzed for all permit required constituents. Copies of chains-of-custody (COCs) and field notes are included in **Appendix D**.

The dedicated samplers were cleaned prior to and following sample collection in accordance with equipment decontamination procedures outlined in the SMP. Equipment rinsate water generated during the sampling events was containerized and taken to the RFAAP Biological Wastewater Treatment Plant for disposal.

Samples were shipped in coolers under appropriate chain-of-custody. Sample coolers were shipped via overnight courier service to the analytical laboratory. Results were generated from a laboratory accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP).

5.0 SOIL ANALYTICAL DATA EVALUATION

Soil samples collected during the July 25, 2016 annual monitoring event were analyzed for the COPCs listed in the SMP (as updated by VDEQ-approved Permit Modifications dated September 27, 2011 and June 12, 2014; **Appendix C**). The verification sample collected on September 15, 2016 from location PAD-6 was analyzed for lead only. Samples were analyzed using analytical methods set forth in U.S. Environmental Protection Agency (USEPA) *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846). Analyses were performed by Eurofins-Lancaster Laboratories Environmental, Inc. (ELLE) of Lancaster, Pennsylvania; TestAmerica North Canton of North Canton, Ohio; TestAmerica Knoxville of Knoxville, Tennessee; and Microbac Laboratories, Ohio Valley Division (Microbac) of Marietta, Ohio. Laboratory analytical data were validated in accordance with the SMP.

The COPCs detected at concentrations greater than their respective method detection limits (MDLs) during the July 2016 annual soil monitoring event and September 2016 verification event are summarized in **Tables 2A** and **2B** in **Appendix B**. Dioxin/furan results for the July 2016 annual soil monitoring event are summarized in **Table 3** in **Appendix B**. Comparisons of detected constituent concentrations with their respective ALs (as updated in June 2014) are also included in **Tables 2A, 2B,** and **3**.

As summarized in **Tables 2A, 2B,** and **3**, a total of 35 COPCs were detected at concentrations equal to or greater than their respective method detection limit (MDL) in the soil samples collected during the July 2016 event. Of the 35 COPCs detected, 20 were classified as carcinogens, 14 were classified as non-carcinogens and 1 was classified as "unclassifiable" (dimethyl phthalate). The determination of whether a specific COPC is a carcinogen or a non-carcinogen is dependent upon that constituent's classification in the May 2016 USEPA Region III Regional Screening Level (RSL) Summary Table and/or its classification in the USEPA Integrated Risk Information System (IRIS; website www.epa.gov/iris; accessed on January 3, 2016). For the purposes of this evaluation, the constituent total petroleum hydrocarbons-diesel range organics (TPH-DRO) is classified as a carcinogen due to the fact that several of the component constituents of TPH-DRO are classified as carcinogens. The 20 carcinogenic COPCs detected included the following: arsenic, lead, chromium, 2-nitrotoluene, 4-nitrotoluene, 2,4-dinitrotoluene; 2,6-dinitrotoluene; 2,4,6-trinitrotoluene; benzene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene; bis(2-ethylhexyl) phthalate, hexavalent chromium, TPH-DRO, naphthalene and dioxins/furans.

The 14 non-carcinogenic COPCs detected during the July 2016 event included the following: barium, cadmium, mercury, selenium, perchlorate, nitroglycerin, HMX, diethyl phthalate, di-n-butyl phthalate, diphenylamine, 2-amino-4,6-dinitrotoluene; 4-amino-2,6-dinitrotoluene; fluoranthene and 1,3,5-trinitrobenzene. As specified in the Permit, if ten or more non-carcinogenic COPCs are detected during a single sampling event, the concentrations are compared to 1/10 the RSL of those constituents. This comparison is a qualitative evaluation that has no bearing on the risk evaluation of the site, and does not trigger corrective actions or interim measures at the site. A summary of the 14 non-carcinogenic COPCs detected during the July 2016 event with comparisons to 1/10 the RSLs is included in **Table 4** (**Appendix B**).

Initial laboratory results indicated the detection of lead in soil sample PAD-6 at a concentration greater than the permit-specified AL of 800 mg/kg. A verification event to confirm or refute the initial lead result in sample PAD-6 was conducted on September 15, 2016. The verification result was less than the AL; therefore, no additional action was required.

The VDEQ requested notification if 3,3-dimethylbenzidine is detected less than the Reporting Limit (RL), since the RL for this analyte, 1 mg/kg, and detection limit (DL), 0.5 mg/kg are greater than the AL of 0.16 mg/kg. For sample location PAD-6, the RL and DL for 3,3-dimethylbenzidine was adjusted due to sample dilution required to accurately quantitate a result for another target analyte. For this event, 3,3-dimethylbenzidine was not detected at or above the RL, DL, or the adjusted RL or the adjusted DL in any sample. Soil samples will continue to be analyzed for 3,3-dimethylbenzidine during future events. The adjusted RL and DL for 3,3-dimethylbenzidine at PAD-6 is provided below. It should be noted that the recently completed and VDEQ approved Quantitative Human Health Risk Assessment for the OBG soils included 3,3-dimethylbenzidine and no further action was required.

Location	Result (mg/kg)	Adjusted RL (mg/kg)	Adjusted DL (mg/kg)	Action Level (mg/kg)	Action level Basis
3,3-Dimethylbenzidine					
PAD-6	ND	11	5.3	0.16	Region III RSL Industrial (RSL Table dated Nov 2013)

Note: ND Denotes not detected at or above detection limit or reporting limit. Sample analyzed at a 1:10 dilution.

Historical soil results are included in **Appendix E**. The complete laboratory certificates of analysis and data validation reports for the July 2016 annual soil monitoring event and the September 2016 verification event are included in **Appendix F**. Copies of correspondence notifying VDEQ of the results of soil sampling conducted at the OBG during the timeframe for this report are included as **Appendix G**.

6.0 CONCLUSIONS

Based on an evaluation of the soil analytical data for the OBG, no constituents of potential concern were detected at concentrations greater than permit-specified ALs (updated and approved June 12, 2014) during the annual soil monitoring event performed during calendar year 2016.

Additional activities summarized in this 2016 OBG Annual Soil Monitoring Report include:

(1) RFAAP concluded permit-required interim measures resulting from a hot spot nitroglycerin detection in soil at sample location PAD-3 during the July 2014 OBG annual soil monitoring event. VDEQ approval was received on June 28, 2016 and no further action is required (see Appendix G, OBG VDEQ Review of 2015 OBG Annual Soil Monitoring Report Correspondence - June 28, 2016 - page 4, comment 2, VDEQ response 1).

(2) VDEQ approved the Quantitative Human Health Risk Assessment for the OBG soils on August 2, 2016 and no further action is required. The OBG Soil Risk Assessment effort is complete and all correspondence associated with the VDEQ approved OBG Soil Risk Assessment is provided in Appendix G – OBG Soil Risk Assessment Correspondence.

(3) RFAAP submitted the OBG Permit Renewal application to VDEQ in 2015 and the permit renewal is pending.

(4) RFAAP addressed all VDEQ comments associated with the 2015 OBG Annual Soil Monitoring Report and associated correspondence is provided in Appendix G (see Appendix G – VDEQ Review of 2015 OBG Annual Soil Monitoring Report Correspondence). VDEQ review of the 2015 OBG Annual Soil Monitoring Report, revised February 2017, is pending.

7.0 SIGNATURE/CERTIFICATION

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I certify that I have supervised preparation of the attached report, that it has been prepared in accordance with industry standards and practices, and that the information contained herein is truthful and accurate to the best of my knowledge.

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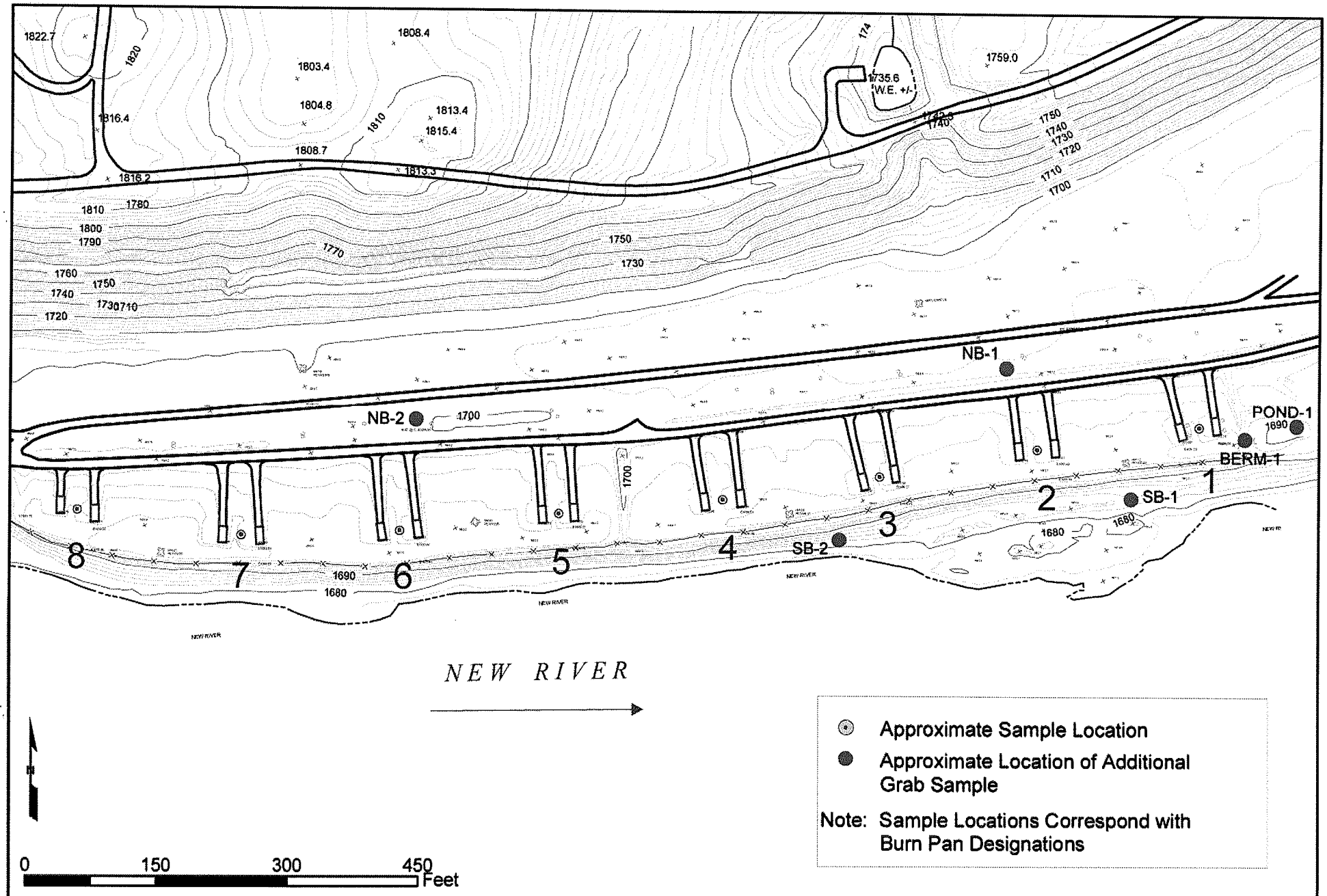
APPENDIX A

FIGURES



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Date: August 28, 2006

FIGURE 1
Sample Location Map
Open Burning Ground; Radford Army Ammunition Plant; Radford, Virginia

APPENDIX B

TABLES

Table 1 - Sample Analytical Requirements
Open Burning Ground - Soil Monitoring Program

Sample Location ID	Sample Analytical Method								
	VOCs (8260)	SVOCs (8270)	RCRA Metals (6010/6020/7471)	Chromium, hexavalent (7196)	Perchlorate (6850)	Dioxins/Furans (8290)	Explosives (8330)	Nitroglycerine (8330)	TPH-DRO (8015)
PAD-1	X	X	X	X	X	X	X	X	X
PAD-2	X	X	X	X	X	X	X	X	
PAD-3	X	X	X	X	X	X	X	X	
PAD-4	X	X	X	X	X	X	X	X	X
PAD-5	X	X	X	X	X	X	X	X	
PAD-6	X	X	X	X	X	X	X	X	
PAD-7	X	X	X	X	X	X	X	X	X
PAD-8	X	X	X	X	X	X	X	X	
NB-1	X	X	X			X	X	X	
NB-2	X	X	X			X	X	X	
SB-1	X	X	X			X	X	X	
SB-2	X	X	X			X	X	X	
BERM-1	X	X	X			X	X	X	
POND-1	X	X	X			X	X	X	

Notes:
X indicates sample was analyzed for corresponding analytical method.
Each method was performed for certain Constituents of Potential Concern (COPCs), which are listed on the COPC list included in Appendix C of this Annual Soil Monitoring Report.

- Mecury (Method 7471) analyzed at PAD locations only.

Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
7/25/2016	U		U		U		0.0995	J	U		U		U		U		-		-		-		0.25	27000	8330B	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330B	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
7/25/2016	0.109	J	0.836		U		0.495		U		0.664		U		U		0.277		U		0.96		0.25	79	8330B	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
7/25/2016	U		0.18	J	U		0.213	J	0.205	J	1.74	J	U		U		U		U		0.49		0.25	5.5	8330B	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
7/25/2016	U		U		U		0.104	J	U		U		U		U		-		-		-		0.25	1.2	8330B	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
7/25/2016	U		U		U		U		U		U		U		U		U		U		0.226	J	0.25	2000	8330B	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
7/25/2016	U		0.13	J	U		U		U		U		U		U		-		-		-		0.25	13	8330B	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
7/25/2016	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 108-39-4*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	31000	8270D	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330B	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
7/25/2016	U		0.381		U		U		U		0.114	J	U		U		U		U		U		0.25	1900	8330B	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	62000	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
7/25/2016	U		0.1	J	U		U		U		U		U		U		-		-		-		0.25	110	8330B	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
7/25/2016	2.1		3		2.2		2.7		2.2		1.7		2		2.3		1.8		3.2		3.1		1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
7/25/2016	140		110		76		84		87		51		96		77		420		100		110		20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
7/25/2016	U		0.001	J	U		0.001	J	0.001	J	U	J	U		U		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
7/25/2016	U		0.004	J	U		0.007	J	0.064		U		U		U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
7/25/2016	0.004	J	0.004	J	U		0.015	J	0.073	J	U	J	U		U		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
7/25/2016	0.004	J	0.012	J	0.005	J	0.033	J	0.17	J	U	J	0.005	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
7/25/2016	0.004	J	0.006	J	U		0.014	J	0.082	J	U	J	U		U		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
7/25/2016	U		U		U		U	J	U	J	U	J	U		U		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
7/25/2016	U		0.2		U		0.1	J	U		U		U		U		U		U		0.61		0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
7/25/2016	U		U		U		U		U		U	J	U		U		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
7/25/2016	0.099	J	0.49		0.067	J	0.28	J	0.15	J	0.2	J	0.096	J	0.055	J	0.077	J	0.3	J	0.49	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
7/25/2016	U		0.24	J	U		0.19	J	U		1.5		U		2.2		-		-		-		1	5.6	7196A	mg/kg

See last page of this report for definitions.

Draper Aden Associates
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Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
7/25/2016	12	J	16	J	16	J	13	J	13	J	33	J	11	J	17	J	10	J	19	J	21	J	1		6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
7/25/2016	0.004	J	0.007	J	U		0.008	J	0.021	J	U	J	U		U		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
7/25/2016	U	J	0.24	J	0.11	J	4.3	J	0.18	J	8.5	J	0.083	J	U	J	0.082	J	U	J	0.87	J	0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
7/25/2016	U	J	U	J	U	J	0.51	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.33	10000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
7/25/2016	1.7	J	2.8	J	1.2	J	0.94	J	1.5	J	22	J	0.88	J	1.6	J	0.14	J	U		0.68	J	0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
7/25/2016	U		0.005	J	0.004	J	0.019	J	0.16		U		U		U		-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	43	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
7/25/2016	U		U		U		U		U		U		U		U		1.42		U		U		2.2	49000	8330B	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
7/25/2016	0.007	J	0.011	J	U		0.015	J	0.076	J	U	J	U		U		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
7/25/2016	40	J	280	J	40	J	150	J	130	J	530		83	J	500	J	67	J	64	J	160	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
7/25/2016	U		0.022	J	U		U		U		0.019	J	U		U		-		-		-		0.1	43	7471A	mg/kg
Methylene Chloride					*CAS #: 75-09-2*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	960	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
7/25/2016	U		U		U		0.13		U		U		U		U		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.25	24	8330B	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
7/25/2016	7.7	J	2.82	J	5.56	J	36	J	19.3	J	23.5	J	12.8	J	U	J	19.3	J	U		2.84		2.5	62	8330B	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
7/25/2016	0.17	J	0.11	J	0.12	J	0.28	J	0.097	J	0.93	J	0.12	J	0.13	J	0.11	J	U	J	0.045	J	1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
7/25/2016	U		U		0.00885	J	U		0.00146	J	0.0138	J	U		U		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.33	180000	8270D	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		1	24	8330B	mg/kg
Selenium					*CAS #: 7782-49-2*																					
7/25/2016	0.45	J	U		0.45	J	0.55	J	U		U		U		U		U		0.56	J	0.75	J	1	5100	6010C	mg/kg
Silver					*CAS #: 7440-22-4*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	110	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
7/25/2016	U		U		U		U		U		U		U		U		-		-		-		0.65	1200	8330B	mg/kg
Toluene					*CAS #: 108-88-3*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
7/25/2016	130		-		-		35		-		-		9.7	J	-		-		-		-		20	11000	8015C	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
7/25/2016	U		U		U		U		U		U	J	U		U		U		U		U		0.005	6.4	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
7/25/2016	U		U		U		U		U		U	J	U		U		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification updated June 2014). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. However, RLs, QLs and method detection limit (DL) are less than the AL except where noted with an "A" qualifier. See data validation for actual laboratory QL. **Q** Denotes data validation qualifie
U Denotes analyte not detected at or above DL. **AL** Denotes permit Action limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification, updated June 2014).
J Denotes is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled.
NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
For the April 2013 event, Method 8270D aliquots for POND-1 were recollected on September 10, 2013.

Note 1: Diphenylamine and N-nitrosodiphenylamine are indistinguishable when trying to analyze for them because N-nitrosodiphenylamine may transform into Diphenylamine.

Note 2: 2016 verification event for lead at PAD-6 was conducted 9/15/2016. Final result presented for lead PAD-6 is the verificaton result.

Note 3: 3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. 3-Methylphenol and 4-methylphenol as reported represent the combined total of both analytes.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					CAS #: 75-35-4																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					CAS #: 107-06-2																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					CAS #: 99-35-4																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	27000	8330B	mg/kg
1,3-Dinitrobenzene					CAS #: 99-65-0																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330B	mg/kg
2,4,6-Trinitrotoluene					CAS #: 118-96-7																					
7/25/2016	-		-		-		-		-		-		-		-		0.201	J	U		0.413		0.25	79	8330B	mg/kg
2,4-Dichlorophenol					CAS #: 120-83-2																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					CAS #: 121-14-2																					
7/25/2016	-		-		-		-		-		-		-		-		U		U		0.505		0.25	5.5	8330B	mg/kg
2,6-Dinitrotoluene					CAS #: 606-20-2																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	1.2	8330B	mg/kg
2-Amino-4,6-Dinitrotoluene					CAS #: 35572-78-2																					
7/25/2016	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	8330B	mg/kg
2-Chlorophenol					CAS #: 95-57-8																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					CAS #: 88-72-2																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	13	8330B	mg/kg
3,3'-Dimethylbenzidine					CAS #: 119-93-7																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					CAS #: 108-39-4																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	31000	8270D	mg/kg
3-Nitrotoluene					CAS #: 99-08-1																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330B	mg/kg
4-Amino-2,6-Dinitrotoluene					CAS #: 19406-51-0																					
7/25/2016	-		-		-		-		-		-		-		-		U		U		0.111	J	0.25	1900	8330B	mg/kg
4-Methylphenol					CAS #: 106-44-5																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	62000	8270D	mg/kg
4-Nitrophenol					CAS #: 100-02-7																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					CAS #: 99-99-0																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	110	8330B	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
7/25/2016	-		-		-		-		-		-		-		-		2.4		1.2	J	2.6		1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
7/25/2016	-		-		-		-		-		-		-		-		120		63		100		20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
7/25/2016	-		-		-		-		-		-		-		-		0.61		0.25		0.23		0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
7/25/2016	-		-		-		-		-		-		-		-		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
7/25/2016	-		-		-		-		-		-		-		-		0.35	J	0.14	J	0.16	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		1	5.6	7196A	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
7/25/2016	-		-		-		-		-		-		-		-		17	J	7.4	J	15	J	1		6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
7/25/2016	-		-		-		-		-		-		-		-		2.1	J	0.35	J	0.21	J	0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
7/25/2016	-		-		-		-		-		-		-		-		0.17	J	0.74	J	U	J	0.33	10000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
7/25/2016	-		-		-		-		-		-		-		-		0.84	J	0.37	J	0.22	J	0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	43	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
7/25/2016	-		-		-		-		-		-		-		-		U		U		U		2.2	49000	8330B	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
7/25/2016	-		-		-		-		-		-		-		-		170	J	110	J	120	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.1	43	7471A	mg/kg
Methylene Chloride					*CAS #: 75-09-2*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	960	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.25	24	8330B	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
7/25/2016	-		-		-		-		-		-		-		-		2.5		1.41		14.5		2.5	62	8330B	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
7/25/2016	-		-		-		-		-		-		-		-		0.14	J	U	J	0.24	J	1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.33	180000	8270D	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		1	24	8330B	mg/kg
Selenium					*CAS #: 7782-49-2*																					
7/25/2016	-		-		-		-		-		-		-		-		0.49	J	U		U		1	5100	6010C	mg/kg
Silver					*CAS #: 7440-22-4*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	110	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.65	1200	8330B	mg/kg
Toluene					*CAS #: 108-88-3*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		20	11000	8015C	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
7/25/2016	-		-		-		-		-		-		-		-		U		U		U		0.005	6.4	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
7/25/2016	-		-		-		-		-		-		-		-		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above DL. AL Denotes permit Action limit.
J Denotes result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Denotes laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled. **AL and RL** obtained from permit modification – Table 1 Attachment II.C-23-24, updated June 2014, Class I Permit Mod

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the RL and AL unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and AL unless noted.

Note 1: Diphenylamine and N-nitrosodiphenylamine are indistinguishable when trying to analyze for them because N-nitrosodiphenylamine may transform into Diphenylamine.

Note 2: 2016 verification event for lead at PAD-6 was conducted 9/15/2016. Final result presented for lead PAD-6 is the verificaton result.

Note 3: 3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. 3-Methylphenol and 4-methylphenol as reported represent the combined total of both analytes.

Table 3
Summary of Method 8290A Dioxin/Furan Results
July 25, 2016 - Annual Open Burning Ground (OBG) Soil Monitoring Program
Calculation of 2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Army Ammunition Plant (RFAAP), Radford, Virginia
All results presented in ng/kg=pg/g=ppt

Sample Location ID			PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Action	Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				9.8	0.098			24	0.24			7.3	0.073			22	0.22
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	U		BJ	U	U		BJ	U	U		BJ	U	U	
1,2,3,4,7,8,9-HpCDF	0.01		QBJ	U	U		BJ	U	U			U	ND		QBJ	U	U	
1,2,3,4,7,8-HxCDD	0.1		J	J	0.29	0.029	J	J	0.47	0.047		U	ND		QJ	J	0.54	0.054
1,2,3,4,7,8-HxCDF	0.1		QBJ	U	U		CBJ	U	U		BJ	U	U		CBJ	U	U	
1,2,3,6,7,8-HxCDD	0.1		QJ	J	0.6	0.06	J	J	1.6	0.16		U	ND		J	J	1.4	0.14
1,2,3,6,7,8-HxCDF	0.1		J	J	0.24	0.024	QJ	J	0.62	0.062		U	ND		QJ	J	0.42	0.042
1,2,3,7,8,9-HxCDD	0.1		CJ	J	0.71	0.071	CJ	J	1.5	0.15	QJ	J	0.18	0.018	CJ	J	1.6	0.16
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		QBJ	U	U		QBJ	U	U		QBJ	U	U		QBJ	U	U	
1,2,3,7,8-PeCDF	0.03		QJ	J	0.19	0.0057	J	J	0.42	0.0126		U	ND		QJ	J	0.27	0.0081
2,3,4,6,7,8-HxCDF	0.1		QJ	J	0.19	0.019	J	J	0.75	0.075	QJ	J	0.077	0.0077	J	J	0.26	0.026
2,3,4,7,8-PeCDF	0.3		QJ	J	0.2	0.06	QJ	J	0.77	0.231	QJ	J	0.088	0.0264	QJ	J	0.46	0.138
2,3,7,8-TCDD	1			U	ND		J	J	0.088	0.088		U	ND		QJ	J	0.15	0.15
2,3,7,8-TCDF	0.1		QJ	J	0.2	0.02	QJ	J	0.77	0.077	J	J	0.07	0.007	QJ	J	0.86	0.086
OCDD	0.0003		B	J	94	0.0282	B	J	290	0.087	B	J	500	0.15	B	J	250	0.075
OCDF	0.0003		BJ	U	U		B		11	0.0033	QBJ	U	U		BJ	U	U	
Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.41***		**J**		***1.23***		**J**		***0.28***		**J**		***1.10***

Sample Location ID			PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Action	Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				11	0.11			36	0.36			11	0.11			6.6	0.066
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	U		BJ	U	U		BJ	U	U	U	BJ	U	U	
1,2,3,4,7,8,9-HpCDF	0.01		QBJ	U	U		QBJ	U	U		QBJ	U	U		QBJ	U	U	
1,2,3,4,7,8-HxCDD	0.1		J	J	0.35	0.035	J	J	0.8	0.08	J	J	0.3	0.03	J	J	0.16	0.016
1,2,3,4,7,8-HxCDF	0.1		CBJ	U	U		CBJ	U	U		CBJ	U	U		QBJ	U	U	
1,2,3,6,7,8-HxCDD	0.1		QJ	J	0.75	0.075	J	J	2	0.2	J	J	0.55	0.055	QJ	J	0.32	0.032
1,2,3,6,7,8-HxCDF	0.1		QJ	J	0.44	0.044	QJ	J	0.69	0.069	J	J	0.35	0.035	QJ	J	0.15	0.015
1,2,3,7,8,9-HxCDD	0.1		CJ	J	0.97	0.097	CJ	J	2.5	0.25	CJ	J	0.81	0.081	CJ	J	0.47	0.047
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		QBJ	U	U		QBJ	U	U		QBJ	U	U			U	ND	
1,2,3,7,8-PeCDF	0.03		J	J	0.29	0.0087	J	J	0.47	0.0141	J	J	0.24	0.0072		U	ND	
2,3,4,6,7,8-HxCDF	0.1		J	J	0.6	0.06	J	J	0.48	0.048	J	J	0.21	0.021		U	ND	
2,3,4,7,8-PeCDF	0.3		J	J	0.58	0.174	QJ	J	0.72	0.216	J	J	0.3	0.09	QJ	J	0.12	0.036
2,3,7,8-TCDD	1			U	ND		J	J	0.18	0.18	QJ	J	0.073	0.073		U	ND	
2,3,7,8-TCDF	0.1		QJ	J	0.49	0.049	J	J	0.86	0.086	QJ	J	0.28	0.028	J	J	0.29	0.029
OCDD	0.0003			J	130	0.039		J	380	0.114		J	110	0.033	B	J	220	0.066
OCDF	0.0003		BJ	U	U		B		12	0.0036	BJ	U	U		BJ	U	U	
Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.69***		**J**		***1.62***		**J**		***0.6***		**J**		***0.31***

Table 3
Summary of Method 8290A Dioxin/Furan Results
July 25, 2016 - Annual Open Burning Ground (OBG) Soil Monitoring Program
Calculation of 2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Army Ammunition Plant (RFAAP), Radford, Virginia
All results presented in ng/kg=pg/g=ppt

Sample Location ID			POND-1				SB-1				SB-2				PAD-XX (Blind Dup. - PAD-1)			
Depth		Action	Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				20	0.2			45	0.45			83	0.83		J	4	0.04
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	U		B		7	0.07	B		16	0.16	BJ	U	U	
1,2,3,4,7,8,9-HpCDF	0.01		QBJ	U	U			U	ND		BJ	U	U			U	ND	
1,2,3,4,7,8-HxCDD	0.1		J	J	0.47	0.047	QJ	J	0.58	0.058	J	J	1.6	0.16	QJ	J	0.11	0.011
1,2,3,4,7,8-HxCDF	0.1		CBJ	U	U		CBJ	U	U		CB		6.6	0.66	CBJ	U	U	
1,2,3,6,7,8-HxCDD	0.1		J	J	1.3	0.13	J	J	1.2	0.12	J	J	3.2	0.32	QJ	J	0.31	0.031
1,2,3,6,7,8-HxCDF	0.1		QJ	J	0.41	0.041	QJ	J	0.51	0.051	QJ	J	2.9	0.29	J	J	0.14	0.014
1,2,3,7,8,9-HxCDD	0.1		CJ	J	1.4	0.14	CJ	J	1.7	0.17	CJ	J	4.5	0.45	CJ	J	0.42	0.042
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		BJ	U	U		QBJ	U	U		QBJ	U	U		QBJ	U	U	
1,2,3,7,8-PeCDF	0.03		QJ	J	0.25	0.0075	QJ	J	0.19	0.0057	J	J	2.7	0.081	QJ	J	0.071	0.00213
2,3,4,6,7,8-HxCDF	0.1		J	J	0.45	0.045	J	J	0.33	0.033	J	J	2.6	0.26	QJ	J	0.1	0.01
2,3,4,7,8-PeCDF	0.3		J	J	0.39	0.117	QJ	J	0.29	0.087		J	4	1.2	J	J	0.11	0.033
2,3,7,8-TCDD	1.0			U	ND			U	ND		J	J	0.15	0.15		U	ND	
2,3,7,8-TCDF	0.1		QJ	J	0.58	0.058	J	J	0.14	0.014			4.2	0.42	QJ	J	0.11	0.011
OCDD	0.0003		B	J	210	0.063	B	J	1300	0.39	B	J	2300	0.69	B	J	38	0.0114
OCDF	0.0003		BQJ	U	U		B		24	0.0072			25	0.0075	QBJ	U	U	
Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.85***		**J**		***1.46***		**J**		***5.68***		**J**		***0.21***

Sample Location ID			BERM-1				NB-1				NB-2			
Depth		Action	Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			U	21	0.21			31	0.31			25	0.25
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	U		B		7.4	0.074	BJ	U	U	
1,2,3,4,7,8,9-HpCDF	0.01		BJ	U	U		QBJ	U	U		QBJ	U	U	
1,2,3,4,7,8-HxCDD	0.1		QJ	J	0.37	0.037	J	J	0.65	0.065	QJ	J	0.52	0.052
1,2,3,4,7,8-HxCDF	0.1		CBJ	U	U		BCJ	U	U		CBJ	U	U	
1,2,3,6,7,8-HxCDD	0.1		J	J	1.7	0.17	J	J	1.5	0.15	J	J	1.1	0.11
1,2,3,6,7,8-HxCDF	0.1		J	J	0.69	0.069	J	J	0.94	0.094	QJ	J	0.59	0.059
1,2,3,7,8,9-HxCDD	0.1		CJ	J	1.5	0.15	CJ	J	2.2	0.22	CJ	J	1.7	0.17
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND				ND	
1,2,3,7,8-PeCDD	1.0		QBJ	U	U		QBJ	U	U		QBJ	U	U	
1,2,3,7,8-PeCDF	0.03		J	J	0.34	0.0102	J	J	0.86	0.0258	QJ	J	0.58	0.0174
2,3,4,6,7,8-HxCDF	0.1		J	J	0.47	0.047	J	J	0.76	0.076	QJ	J	0.36	0.036
2,3,4,7,8-PeCDF	0.3		J	J	0.7	0.21	J	J	1	0.3	J	J	0.68	0.204
2,3,7,8-TCDD	1.0		QJ	J	0.11	0.11		U	ND		QJ	J	0.054	0.054
2,3,7,8-TCDF	0.1		QJ	J	0.29	0.029			1.7	0.17	J	J	1.1	0.11
OCDD	0.0003		B	J	330	0.099	B	J	320	0.096	B	J	260	0.078
OCDF	0.0003		BJ	U	U		B		15	0.0045	JB	U	U	
Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***1.14***		**J**		***1.59***		**J**		***1.14***

Table 3
Summary of Method 8290A Dioxin/Furan Results
July 25, 2016 - Annual Open Burning Ground (OBG) Soil Monitoring Program
Calculation of 2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Army Ammunition Plant (RFAAP), Radford, Virginia
All results presented in ng/kg=pg/g=ppt

Notes: Analytical Method: SW-846 8290A -TestAmerica Knoxville, Knoxville, TN. P:\B03\200\B03204\B03204-216\WORK\Table 3 - Dioxin-Furan TEF Table OBG 2016.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the EDL.

QL-Limit of Quantitation/sample specific QL. EDL-Laboratory Estimated Detection Limit See analytical results for sample specific QL. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U - denotes not detected at or above the EDL. See certificate of analysis for sample specific estimated detection limit. If "B" Lab data qualifier present, U denotes not detected at or above adjusted EDL.

JA - Denotes result positively identified, but result is estimated. J - Denotes result estimated. UJ - denotes analyte not detected above DL, EDL/QL estimated due to validation.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated. X See project narrative. S denotes ion suppression.

J Denotes result reported below QL. Q Denotes the estimated maximum possible concentration. B Denotes method blank contamination (see data validation report). C denotes co-eluting isomer.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis.

Source for Action Level: United States Environmental Protection Agency. Risk-Based Screening Table. http://www.epa.gov/risk/regional-screening-table. Action Level updated June 12, 2014.

Table 4

Summary of Non-Carcinogenic Compounds of Potential Concern (COPC)
Comparison to 1/10 of the Action Limit
Open Burning Ground, RFAAP - July 25, 2016 Soil Monitoring Event

Analyte	Sample ID	Method	Results (mg/kg)	Flag	Action level (mg/kg)	1/10 Action level (mg/kg)	Date Sampled
1,3,5-Trinitrobenzene	PAD-4	8330B	0.0995	J	27000	2700	7/25/2016
2-Amino-4,6-Dinitrotoluene	SB-2	8330B	0.226	J	2000	20	7/25/2016
4-Amino-2,6-Dinitrotoluene	BERM-1	8330B	0.111	J	1900	190	7/25/2016
4-Amino-2,6-Dinitrotoluene	PAD-2	8330B	0.381		1900	190	7/25/2016
4-Amino-2,6-Dinitrotoluene	PAD-6	8330B	0.114	J	1900	190	7/25/2016
Barium	BERM-1	6010C	100		190000	19000	7/25/2016
Barium	NB-1	6010C	120		190000	19000	7/25/2016
Barium	NB-2	6010C	63		190000	19000	7/25/2016
Barium	PAD-1	6010C	140		190000	19000	7/25/2016
Barium	PAD-2	6010C	110		190000	19000	7/25/2016
Barium	PAD-3	6010C	76		190000	19000	7/25/2016
Barium	PAD-4	6010C	84		190000	19000	7/25/2016
Barium	PAD-5	6010C	87		190000	19000	7/25/2016
Barium	PAD-6	6010C	51		190000	19000	7/25/2016
Barium	PAD-7	6010C	96		190000	19000	7/25/2016
Barium	PAD-8	6010C	77		190000	19000	7/25/2016
Barium	POND-1	6010C	420		190000	19000	7/25/2016
Barium	SB-1	6010C	100		190000	19000	7/25/2016
Barium	SB-2	6010C	110		190000	19000	7/25/2016
Cadmium	BERM-1	6010C	0.16	J	800	80	7/25/2016
Cadmium	NB-1	6010C	0.35	J	800	80	7/25/2016
Cadmium	NB-2	6010C	0.14	J	800	80	7/25/2016
Cadmium	PAD-1	6010C	0.099	J	800	80	7/25/2016
Cadmium	PAD-2	6010C	0.49		800	80	7/25/2016
Cadmium	PAD-3	6010C	0.067	J	800	80	7/25/2016
Cadmium	PAD-4	6010C	0.28	J	800	80	7/25/2016
Cadmium	PAD-5	6010C	0.15	J	800	80	7/25/2016
Cadmium	PAD-6	6010C	0.2	J	800	80	7/25/2016
Cadmium	PAD-7	6010C	0.096	J	800	80	7/25/2016

Analyte	Sample ID	Method	Results (mg/kg)	Flag	Action level (mg/kg)	1/10 Action level (mg/kg)	Date Sampled
Cadmium	PAD-8	6010C	0.055	J	800	80	7/25/2016
Cadmium	POND-1	6010C	0.077	J	800	80	7/25/2016
Cadmium	SB-1	6010C	0.3	J	800	80	7/25/2016
Cadmium	SB-2	6010C	0.49	J	800	80	7/25/2016
Diethyl phthalate	BERM-1	8270D	0.21	J	490000	49000	7/25/2016
Diethyl phthalate	NB-1	8270D	2.1	J	490000	49000	7/25/2016
Diethyl phthalate	NB-2	8270D	0.35	J	490000	49000	7/25/2016
Diethyl phthalate	PAD-2	8270D	0.24	J	490000	49000	7/25/2016
Diethyl phthalate	PAD-3	8270D	0.11	J	490000	49000	7/25/2016
Diethyl phthalate	PAD-4	8270D	4.3	J	490000	49000	7/25/2016
Diethyl phthalate	PAD-5	8270D	0.18	J	490000	49000	7/25/2016
Diethyl phthalate	PAD-6	8270D	8.5	J	490000	49000	7/25/2016
Diethyl phthalate	PAD-7	8270D	0.083	J	490000	49000	7/25/2016
Diethyl phthalate	POND-1	8270D	0.082	J	490000	49000	7/25/2016
Diethyl phthalate	SB-2	8270D	0.87	J	490000	49000	7/25/2016
Di-n-butyl phthalate	BERM-1	8270D	0.22	J	62000	6200	7/25/2016
Di-n-butyl phthalate	NB-1	8270D	0.84	J	62000	6200	7/25/2016
Di-n-butyl phthalate	NB-2	8270D	0.37	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-1	8270D	1.7	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-2	8270D	2.8	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-3	8270D	1.2	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-4	8270D	0.94	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-5	8270D	1.5	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-6	8270D	22	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-7	8270D	0.88	J	62000	6200	7/25/2016
Di-n-butyl phthalate	PAD-8	8270D	1.6	J	62000	6200	7/25/2016
Di-n-butyl phthalate	POND-1	8270D	0.14	J	62000	6200	7/25/2016
Di-n-butyl phthalate	SB-2	8270D	0.68	J	62000	6200	7/25/2016
Diphenylamine	BERM-1	8270D	0.24		15000	1500	7/25/2016
Diphenylamine	NB-1	8270D	0.14	J	15000	1500	7/25/2016
Diphenylamine	PAD-1	8270D	0.17	J	15000	1500	7/25/2016
Diphenylamine	PAD-2	8270D	0.11	J	15000	1500	7/25/2016
Diphenylamine	PAD-3	8270D	0.12	J	15000	1500	7/25/2016
Diphenylamine	PAD-4	8270D	0.28		15000	1500	7/25/2016

Analyte	Sample ID	Method	Results (mg/kg)	Flag	Action level (mg/kg)	1/10 Action level (mg/kg)	Date Sampled
Diphenylamine	PAD-5	8270D	0.097	J	15000	1500	7/25/2016
Diphenylamine	PAD-6	8270D	0.93	J	15000	1500	7/25/2016
Diphenylamine	PAD-7	8270D	0.12	J	15000	1500	7/25/2016
Diphenylamine	PAD-8	8270D	0.13	J	15000	1500	7/25/2016
Diphenylamine	POND-1	8270D	0.11	J	15000	1500	7/25/2016
Diphenylamine	SB-2	8270D	0.045	J	15000	1500	7/25/2016
Fluoranthene	PAD-2	8270D	0.005	J	22000	2200	7/25/2016
Fluoranthene	PAD-3	8270D	0.004	J	22000	2200	7/25/2016
Fluoranthene	PAD-4	8270D	0.019	J	22000	2200	7/25/2016
Fluoranthene	PAD-5	8270D	0.16		22000	2200	7/25/2016
HMX	POND-1	8330B	1.42		49000	4900	7/25/2016
Mercury	PAD-2	7471A	0.022	J	43	4.3	7/25/2016
Mercury	PAD-6	7471A	0.019	J	43	4.3	7/25/2016
Nitroglycerin	BERM-1	8330B	14.5		62	6.2	7/25/2016
Nitroglycerin	NB-1	8330B	2.5		62	6.2	7/25/2016
Nitroglycerin	NB-2	8330B	1.41		62	6.2	7/25/2016
Nitroglycerin	PAD-1	8330B	7.7		62	6.2	7/25/2016
Nitroglycerin	PAD-2	8330B	2.82		62	6.2	7/25/2016
Nitroglycerin	PAD-3	8330B	5.56		62	6.2	7/25/2016
Nitroglycerin	PAD-4	8330B	36		62	6.2	7/25/2016
Nitroglycerin	PAD-5	8330B	19.3		62	6.2	7/25/2016
Nitroglycerin	PAD-6	8330B	23.5		62	6.2	7/25/2016
Nitroglycerin	PAD-7	8330B	12.8		62	6.2	7/25/2016
Nitroglycerin	POND-1	8330B	19.3		62	6.2	7/25/2016
Nitroglycerin	SB-2	8330B	2.84		62	6.2	7/25/2016
Perchlorate	PAD-3	6850	0.00885		720	72	7/25/2016
Perchlorate	PAD-5	6850	0.00146	J	720	72	7/25/2016
Perchlorate	PAD-6	6850	0.0138		720	72	7/25/2016
Selenium	NB-1	6010C	0.49	J	5100	510	7/25/2016
Selenium	PAD-1	6010C	0.45	J	5100	510	7/25/2016
Selenium	PAD-3	6010C	0.45	J	5100	510	7/25/2016
Selenium	PAD-4	6010C	0.55	J	5100	510	7/25/2016
Selenium	SB-1	6010C	0.56	J	5100	510	7/25/2016
Selenium	SB-2	6010C	0.75	J	5100	510	7/25/2016

APPENDIX C

CONSTITUENTS OF POTENTIAL CONCERN (COPCs) LIST

Table 1: Page 1 of 2
Identification of Constituents of Potential Concern
Open Burning Ground Soil Monitoring Program
Radford Army Ammunition Plant
Modified: June 12 2014

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang Box Database?	On GW List	To be Sampled?	SW-846 Method	Proposed RL mg/kg	Original Permit Action Level mg/kg (09/28/05)	Action Level mg/kg (As Revised rev 12/03/08)	Action Level mg/kg (As Revised rev 09/27/11)	Updated Action Level mg/kg	Source of Updated Action Level
1,2-Dichloroethane	107-06-2	PIC		Yes		*Yes*	8260C	0.005	31	2.2	2.2	2.2	R3 RSL Ind
1,3,5-Trinitrobenzene	99-35-4	PIC		Yes		*Yes*	8330B	0.25	31000	27000	27000	27000	R3 RSL Ind
2,4,6-Trinitrotoluene	118-96-7	ENER				*Yes*	8330B	0.25	95	79	79	79	R3 RSL Ind
2-amino-4,6-dinitrotoluene	35572-78-2	ENER				*Yes*	8330B	0.25	2000	2000	2000	2000	R3 RSL Ind
4-amino-2,6-dinitrotoluene	19406-51-0	ENER				*Yes*	8330B	0.25	2000	1900	1900	1900	R3 RSL Ind
2,4-Dichlorophenol	120-83-2	PIC		Yes	*	*Yes*	8270D	0.33	3100	1800	1800	1800	R3 RSL Ind
1,3-Dinitrobenzene	99-65-0	ENER				*Yes*	8330B	0.25	100	62	62	62	R3 RSL Ind
2,4-Dinitrotoluene	121-14-2	Both	Yes		Yes	*Yes*	8330B	0.25	2000	1200	5.5	5.5	R3 RSL Ind
2,6-Dinitrotoluene	606-20-2	PIC		Yes	Yes	*Yes*	8330B	0.25	1000	620	620	1.2	R3 RSL Ind
2-Chlorophenol	95-57-8	PIC		Yes	*	*Yes*	8270D	0.33	5100	5100	5100	5100	R3 RSL Ind
3-Methylphenol	108-39-4	PIC		Yes		*Yes*	8270D	0.33	51000	31000	31000	31000	R3 RSL Ind
4-Methylphenol	106-44-5	PIC		Yes		*Yes*	8270D	0.33	5100	3100	3100	62000	R3 RSL Ind
2-Nitrotoluene (ortho)	88-72-2	ENER				*Yes*	8330B	0.25	12	13	13	13	R3 RSL Ind
3-Nitrotoluene (meta)	99-08-1	ENER				*Yes*	8330B	0.25	20000	12000	62	62	R3 RSL Ind
4-Nitrotoluene (para)	99-99-0	ENER				*Yes*	8330B	0.25	170	110	110	110	R3 RSL Ind
3,3-Dimethylbenzidine	119-93-7	PIC		Yes		*Yes*	8270D	1.6	--	0.16	0.16	0.16	R3 RSL Ind
4-Nitrophenol	100-02-7	PIC		Yes		*Yes*	8270D	1.6	7	7	7	7	ECO Risk
Acetophenone	98-86-2	PIC		Yes		*Yes*	8270D	0.33	100000	100000	100000	100000	R3 RSL Ind
Arsenic	7440-38-2	Propellant ingredient	Yes		Yes	*Yes*	6010C	1	15.8	15.8	15.8	15.8	FWB
Barium	7440-39-3	Propellant ingredient	Yes	Yes	Yes	*Yes*	6010C	20	72000	190000	190000	190000	R3 RSL Ind
Benz(a)anthracene	56-55-3	PIC		Yes		*Yes*	8270D	0.33	3.9	2.1	2.1	2.1	R3 RSL Ind
Benzene	71-43-2	Propellant ingredient	Yes		Yes	*Yes*	8260C	0.005	52	5.6	5.4	5.4	R3 RSL Ind
Benzo(a)pyrene	50-32-8	PIC		Yes		*Yes*	8270D	0.02	0.39	0.21	0.21	0.21	R3 RSL Ind
Benzo(b)fluoranthene	205-99-2	PIC		Yes		*Yes*	8270D	0.33	3.9	2.1	2.1	2.1	R3 RSL Ind
Benzo(k)fluoranthene	207-08-9	PIC		Yes		*Yes*	8270D	0.33	39	21	2.1	2.1	R3 RSL Ind
Benzyl chloride	100-44-7	PIC		Yes		*Yes*	8260C	0.005	--	17	4.9	4.9	R3 RSL Ind
bis(2-Ethylhexyl)phthalate	117-81-7	PIC		Yes		*Yes*	8270D	0.33	200	120	120	120	R3 RSL Ind
Butylbenzylphthalate	85-68-7	PIC		Yes		*Yes*	8270D	0.33	200000	910	910	910	R3 RSL Ind
Cadmium	7440-43-9	PIC		Yes		*Yes*	6010C	0.5	510	810	800	800	R3 RSL Ind
Carbon tetrachloride	56-23-5	PIC		Yes	Yes	*Yes*	8260C	0.005	22	1.3	3	3	R3 RSL Ind
Chlorobenzene	108-90-7	Both	Yes	Yes	Yes	*Yes*	8260C	0.005	20000	1500	1400	1400	R3 RSL Ind
Chloroform	67-66-3	PIC		Yes		*Yes*	8260C	0.005	10000	1.5	1.5	1.5	R3 RSL Ind
Chromium, Hexavalent	18540-29-9	PIC		Yes		*Yes*	7196A	1	NA	NA	5.6	5.6	R3 RSL Ind
Chromium, Total	7740-47-3	PIC		Yes	Yes	*Yes*	6010C	1	3100	1400	NA	NA	NA
Dibenz(a,h)anthracene	53-70-3	PIC		Yes		*Yes*	8270D	0.02	0.39	0.21	0.21	0.21	R3 RSL Ind
Diethylphthalate	84-66-2	Propellant ingredient	Yes			*Yes*	8270D	0.33	820000	490000	490000	490000	R3 RSL Ind
Dimethyl phthalate	131-11-3	PIC		Yes		*Yes*	8270D	0.33	10000000	10000000	10000000	10000000	R3 RSL Ind*
Di-n-butyl phthalate	84-74-2	PIC		Yes	Yes	*Yes*	8270D	0.33	100000	62000	62000	62000	R3 RSL Ind
Diphenylamine	122-39-4	Both	Yes	Yes	Yes	*Yes*	8270D	1.6	26000	15000	15000	15000	R3 RSL Ind
Ethanol	64-17-5	Propellant ingredient	Yes				NCA						
Fluoranthene	206-44-0	PIC		Yes		*Yes*	8270D	0.33	41000	22000	22000	22000	R3 RSL Ind
Hexachloroethane	67-72-1	Propellant ingredient	Yes		Yes	*Yes*	8270D	0.33	200	120	120	43	R3 RSL Ind
HMX	2691-41-0	ENER				*Yes*	8330B	2.2	51000	49000	49000	49000	R3 RSL Ind
Indeno(1,2,3-cd)pyrene	193-39-5	PIC		Yes		*Yes*	8270D	0.33	3.9	2.1	2.1	2.1	R3 RSL Ind
Lead	7439-92-1	PIC		Yes	Yes	*Yes*	6010C	0.3	800	800	800	800	~~ALM~~ R3 RSL Ind
Mercury	7439-97-6	Propellant ingredient	Yes		Yes	*Yes*	7471A	0.1	0.13	28	34	43	R3 RSL Ind
Methyl bromide (Bromomethane)	74-83-9	PIC		Yes		*Yes*	8260C	0.005	15	35	32	32	R3 RSL Ind
Methyl chloride (Chloromethane)	74-87-3	Both	Yes	Yes	Yes	*Yes*	8260C	0.005	6	8.4	500	500	R3 RSL Ind
Methylene chloride	75-09-2	Both	Yes	Yes	Yes	*Yes*	8260C	0.005	380	54	53	960	R3 RSL Ind
Naphthalene	91-20-3	PIC		Yes		*Yes*	8270D	0.33	20000	20	18	18	R3 RSL Ind
Nitrobenzene	98-95-3	ENER				*Yes*	8330B	0.25	510	280	24	24	R3 RSL Ind
Nitrogen dioxide (peroxide)	10102-44-0	PIC		Yes			NCA						
Nitroglycerin	55-63-0	ENER	Yes		Yes	**** Yes***	8330B	0.25	200	62	62	62	R3 RSL Ind
Perchlorate	14797-73-0	Propellant ingredient	Yes		Yes	***Yes***	314 or 6850	~~blank~~ 0.002			720	720	R3 RSL Ind
Phenol	108-95-2	PIC		Yes	*	*Yes*	8270D	0.33	310000	180000	180000	180000	R3 RSL Ind
RDX	121-82-4	ENER				*Yes*	8330B	1	26	24	24	24	R3 RSL Ind
Silver	7440-22-4	Propellant ingredient	Yes		Yes	*Yes*	6010C	1	5100	5100	5100	5100	R3 RSL Ind
Selenium	7782-49-2	Background				*Yes*	6010C	~~0.5~~ 1	5100	5100	5100	5100	R3 RSL Ind

Revised 12-3-08
Revised 9-30-10
Revised 9-27-11

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang Box Database?	On GW List	To be Sampled?	Method SW-846	Proposed RL mg/kg	Original Permit Action Level mg/kg (09/28/05)	Action Level mg/kg (As Revised rev 12/03/08)	Action Level mg/kg (As Revised rev 09/27/11)	Updated Action Level mg/kg	Source of Updated Action Level
Total Petroleum Hydrocarbons - DRO		Site Accelerant				***Yes***	8015C	~~10~~ 20	11000	11000	11000	11000	DEQ gd
Tetrachloroethylene	127-18-4	PIC		Yes		***Yes***	8260C	0.005	5.3	2.7	2.6	110	R3 RSL Ind
Tetryl	479-45-8	ENER				***Yes***	8330B	0.65	10000	2500	2500	1200	R3 RSL Ind
Toluene	108-88-3	Both	Yes	Yes	Yes	***Yes***	8260C	0.005	200000	46000	45000	45000	R3 RSL Ind
Trichloroethylene	79-01-6	PIC		Yes		***Yes***	8260C	0.005	7.2	14	14	6.4	R3 RSL Ind
Vinyl chloride	75-01-4	PIC		Yes		***Yes***	8260C	0.005	4	1.7	1.7	1.7	R3 RSL Ind
Vinylidene chloride (1,1-Dichloroethene)	75-35-4	PIC		Yes		***Yes***	8260C	0.005	51000	1100	1100	1100	R3 RSL Ind
Polychlorinated Dibenzo(p)dioxins and furans													
1,2,3,4,5,7,8,9-Octachlorodibenzo(p)dioxin (OCDD)	3268-87-9	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin (HpCDD)	35822-46-9	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	39227-28-6	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	57653-85-7	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin (HxCDD)	19408-74-3	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,7,8-Pentachlorodibenzo(p)dioxin (PeCDD)	40321-76-4	PIC		Yes		***Yes***	8290A	See Note 5					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8290A	See Note 5					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	PIC		Yes		***Yes***	8290A	See Note 5					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8290A	See Note 5					
2,3,7,8-Tetrachlorodibenzo(p)dioxin (TCDD)	1746-01-6	PIC		Yes		***Yes***	8290A	See Note 5					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	PIC		Yes		***Yes***	8290A	See Note 5					
2,3,7,8-TCDD Toxicity Equivalence Quotient(TEQ)									19 ng/kg	19 ng/kg	18 ng/kg	18 ng/kg	R3 RBC Ind

NOTES:

1. Updated Action Level — AL changed as part of update of Region III Regional Screening Levels (RSL) (formerly known as RBCs) for Industrial Sites .
2. Type of Constituent — "Propellant Ingredient" = Ingredient in propellant compound.
   "PIC" Product of Incomplete Combustion": means that it was reported in the Bangbox Database (see Appendix A-2).
   "Both" Both PIC and Propellant Ingredient.
   "ENER" - Energetic on SW-846 Method 8330 parameter List.
3. In Waste — "Yes" - means it was reported in Radford AAP's waste characterization.
4. **BOLD** Constituent — Constituent not in 40 CFR 261 Appendix VIII List of Hazardous Constituents.
5. Dioxins — Reporting Limit and Action Level will be calculated for each sample and detection, respectively. See Table 2 for example reporting format.
6. NCA — Constituent is not analyzed by commercial laboratories.
7. Source of Updated Action Levels — **"R3 RSL Ind"** United States Environmental Protection Agency Regions 3, 6, and 9. (Accessed March 25, 2014). Regional Screening Levels for Chemical Contaminants at Superfund Sites. Current RSL table dated November 2013. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
   "R3 RSL Ind*" - These constituents were removed from the September 12, 2008 RBC table. The previous AL (Region III RBC for Industrial Sites from October 2004) is listed.
   "DEQ gd" - Table 5-11 Soil Saturation Values, Page 5-69 of VDEQ Storage Tank Program Technical Manual, Fourth Edition, May 10, 2011.
   "FWB" - Facility Wide Background Study.
   "ECO RISK" - June 23, 2000 EPA memorandum Entitled *Amended Guidance on Ecological Risk Assessment at Military Bases: Process Considerations, Timing of Activities and Inclusion of Stakeholders.*
   "NA" - Not applicable.
8. RL and AL — "RL" is the laboratory reporting limit and is analogous to the Limit of Quantitation (LOQ). "AL" is the Action Level based on published risk based values.
9. Action Level adjusted — for 3,3-Dimethylbenzidine the Action Level of 0.16 mg/kg is below the Proposed Reporting Level of 1.6 mg/kg. The Proposed Reporting Level in this case is set to the level at which the laboratory feels most confident detecting this chemical. Therefore any result above the Action Level and below the Proposed Reporting Limit will be discussed with the VA DEQ to determine if additional evaluation is necessary.
10. Non-pad Sample Locations** (SB-1, SB-2, NB-1, NB-2, Berm-1, and Pond-1) — **Soil samples collected from non burn pad locations only require analysis for the following constituents: Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Bromomethane, Trichloroethene, Bis(2-Ethylexyl) phthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, N-Nitrosodiphenylamine, Dioxins/furans, 2,4,6-Trinitrotoluene, 2-Amino-4, 6-dinitrotoluene, 4-Amino-2, 6-dinitrotoluene, HMX, Nitroglycerin and 2,4-Dinitrotoluene.**

Revised 12-3-08
Revised 9-30-10
Revised 9-27-11

APPENDIX D

CHAINS-OF-CUSTODY AND FIELD NOTES

This report is presented in an electronic version and as a bound hard copy version.

Electronic Version: Depending upon the file size (limited to 50 MB per file), this Attachment/Appendix may be presented in a separate Portable Document Format (PDF) file associated with this report.

Hardcopy Version: This Attachment/Appendix is only provided in PDF on the enclosed compact disc (CD-ROM).

3.0 | C4.0 3.8 | C4.8
3.6 | C4.6

CHAIN OF CUSTODY RECORD

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Opal Johnson, Manager/1-330-966-9279

Client: Draper Aden Associates **Attn:** **Address:** **Phone:** **Fax:** **Fax:**	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP. Radford, Virginia **Location:** HWMU-13 (Open Burning Ground) **Event:** ~~August~~ July 2016 - Annual Soil Monitoring **DAA JN:** B03204-216 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES UPS: 12-237-301-01-9187-3830 **Carrier:** **Tracking Number:** 12-237-301-01-9292-1624 **Invoice** 12-237-301-01-9502-0646

7-15-16

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (<4 deg C); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type					G	G									
Box 3 - Filtered/Unfiltered					-	-									
Required pH of Sample					-	-									
Box 2 - Preservative					H	H									
Box 5 - Sample Container Type					1-4 oz CG	2-4 oz AG									
Sample ID	**Date: 2016**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**RCRA Metals: 6010C**	**Dioxins/Furans 8290A**	**DRY WEIGHT (aliquot from method container)**								
NB-1	7-25	1420	S	3	X	X	X								
NB-2	7-25	1430	S	3	X	X	X								
SB-1	7-25	1600	S	3	X	X	X								
SB-2	7-25	1615	S	3	X	X	X								
BERM-1	7-25	1400	S	3	X	X	X								
POND-1	7-25	1410	S	3	X	X	X								

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. VELAP required. Dioxin/Furans to TA Knoxville. All other methods TA North Canton.
4. Report results in mg/kg except for dioxins.
5. VELAP Accreditation required.

240-67631 Chain of Custody

Clients Special Instructions: Level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 7/25/16	#1 Relinquished by (Signature):	Date: 7-26-16	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason Deese	Date: 7/25/16	#1 Received by (Signature):	Date: 7/27/16	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0700	Company Name:	Time: 1030	Company Name:	Time:	

8/31/2016

2/4

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 67631
Canton Facility

Client Draper Aden Site Name _____ Cooler unpacked by: DSO

Cooler Received on 07/27/16 Opened on 07/27/16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF +1.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   ~~IR GUN #36 (CF +1.0°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC574756**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :**
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	36	3.0	4.0	Ice
↓	↓	3.6	4.6	↓
		3.8	4.8	

3.0/C4.0 3.8/C4.8
3.6/C4.6

CHAIN OF CUSTODY RECORD

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Opal Johnson, Manager/1-330-966-9279

AT 6/28/2016

Client: Draper Aden Associates **Attn:** **Address:** **Phone:** **Fax:** **Fax:**	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street, Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP, Radford, Virginia **Location:** HWMU-13 (Open Burning Ground) **Event:** July ~~August~~ 2016 - Annual Soil Monitoring **DAA JN:** B03204-216 **Lab JN:**		**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES UPS: **Carrier:** 12.237.301.01.9187.3530 **Tracking Number:** ~~12.237.301.01.9292.1624~~ **Invoice** 12.237.301.01.9502.0646 **Copy to Consultant:** YES **Bill:** CLIENT OTHER **Preserved and shipped on ice:** YES	

Box 1: Matrix
SW Surface Water, GW Groundwater, L Leachate, S Soil, T Trip Blank, E Equipment Blank, P Product, O Other

Box 2: Preservative
A HCL, B HNO_3, C H_2SO_4, D $Na_2S_2O_3$, E NaOH, F ZnAc, G Other (<4 deg C), H None

Box 3: Filtered/Unfiltered
F Filtered, U Unfiltered

Box 5: Sample Container Type
P Plastic, V VOA, AG Amber Glass, CG Clear Glass

Box 4: Sample Type
G Grab, C Composite

Sample ID	Date: 2016	Time	Box 1: Matrix	Number of Bottles	Hexavalent Chromium 7196A/3060A	TPH-DRO 8015C/3540C	RCRA Metals 6010C/7471A	Dioxins/Furans 8290A	DRY WEIGHT (aliquot from method container)	
Box 4 - Sample Type					G	G	G	G		
Box 3 - Filtered/Unfiltered					-	-	-	-		
Required pH of Sample					-	-	-	-		
Box 2 - Preservative					G	H	H	H		
Box 5 - Sample Container Type					1-4 oz CG	1-4 oz CG	1-4 oz CG	2-4 oz AG		
PAD-1	7-25	1500	S	5	X	X	X	X	X	
PAD-2	7-25	1520	S	4	X		X	X	X	
PAD-3	7-25	1540	S	4	X		X	X	X	
PAD-4	7-25	1630	S	5	X	X	X	X	X	
PAD-4ms	7-25	1630	S	5	X	X	X	X	X	use for MS / MSD...
PAD-4msd	7-25	1630	S	5	X	X	X	X	X	
PAD-5	7-25	1700	S	4	X		X	X	X	
PAD-6	7-25	1720	S	4	X		X	X	X	
PAD-7	7-25	1735	S	5	X	X	X	X	X	
PAD-8	7-25	1800	S	4	X		X	X	X	
PAD-X	7-25	1745	S	3	X	X	X		X	
PAD-XX	7-25	1510	S	2				X	X	PAD-XX used for dioxin blind field duplicate only

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. VELAP required. Dioxin/Furans to TA Knoxville. All other methods TA North Canton
4. Report results in mg/kg except for dioxin.
5. VELAP Accreditation required.

240-67642 Chain of Custody

Clients Special instructions: Level 4 with edd.

Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on Ice ____ Yes ____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 7/25/16	#1 Relinquished by (Signature):	Date: 7-26-16	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: Ken Coddington	Time: 0700	Company Name: DAA	Time: 1200	Company Name:	Time:	
Sampler Name (Print): Will Mason-Deese	Date: 7/25/16	#1 Received by (Signature):	Date: 7/27/16	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0700	Company Name:	Time: 1030	Company Name:	Time:	

OK 6/29/16

1/4

3/4

ANALYTICAL METHOD: 6010C/7471A (Soil)
TYPE METHOD: Inorganics

Analyte List for: All PAD Samples

No	Constituent	CASRN	SW-846 Method
1	Arsenic	7440-38-2	6010C
2	Barium	7440-39-3	6010C
3	Cadmium	7440-43-9	6010C
4	Chromium, Total	7740-47-3	6010C
5	Lead	7439-92-1	6010C
6	Silver	7440-22-4	6010C
7	Selenium	7782-49-2	6010C
8	Mercury	7439-97-6	7471A

Analyte List for: All PAD Samples

Constituent	CASRN	SW-846 Method
Chromium, Hexavalent	18540-29-9	7196A

Analyte List for SB-1, SB-2, NB-1, NB-2, Berm-1 and Pond-1 ONLY

Method SW 846-6010C

No.	ANALYTE	CAS RN
1.	Arsenic	7440-38-2
2.	Barium	7440-39-3
3.	Cadmium	7440-43-9
4.	Chromium	7440-47-3
5.	Lead	7440-92-1
6.	Selenium	7782-49-2

\\draperaden.net\daa\Teams\Environmental\BBG\Databases\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\Annual OBG Soil Event\2015- Unit 13-OBG - Target Analyte List --Soil Samples.doc

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event

Based on revised permit effective June 12, 2014

ANALYTICAL METHOD: 8015C/3540C
TYPE METHOD: TPH- DRO

Analyte List for: PAD-1, PAD-4 and PAD-7, PAD-X

Constituent	CASRN	SW-846 Method
Total Petroleum Hydrocarbons - DRO		8015C

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 107642
Canton Facility

Client Draper Aden Site Name _____ Cooler unpacked by: DSO
Cooler Received on 07/27/16 Opened on 07/27/16
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF +1.3 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF +1.0°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC574756**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
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TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 670642

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	36	3.0	4.0	Ice
↓	↓	3.6	4.6	↓
		3.8	4.8	

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3.0/C4.0 3.8/C4.8
3.6/C4.6

CHAIN OF CUSTODY RECORD

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Opal Johnson, Manager/1-330-966-9279

6/28/2016

Client: Draper Aden Associates Attn: Address: Phone: Fax: Fax:	Consultant: Draper Aden Associates Attn: Janet C. Frazier Address: 2206 South Main Street, Blacksburg, Virginia 24060 Phone: (540) 552-0444 Fax: (540) 552-0291	Sample Site: RFAAP. Radford, Virginia Location: HWMU-13 (Open Burning Ground) Event: August 2016 - Annual Soil Monitoring DAA JN: B03204-216 Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UPS: Carrier: 12-237-301-01-9187-3830 Tracking Number: 12-237-301-01-9292-1627 Invoice 12-237-301-01-9502-0646 Copy to Consultant: YES Bill: CLIENT OTHER Preserved and shipped on ice: YES

Box 1: Matrix
SW Surface Wate T Trip Blank
GW Groundwater E Equipment E
L Leachate P Product
S Soil O Other

Box 2: Preservative
A HCL
B HNO_3
C H_2SO_4
D $Na_2S_2O_3$
E NaOH
F ZnAc
G Other (<4 de
H None

Box 3: Filtered/Unfiltered
F Filtered
U Unfiltered

Box 4: Sample Type
G Grab
C Composite

Box 5: Sample Container Type
P Plastic V VOA
AG Amber Glas CG Clear Glass

Box 4 - Sample Type					G	G	G								
Box 3 - Filtered/Unfiltered					U	U	U								
Required pH of Sample					<2	-	-								
Box 2 - Preservative					B	-	-								
Box 5 - Sample Container Type					1-500 mL P	4-1L AG	2-1L AG								
Sample ID	Date: 2016	Time	Box 1: Matrix	Number of Bottles	RCRA Metals: 6010C/7470A	Dioxins/Furans 8290A	TPH-DRO 8015C								
EB	7/25	1300	W	7	X	X	X								

GENERAL NOTES:
1. Estimated results required.
2. VELAP required. Dioxin/Furans to TA Knoxville. All other methods TA North Canton.
4. VELAP Accreditation required.
5. See attached analyte list.

pre-sampling EQ Blank

240-67646 Chain of Custody

Clients Special Instructions: Level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): Ken Coddington	Date: 7/25/16	#1 Relinquished by (Signature):	Date: 7/26/16	#2 Relinquished by (Signature):	Date:	Sample Time
Sampler Signature:	Time: 1200	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason	Date: 7/25/16	#1 Received by (Signature):	Date: 7/27/16	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 1200	Company Name:	Time: 1030	Company Name:	Time:	

*OK to report w/soil event.
JWC 6/29/16

1/2

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 67646
Canton Facility

Client Draper Aden Site Name

Cooler Received on 07/27/16 Opened on 07/27/16

Cooler unpacked by: DSD

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF +1.3 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN #36 (CF +1.0°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC574756**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\In Revision\WI-NC-099-061316 Cooler Receipt Form.doc djl

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :**
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	36	3.0	4.0	ICE
↓	↓	3.6	4.6	↓
		3.8	4.8	

EQUIPMENT BLANK ONLY- WATER -

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event

Based on revised permit effective June 12, 2014

ANALYTICAL METHOD: 6010C/7470A
TYPE METHOD: Inorganics

No	Constituent	CASRN	SW-846 Method
1	Arsenic	7440-38-2	6010C
2	Barium	7440-39-3	6010C
3	Cadmium	7440-43-9	6010C
4	Chromium, Total	7740-47-3	6010C
5	Lead	7439-92-1	6010C
6	Silver	7440-22-4	6010C
7	Selenium	7782-49-2	6010C
8	Mercury	7439-97-6	7470A

Login Container Summary Report

Temperature readings:

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
EB	240-67646-A-1	Plastic 500ml - with Nitric Acid	<2		

3.6/C4.0

CHAIN OF CUSTODY RECORD

NR 9-9-16

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Opal Johnson, Manager/1-330-966-9279

Client: Draper Aden Associates **Attn:** **Address:** **Phone:** **Fax:** **Fax:**	**Consultant:** Draper Aden Associates **Attn:** Janet C Frazier **Address:** 2206 South Main Street, Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP Radford, Virginia **Location:** HWMU-13 (Open Burning Ground) **Event:** September 2016 - Annual Soil Verification Monitoring **DAA JN:** B03204-216 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES UPS: **Carrier:** 1Z 237-301-01-9480-4177 **Tracking Number:**

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (< 6 deg c); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type					G										
Box 3 - Filtered/Unfiltered					-										
Required pH of Sample					-										
Box 2 - Preservative					H										
Box 5 - Sample Container Type					1-4 oz CG										
Sample ID	**Date: 2016**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**RCRA Metals - 6010C (Lead ONLY)**	**Dry Weight (from sample container)**									
Pad-6	9/15	0650	S	1	X	X									
DUP	9/15	0700	S	1	X	X									

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. Report results in mg/kg except.
4. VELAP Accreditation required.
5. **RUSH analysis 48 Hour if possible.**

OK JWR 9-15-2016

Use for MS/~~DUP~~ MSD WMD 9-9-16

240-69582 Chain of Custody

Clients Special Instructions: Level 1 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any

Sampler Name (Print) Ken Coddington	Date 9/15/16	#1 Relinquished by (Signature) Ken Coddington	Date 9/15/16	#2 Relinquished by (Signature)	Date	Sample Storage Time Requested
Sampler Signature Ken Coddington	Time 0600	Company Name DAA	Time 1700	Company Name	Time	
Sampler Name (Print) Will Mason-Deesc	Date 9/15/16	#1 Received by (Signature) Jenny Miller	Date 9-16-16	#2 Received by (Signature)	Date	30 DYS ORG/6 MTHS INORG
Sampler Signature Will Mason	Time 0600	Company Name TA Canton	Time 10:30	Company Name	Time	

NR 9-9-16

1/1

WMD 9-9-16

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 69582
Canton Facility

Client Draper Aden Site Name RFAAP Radford VA Cooler unpacked by: Jennifer Miller
Cooler Received on 9-16-16 Opened on 9-16-16
FedEx: 1st Grd Exp (UPS) FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other
Packing material used: (Bubble Wrap) Foam Plastic Bag None Other
COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0.4 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 4.0 °C
   IR GUN #36 (CF +1.3°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# **HC574756**
12. Were VOAs on the COC? Yes (No)
13. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #____ Yes (No)
15. Was a LL Hg or Me Hg trip blank present? ____ Yes (No)

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____.

7/25/2016 RFAAP/Unit B-OBG Soil F.B.#12
B03204-16
WMD/KFC

GENERAL NOTES

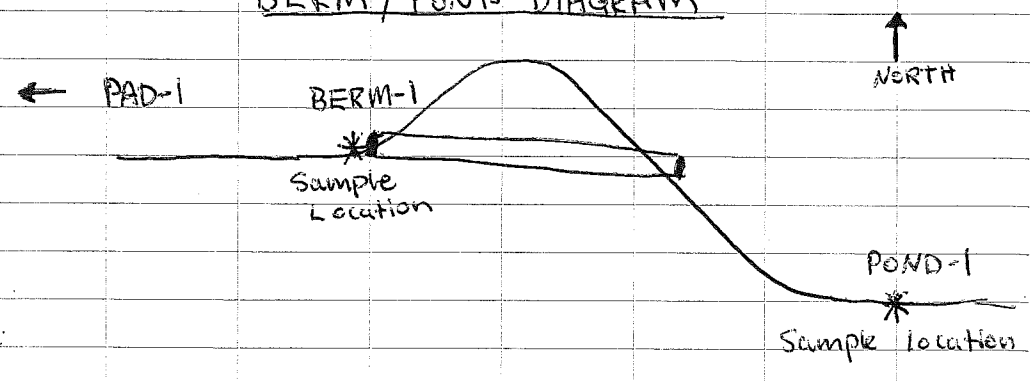
- Weather: Sunny/Clear 90°
- PPE: White Flame Retardant cover-alls, chemical Resistant boots, eye protection, nitrile + neoprene gloves
- Equipment - Deconned dedicated sampling equipment and repacked sampling trowels stored in foil and zip-lock bags after deconning.
- Decon Water: collected and disposed of at Bio-treatment plant on grounds.
- Decon Material: Collected, bagged + disposed of at onsite waste area.
- All samples collected then stored and transported on ice in coolers.
- Hexavalant Chromium: soil samples collected using a composite (non-metal) sampling trowel. Also, collected from a point 6" from sampling point for other constituents.
- All Pans located at the south end of each PAD.
- Collected perchlorate with head space in amber glass jars
- Sampling procedures follow SAP specified in the permit with the following exception: No plastic sheeting laid on ground because sampling equipment was not staged on the ground.
- Sample Alloquot collected from 0-6 inches with dedicated stainless steel tulip bulb sampler.
- Sample Alloquote is placed in 1 gallon plastic ziplock bags and homogenized, alloquet then placed into sample containers.
- VOC (8260/5035A) collected first from ziplock bag using disposable T-handle sampler.

7/25/2016 RFAAP/Unit 13 OBG Soil F.B. # 12
B03204-10
WMD/KFC

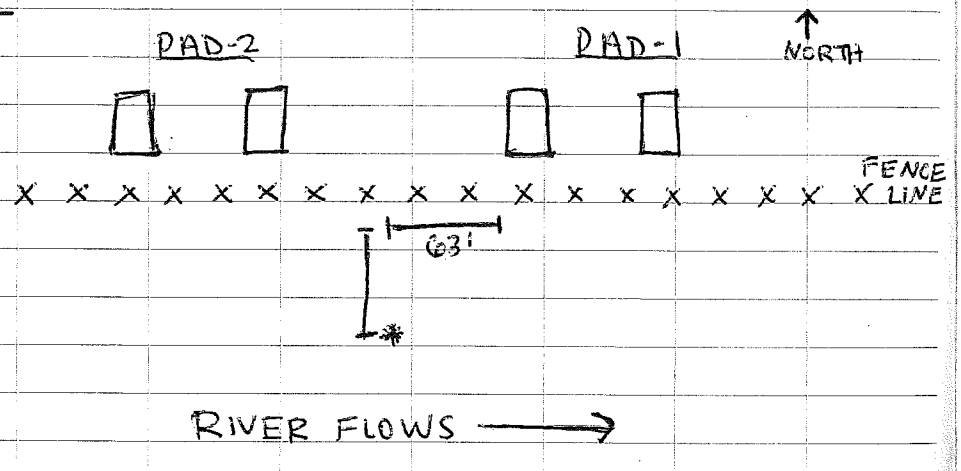
GENERAL NOTES

- Equipment deconned according to the SAP in the Permit.
- Refer to diagrams for each sampling point and sample location.

BERM / POND DIAGRAM



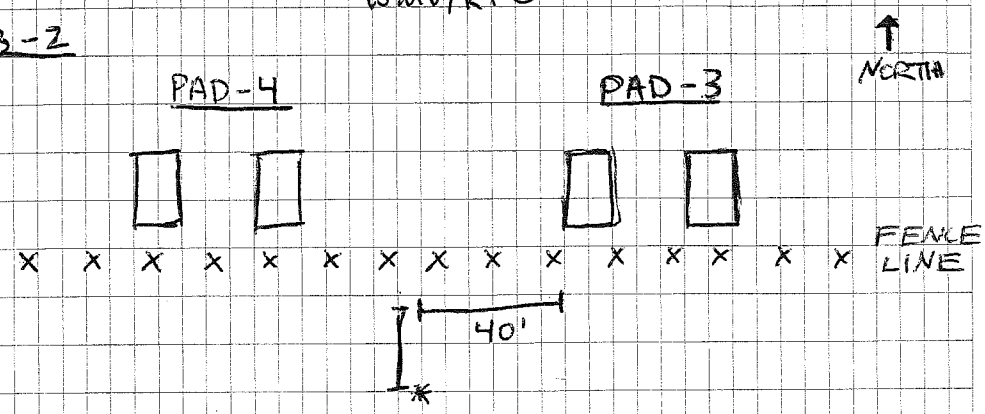
SB-1



Sample Time (1600)
Samples Collected: (5) 8260C, (1) 8270D, DRY WT., (1) RCRA MTB.
(2) 8290A/Dry Wt., (1) 8330B

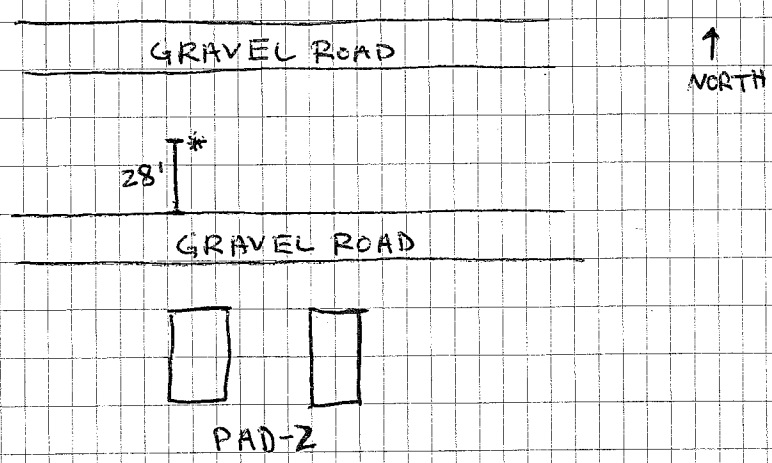
B03204-16
WMD/KFC

SB-2



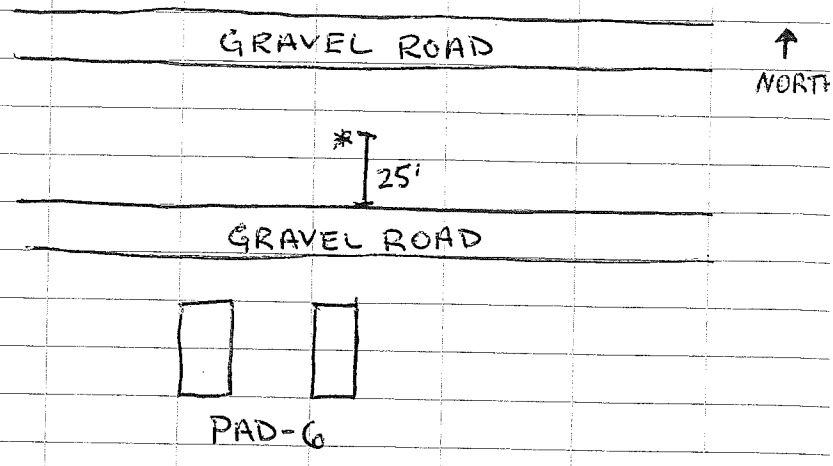
Sample Time (1615)
Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS., (2) 8290A/DRY WT., (1) 8330B

NB-1



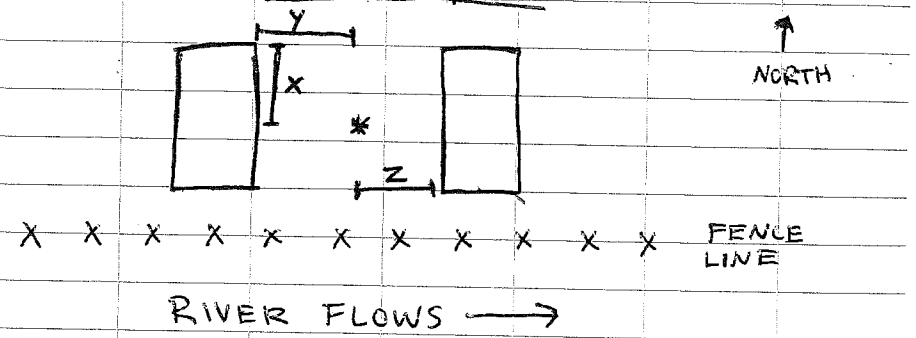
Sample Time (1420)
Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTL. (2) 8290A/DRY WT., (1) 8330B

NB-2



Sample Time (1430)
Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA mtl., (2) 8290A/DRY WT., (1) 8330B

PAD DIAGRAM



* Samples collected from topographical low point between the mid point length of each pan. Samples collected 2 feet north of the mid-point.

Equipment Blank (Taken from PAD-6 trowel)
Sample Time (1300)
Samples Collected: (1) Perchlorate, (2) 8330B, (1) RCRA mtls., (4) 8290A, (2) TPH-DRO, (3) 8260C, (2) 8270D.

PAD-1

x = 9' 8" y = 11' 4" z = 23' 2"

Observations: Effervecience, Soil is Dry

Sample Time (1500)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS, (1) HexaChrom, (1) TPH-DRO, (2) 8290A/DRY WT., (1) Perchlorate/DRY WT., (1) 8330B

PAD-XX (Taken from Pad-1)

Sample Time (1510)

Samples Collected: (2) 8290A/DRY WT.

PAD-2

x = 9' 7" y = 11' 6" z = 23' 2"

Observations: Effervecience, dry soil

Sample Time (1520)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT. (1) RCRA MTLS., (1) HEXACHROM, (2) 8290A/DRY WT., (1) Perchlorate/DRY WT., (1) 8330A

PAD-3

x = 9' 7" y = 7' 10" z = 23' 8"

Observations: Effervecience, Dry Soil, clay/orange soil

Sample Time (1540)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS., (1) HEXA CHROM., (2) 8290A/DRY WT., (1) Perchlorate/DRY WT., (1) 8330A

PAD-4 MS/MSD

x = 9'8" y = 8'6" z = 24'6"

Observations: Effervecience, Dry Soil

Sample Time (1630)

Samples Collected: (15) 8260C, (3) 8270D/DRY WT., (3) RCRA Mtls., (3) HEXA CHROM, (3) TPH-DRO, (3) 8290A/DRY WT., (3) Perchlorate/DRY WT., (3) 8330B

PAD-5

x = 9'10" y = 9'6" z = 20'6"

Observations: Effervecience, Dry Soil

Sample Time (1700)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS., (1) HEXA CHROM, (2) 8290A/DRY WT., (1) Perchlorate/DRY WT., (1) 8330B

PAD-6

x = 9'7" y = 11' z = 24'6"

Observations: Effervecience, Dry Soil, Sandy loam

Sample Time (1720)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT. (1) RCRA MTLS., (1) HEXA CHROM, (2) 8290A/DRY WT., (1) PERCHLORATE/DRY WT., (1) 8330B

PAD-7

x = 9'8" y = 11'6" z = 25'6"

Observations: Effervecience, Dry Soil

Sample Time (1735)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA Mtls., (1) TPH-DRO, (1) HEXA CHROM, (2) 8290A/DRY WT., (1) Perchlorate/DRY WT., (1) 8330B

7/25/2016 RFAAP Unit B OBG Soil FOB. #12

B03204-16
WMD/KFC

PAD-X (Taken from PAD-7)

Sample Time (1745)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS, (1) HEXACHROM, (1) TPH DRO/DRY WT., (1) Perchlorate/DRY WT., (1) 8330B

PAD-8

x = 9'8" y = 9'11" z = 24'3"

Observations: Effervecience, soil is very dry, tan colored

Sample Time (1800)

Samples Collected: (5) 8260C, (1) 8270D/DRY WT., (1) HEXA CHROM, (1) RCRA MTLS, (2) 8290A/DRY WT., (1) Perchlorate/DRY WT., (1) 8330B

For Berm-1 & Pond-1 see diagram for sampling locations on page #118.

Berm-1

Observations: Effervecience, soil is dry

Sample Time (1400)

Samples collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS., (2) 8290A/DRY WT., (1) 8330B

Pond-1

Observations: Effervecience, soil is dry

Sample Time (1410)

Samples collected: (5) 8260C, (1) 8270D/DRY WT., (1) RCRA MTLS., (2) 8290A/DRY WT., (1) 8330B

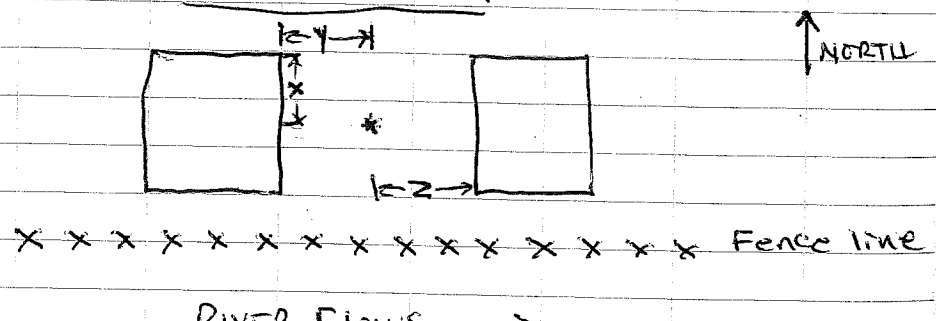
APPROVED BY [signature]

DATE 8/2/2016

General Notes.

- Weather - Clear, 70's, no wind
- PPE: White flame retardant overalls, chemical resistant boots, eye protection, nitrile & neoprene gloves.
- Equipment - Deconned dedicated sampling equipment and repacked sampling trowel stored in foil/ziplock bags after decon
- Decon Water - Collected and disposed of at Bio-treatment plant on grounds.
- Decon Material - Collected, bagged and disposed of at onsite waste area
- All samples - Collected then stored & transported on ice in coolers
- All ~~pads~~ pans located at the south end of each pad.
- Sampling procedures follow SAP specified in the permit with the following exception: No plastic sheeting laid on ground because sampling equipment was not staged on the ground.
- Sample Alloquat - Collected from 0-6 inches with dedicated stainless steel tulip bulb sampler.
- Sample Alloquat is placed in one gallon plastic ziplock bag and homogenized, alloquat then placed into sample containers.
- Equipment deconned according to the SAP in the permit.
- Refer to diagram for sampling point and location.

PAD DIAGRAM



* Samples collected from topographical low point between the mid-point length of each pan. Samples collected 2 feet north of the mid-point previously and collected 6" south of that point during this event.

9/15/16 RFAAP/OBG-SOIL B03204-216 KF-Lump F.B#12

PAD-6

X = 9' 7" Y = 10' 10" Z = 24' 8"

Observations: Brown, sandy loam, dry soil

Sample Time (0650)

Samples collected: (2) TM

DUP (Taken from PAD-6)

Sample Time (0700)

Samples Collected: (2) TM

APPROVED BY AT

DATE 9/19/16

APPENDIX E

HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS (2005 – 2015)

This report is presented in an electronic version and as a bound hard copy version.

Electronic Version: Depending upon the file size (limited to 50 MB per file), this Attachment/Appendix may be presented in a separate Portable Document Format (PDF) file associated with this report.

Hardcopy Version: This Attachment/Appendix is only provided in PDF on the enclosed compact disc (CD-ROM).

Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	51000	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	51000	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	51000	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	51000	SW846 8260B	mg/kg
1/8/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	51000	SW846 8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	31	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	31	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	31	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	31	SW846 8260B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	31	SW846 8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
11/17/2005	U		1.6		0.51		0.95		U		U		U		U		U		U		U		0.25	31000	SW846 8330	mg/kg
6/9/2006	U		U		2		0.75		U		U		U		U		U		U		U		0.25	31000	SW846 8330	mg/kg
1/11/2007	U		U		3.1		0.71		U		U		U		U		U		U		U		0.25	31000	SW846 8330	mg/kg
6/18/2007	U		U		16		U		U		U		U		U		U		U		U		0.25	31000	SW846 8330	mg/kg
1/8/2008	U		U		0.45		U		U		U		U		0.54		U		U		U		0.25	31000	SW846 8330	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.25	100	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.25	100	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	100	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	100	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	100	SW846 8330	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
11/17/2005	U		9.6		U		3.1		U		2		0.35		U		0.47		U		U		0.25	95	SW846 8330	mg/kg
6/9/2006	U		0.84		44		1.6		U		0.83		0.33		U		U		U		U		0.25	95	SW846 8330	mg/kg
1/11/2007	0.49		2.8		69		U		U		1.7		0.34		0.5		2.1		U		U		0.25	95	SW846 8330	mg/kg
6/18/2007	U		0.74		23		3.6		U		2.2		0.3		U		1.3		1.4		U		0.25	95	SW846 8330	mg/kg
1/8/2008	0.55		0.29		0.75		0.3		U		U		5.3	J	59		U		U		U		0.25	95	SW846 8330	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	3100	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg

See last page of this report for definitions.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
11/17/2005	U		0.79		U		1.1		U		0.82		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
6/9/2006	U		1.5		0.26		0.61		U		0.71		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
1/11/2007	U		1.1		0.46		U		U		1		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
6/18/2007	U		0.31		1.9		0.74		U		0.99		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
1/8/2008	0.34		U		U		U		U		U		U		0.73		U		U		U		0.25	2000	SW846 8330	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
11/17/2005	U		0.55		U		1.5		U		U		U		U		U		U		U		0.25	1000	SW846 8330	mg/kg
6/9/2006	U		U		U		1.5		U		U		U		U		U		U		U		0.25	1000	SW846 8330	mg/kg
1/11/2007	U		0.76		0.35		0.32		U		0.3		U		U		U		U		U		0.25	1000	SW846 8330	mg/kg
6/18/2007	U		U		0.7		0.33		U		U		U		U		U		U		U		0.25	1000	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		0.31		U		U		U		0.25	1000	SW846 8330	mg/kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
11/17/2005	U		1.7		U		0.53		U		U		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
6/9/2006	U		0.29		0.36		U		U		U		0.25		U		U		U		U		0.25	2000	SW846 8330	mg/kg
1/11/2007	U		0.28		0.5		U		U		0.32		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
6/18/2007	U		0.66		0.66		U		U		0.42		0.47		U		0.3		0.48		U		0.25	2000	SW846 8330	mg/kg
1/8/2008	U		U		0.27		U		U		U		0.36		1.7		U		U		U		0.25	2000	SW846 8330	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	5100	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.25	12	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.25	12	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	12	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	12	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	12	SW846 8330	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
1/8/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	2		SW846 8270C	mg/kg

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Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
3-Methylphenol					*CAS #: 108-39-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	51000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	51000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	51000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	51000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	51000	SW846 8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.25	20000	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.25	20000	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	20000	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	20000	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	20000	SW846 8330	mg/kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
11/17/2005	U		1.8		U		0.26		U		U		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
6/9/2006	U		0.39		0.34		U		U		0.34		0.28		U		U		U		U		0.25	2000	SW846 8330	mg/kg
1/11/2007	U		0.25		0.28		U		U		0.39		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
6/18/2007	U		0.67		0.82		0.3		U		0.64		0.47	J	U		0.28	J	0.41		U		0.25	2000	SW846 8330	mg/kg
1/8/2008	U		U		0.25		U		U		U		0.59		2.2		U		U		U		0.25	2000	SW846 8330	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	5100	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		2	7	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		2	7	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		2	7	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		2	7	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		2	7	SW846 8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
11/17/2005	U		0.45		U		0.34		U		U		U		U		U		U		U		0.25	170	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.25	170	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	170	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	170	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	170	SW846 8330	mg/kg

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Acetophenone					*CAS #: 98-86-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	100000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
Antimony					*CAS #: 7440-36-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.5	410	SW846 6010B	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.5	410	SW846 6010B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		6	410	SW846 6010B	mg/kg
6/18/2007	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	6	410	SW846 6010B	mg/kg
1/8/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	6	410	SW846 6010B	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
11/17/2005	2		3		1.4		1.8		1.2		1.7		1.2		2		1.7		3		4.6		1	16	SW846 6010B	mg/kg
6/9/2006	2		1.4		1.9		2.2		1.1		1.2		1.7		1.5		1.5		2.6		2.9		1	16	SW846 6010B	mg/kg
1/11/2007	1.8		2		1.9		1.9		U		2		1.8		2.7		4.5		3.6		4.3		1	16	SW846 6010B	mg/kg
6/18/2007	1.1		1.5		1.6		2.1		U		1.7		1.3		1.2		2.2		3.2		4		1	16	SW846 6010B	mg/kg
1/8/2008	2.1		1.2		1.5		1.4		U		U		1.6		2.3		2.6		2.4		2.8		1	16	SW846 6010B	mg/kg
Barium					*CAS #: 7440-39-3*																					
11/17/2005	85.9		127		51.9		88.8		28.4		81.1		78.4		123		105		125		153		20	72000	SW846 6010B	mg/kg
6/9/2006	131		54.4		64.2		79.1		48.8		54.8		135		156		109		110		79.6		20	72000	SW846 6010B	mg/kg
1/11/2007	156		72.9		66.5		78.1		39.3		70.6		99.1		213		134		147		149		20	72000	SW846 6010B	mg/kg
6/18/2007	249		65.9		61.4		71.7		50.7		80.7		156		111		93.5		97.2		83.7		20	72000	SW846 6010B	mg/kg
1/8/2008	172		73.4		81.9		70.8		38		30.3		85.4		133		121		117		141		20	72000	SW846 6010B	mg/kg
Benzene					*CAS #: 71-43-2*																					
11/17/2005	0.0063		U		U		0.0072		U		U		0.008		U		U		U		U	A	0.005	52	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	52	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	52	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	52	SW846 8260B	mg/kg
1/8/2008	U		U		U		0.0071		U		U		U		U		U		U		U		0.005	52	SW846 8260B	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	3.9	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.38	3.9	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	3.9	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg

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Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Benzo(a)pyrene					*CAS #: 50-32-8*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	0.39	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.38	0.39	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	0.39	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	0.39	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U	J	U		U		U		0.4	0.39	SW846 8270C	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	3.9	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.38	3.9	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	3.9	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U	J	U		U		U		0.4	3.9	SW846 8270C	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	39	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.38	39	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	39	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	39	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U	J	U		U		U		0.4	39	SW846 8270C	mg/kg
Benzoic acid					*CAS #: 65-85-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		2	4100000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		2	4100000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		2	4100000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		2	4100000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		2	4100000	SW846 8270C	mg/kg
Benzyl chloride					*CAS #: 100-44-7*																					
1/8/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005		SW846 8260B	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		0.82		U		U		0.4	200	SW846 8270C	mg/kg
6/18/2007	U	J	0.51	J	U	J	U		U		U	J	U	J	U		0.48		U	J	U		0.4	200	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	200	SW846 8270C	mg/kg

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Bromomethane					*CAS #: 74-83-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	15	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	0.0092		U		U		U		U	A	U		0.005	15	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	15	SW846 8260B	mg/kg
6/18/2007	U		0.0066		U		0.005		U		0.0059		0.079		U		0.0067		0.008		U		0.005	15	SW846 8260B	mg/kg
1/8/2008	U		0.02		U		U		U		U		U		U		U		U		U		0.01	15	SW846 8260B	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	200000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	200000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	200000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	200000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	200000	SW846 8270C	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.5	510	SW846 6010B	mg/kg
6/9/2006	0.58		U		U		U		U		U		U		U		U		U		U		0.5	510	SW846 6010B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		0.75		U		U		0.5	510	SW846 6010B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.5	510	SW846 6010B	mg/kg
1/8/2008	1.5		U		U		U		U		U		U		U		0.93		U		0.76		0.5	510	SW846 6010B	mg/kg
Carbon tetrachloride					*CAS #: 56-23-5*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	22	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	22	SW846 8260B	mg/kg
1/11/2007	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	22	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	22	SW846 8260B	mg/kg
1/8/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	22	SW846 8260B	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	20000	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	20000	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	20000	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	20000	SW846 8260B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	20000	SW846 8260B	mg/kg
Chloroform					*CAS #: 67-66-3*																					
11/17/2005	U		U		U		U		U		U		0.0071		U		U		U	A	U	A	0.005	10000	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	10000	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	10000	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	10000	SW846 8260B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	10000	SW846 8260B	mg/kg

See last page of this report for definitions.

Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Chloromethane					*CAS #: 74-87-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	6	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	6	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	6	SW846 8260B	mg/kg
6/18/2007	U		0.0064		U		U		U		U		0.03		U		U		U		U		0.005	6	SW846 8260B	mg/kg
1/8/2008	U		0.016		U		U		U		U		U		U		U		U		U		0.01	6	SW846 8260B	mg/kg
Chromium					*CAS #: 7440-47-3*																					
11/17/2005	24.2		16.7		9.1		12.1		3.8		14.6		13.6		19.1		17.3		21.2		28		1	3100	SW846 6010B	mg/kg
6/9/2006	17.1		9.3		13.8		13.4		7.7		11		11.8		13		18.1		19.8		14.3		1	3100	SW846 6010B	mg/kg
1/11/2007	16		11		10.6		14.7		5.9		14		14.5		16.5		16		27.1		25		1	3100	SW846 6010B	mg/kg
6/18/2007	15.3		7.5		14		13.9		8.4		16.4		13.8		11.7		15.1		19.3		16.2		1	3100	SW846 6010B	mg/kg
1/8/2008	20.1		13.5		13		12.1		7.3		6.7		14		18		13.9		21.1		24.4		1	3100	SW846 6010B	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	0.39	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	0.39	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	0.39	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	0.39	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U	J	U		U		U		0.4	0.39	SW846 8270C	mg/kg
Dibenzofuran					*CAS #: 132-64-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	2000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
11/17/2005	U		U		0.96		0.45		U		6.4		0.5		U		U		U		U		0.4	820000	SW846 8270C	mg/kg
6/9/2006	U		U		U		1.2		U		1.8		U		U		U		U		U		0.4	820000	SW846 8270C	mg/kg
1/11/2007	U		U		0.46		U	J	0.41		6.9		U		4.1		U		U		U		0.4	820000	SW846 8270C	mg/kg
6/18/2007	U	J	0.44	J	U	J	0.67		U		4.9	J	1.6	J	U		1.5		U	J	0.58		0.4	820000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		0.95		U		U		U		0.4	820000	SW846 8270C	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	10000000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	10000000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	10000000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	10000000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		1.2		U		U		U		0.4	10000000	SW846 8270C	mg/kg

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Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
11/17/2005	2		U		1.3		U		U		2.3		U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
6/9/2006	U		0.8		1.7		0.38		U		4.1		U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
1/11/2007	U		U		0.47		U	J	U		12		U		11		U		U		U		0.4	100000	SW846 8270C	mg/kg
6/18/2007	U	J	0.83	J	U	J	0.7		U		6.3	J	0.76	J	U		0.48		U	J	U		0.4	100000	SW846 8270C	mg/kg
1/8/2008	1.2		U		U		U		U		U		2		1.4		U		U		U		0.4	100000	SW846 8270C	mg/kg
Di-n-octyl phthalate					*CAS #: 117-84-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	41000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U	J	U		U		U		0.4	41000	SW846 8270C	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	41000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	200	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
HMX					*CAS #: 2691-41-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		2.2	51000	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		2.2	51000	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.5	51000	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		0.83		U		U		0.5	51000	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.5	51000	SW846 8330	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/9/2006	U		U		U	A	U		U		U	A	U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	3.9	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U	J	U		U		U		0.4	3.9	SW846 8270C	mg/kg

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Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
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All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Lead					*CAS #: 7439-92-1*																					
11/17/2005	414		471		188		208		11.8		660		199		259		140		81.3		104		3	800	SW846 6010B	mg/kg
6/9/2006	234		181		216		242		245		676		317		51.4		63.2		66		128		3	800	SW846 6010B	mg/kg
1/11/2007	201		193		202		164		165		781		339		290		219		68.9		122		0.3	800	SW846 6010B	mg/kg
6/18/2007	271	J	195	J	217	J	191	J	190	J	336		512	J	73.9	J	135	J	149	J	164	J	0.3	800	SW846 6010B	mg/kg
1/8/2008	417		183		579		219		436		251		251	J	684		203		78.2		92.2		0.3	800	SW846 6010B	mg/kg
Mercury					*CAS #: 7439-97-6*																					
11/17/2005	U		U		U		U		U		U		0.127		U		U		U		U		0.11	0.13	SW846 7471A	mg/kg
6/9/2006	U		U		U		U		U		U		0.12		U		U		U		0.11		0.11	0.13	SW846 7471A	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.11	0.13	SW846 7471A	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.11	0.13	SW846 7471A	mg/kg
1/8/2008	U		U		U		U		U		U		0.34		U		U		U		U		0.11	0.13	SW846 7471A	mg/kg
Methylene chloride					*CAS #: 75-09-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U	A	0.005	380	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U		U		0.005	380	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	380	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	380	SW846 8260B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	380	SW846 8260B	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	20000	SW846 8270C	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.4	20000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	20000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	20000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	20000	SW846 8270C	mg/kg
Nickel					*CAS #: 7440-02-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.25	510	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.25	510	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	510	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.25	510	SW846 8330	mg/kg
1/8/2008	0.43		1.1		2		2.5		0.53		0.46		0.61	J	0.91		0.34		0.79		0.45		0.25	510	SW846 8330	mg/kg

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Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Nitroglycerin					*CAS #: 55-63-0*																					
11/17/2005	U		2.8		U		20		U		26		U		U		U		U		U		2.5	200	SW846 8332	mg/kg
6/9/2006	U		3		U		49		U		7.7		U		U		U		U		U		2.5	200	SW846 8332	mg/kg
1/11/2007	17		U		U		U		34		100		U		U		U		U		U		2.5	200	SW846 8332	mg/kg
6/18/2007	U		U		U		5.5		U		8.1		5.7		U		U		U		U		2.5	200	SW846 8332	mg/kg
1/8/2008	U		U		U		6.5		U		U		3.2		5.2		U		U		U		2.5	200	SW846 8332	mg/kg
N-Nitrosodiphenylamine					*CAS #: 86-30-6*																					
11/17/2005	3.5		U		U		U		U		U		U		U		U		U		U		1.6	26000	SW846 8270C	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		1.6	26000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		1.6	26000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		1.6	26000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	26000	SW846 8270C	mg/kg
Phenol					*CAS #: 108-95-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	310000	SW846 8270C	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.4	310000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	310000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	310000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	310000	SW846 8270C	mg/kg
Pyrene					*CAS #: 129-00-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
1/11/2007	U		U		U		U	J	U		U		U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
6/18/2007	U	J	U	J	U	J	U		U		U	J	U	J	U		U		U	J	U		0.4	31000	SW846 8270C	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
RDX					*CAS #: 121-82-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.5	26	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.5	26	SW846 8330	mg/kg
1/11/2007	U		U		U		1.2		U		U		U		U		U		U		U		0.5	26	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.5	26	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.5	26	SW846 8330	mg/kg
Selenium					*CAS #: 7782-49-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.6	5100	SW846 6010B	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.6	5100	SW846 6010B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.6	5100	SW846 6010B	mg/kg
6/18/2007	U		U		0.69		U		U		0.73		U		U		1.3		1.2		1.3		0.6	5100	SW846 6010B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.6	5100	SW846 6010B	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Silver					*CAS #: 7440-22-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U	A	0.005	5.3	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	5.3	SW846 8260B	mg/kg
1/11/2007	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	5.3	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	5.3	SW846 8260B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	5.3	SW846 8260B	mg/kg
Tetryl					*CAS #: 479-45-8*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.65	10000	SW846 8330	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		0.65	10000	SW846 8330	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		0.65	10000	SW846 8330	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.65	10000	SW846 8330	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.65	10000	SW846 8330	mg/kg
Toluene					*CAS #: 108-88-3*																					
11/17/2005	U		U		U		0.011		U		U		U		U		U		U		U		0.005	200000	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U		U		0.005	200000	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	200000	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	200000	SW846 8260B	mg/kg
1/8/2008	0.007		U		U		U		U		U		U		U		U		U		U		0.005	200000	SW846 8260B	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
11/17/2005	59		-		-		49		-		-		27		-		-		-		-		50	11000	SW846 8015B	mg/kg
6/9/2006	U		-		-		U		-		-		U		-		-		-		-		50	11000	SW846 8015B	mg/kg
1/11/2007	12		-		-		23		-		-		24		-		-		-		-		10	11000	SW846 8015B	mg/kg
6/18/2007	14	J	-		-		20	J	-		-		20	J	-		-		-		-		10	11000	SW846 8015B	mg/kg
1/8/2008	42		-		-		20		-		-		U		-		-		-		-		10	11000	SW846 8015B	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
11/17/2005	0.0072		U		U		U		U		U		U		U		U		U		U	A	0.005	7.2	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	7.2	SW846 8260B	mg/kg
1/11/2007	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	7.2	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	7.2	SW846 8260B	mg/kg
1/8/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	7.2	SW846 8260B	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit .
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*QL/RL*	*Action Limit*	*Method*	*Unit*
Vinyl chloride					*CAS #: 75-01-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U	A	U	A	0.005	4	SW846 8260B	mg/kg
6/9/2006	U		U		U		U		U	A	U		U		U		U		U	A	U		0.005	4	SW846 8260B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U	J	U		U	J	U		0.005	4	SW846 8260B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		0.005	4	SW846 8260B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	4	SW846 8260B	mg/kg
Zinc					*CAS #: 7440-66-6*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg
6/9/2006	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg
1/11/2007	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg
6/18/2007	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg
1/8/2008	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg

Definitions: QL Denotes limit of quantitation. **RL** Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above QL/RL. **UA** Denotes analyte not detected at or above adjusted sample QL/RL. **J** Denotes analyte reported at or above QL/RL and associated result is estimated. When used with "U" (i.e., "UJ"), denotes analyte not **detected** at or above QL/RL and QL/RL is estimated. When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted QL/RL and adjusted QL/RL is estimated. **R** Denotes result rejected. (-) Denotes not sampled. Action limit obtained from Permit (09/05) -Attachment 1II.C-23 and -24- OBG Soil Monitoring Program. Results for Method 8290 Dioxin/Furan submitted as a separate report.

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	51000	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	51000	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	51000	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	51000	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	51000	SW846 8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	31	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	31	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	31	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	31	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	31	SW846 8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	31000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	31000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	31000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	31000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	31000	SW846 8330	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	100	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	100	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	100	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	100	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	100	SW846 8330	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		0.51		0.25	95	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		0.85		0.25	95	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		1.2		0.25	95	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		1		0.25	95	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		0.43		0.25	95	SW846 8330	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	3100	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	3100	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	3100	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	3100	SW846 8270C	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		0.25		0.25	2000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		0.42		U		U		0.25	2000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		0.82		U		0.3		0.25	2000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	1000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	1000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	1000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	1000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	1000	SW846 8330	mg/kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		0.46		0.25	2000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		1.2		0.25	2000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		0.27		0.25	2000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	5100	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	5100	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	5100	SW846 8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	12	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	12	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	12	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	12	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	12	SW846 8330	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	2		SW846 8270C	mg/kg

See last page of this report for definitions.

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Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
3-Methylphenol					*CAS #: 108-39-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	51000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	51000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	51000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	51000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	51000	SW846 8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	20000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	20000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	20000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	20000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	20000	SW846 8330	mg/kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		0.72		0.25	2000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		1.1		0.25	2000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		0.29		0.25	2000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	5100	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	5100	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	5100	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	5100	SW846 8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		2	7	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	2	7	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		2	7	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	2	7	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		2	7	SW846 8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	170	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	170	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	170	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	170	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	170	SW846 8330	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	100000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	100000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	100000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	100000	SW846 8270C	mg/kg
Antimony					*CAS #: 7440-36-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.5	410	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.5	410	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		6	410	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U	J	6	410	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	6	410	SW846 6010B	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
11/17/2005	-		-		-		-		-		-		-		-		2.5		1.4		1.7		1	16	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		2		1.5		1.7		1	16	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		2.7		1.9		2.6		1	16	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		2.1		1.8		1.2		1	16	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		2.3		U		1.4		1	16	SW846 6010B	mg/kg
Barium					*CAS #: 7440-39-3*																					
11/17/2005	-		-		-		-		-		-		-		-		129		97.7		143		20	72000	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		130		110		107		20	72000	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		162		95.8		126		20	72000	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		125		91.4		92.1		20	72000	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		147		108		91.3		20	72000	SW846 6010B	mg/kg
Benzene					*CAS #: 71-43-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	52	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	52	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	52	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	52	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	52	SW846 8260B	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	3.9	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.38	3.9	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	3.9	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	3.9	SW846 8270C	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Benzo(a)pyrene					*CAS #: 50-32-8*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	0.39	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.38	0.39	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	0.39	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	0.39	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U		0.4	0.39	SW846 8270C	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	3.9	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.38	3.9	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	3.9	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U		0.4	3.9	SW846 8270C	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.38	39	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.38	39	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	39	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	39	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U		0.4	39	SW846 8270C	mg/kg
Benzoic acid					*CAS #: 65-85-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		2	4100000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	2	4100000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		2	4100000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	2	4100000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		2	4100000	SW846 8270C	mg/kg
Benzyl chloride					*CAS #: 100-44-7*																					
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005		SW846 8260B	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
11/17/2005	U		U		U		U		U		U		U		U		0.69		1.5		0.63		0.4	200	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.4	200	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		0.64		U		U		0.4	200	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		1.9		1.1	J	U	J	0.4	200	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		2.1		1.5		U		0.4	200	SW846 8270C	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Bromomethane					*CAS #: 74-83-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	15	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		0.019		U		0.005	15	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		0.0064	J	U		U	J	0.005	15	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		0.0086	J	0.0063	J	0.0065		0.005	15	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.01	15	SW846 8260B	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	200000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	200000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	200000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	200000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	200000	SW846 8270C	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.5	510	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.5	510	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.5	510	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.5	510	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.5	510	SW846 6010B	mg/kg
Carbon tetrachloride					*CAS #: 56-23-5*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	22	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	22	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	22	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	22	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	22	SW846 8260B	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	20000	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	20000	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	20000	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	20000	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	20000	SW846 8260B	mg/kg
Chloroform					*CAS #: 67-66-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	10000	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	10000	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	10000	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	10000	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	10000	SW846 8260B	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Chloromethane					*CAS #: 74-87-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	6	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	6	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	6	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	6	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.01	6	SW846 8260B	mg/kg
Chromium					*CAS #: 7440-47-3*																					
11/17/2005	-		-		-		-		-		-		-		-		17.1		11.4		17.9		1	3100	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		15.5		11.6		14.9		1	3100	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		17.2		12.6		15.4		1	3100	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		15.3		15		15.6		1	3100	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		19.3		11.8		16.4		1	3100	SW846 6010B	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	0.39	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	0.39	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	0.39	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	0.39	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U		0.4	0.39	SW846 8270C	mg/kg
Dibenzofuran					*CAS #: 132-64-9*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	2000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	2000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	2000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	2000	SW846 8270C	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
11/17/2005	U		U		U		U		U		U		U		U		0.79		0.7		U		0.4	820000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		0.43		0.37		0.89		0.4	820000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		0.73		0.42		5.2		0.4	820000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	0.63	J	0.4	820000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		0.84		0.43		U		0.4	820000	SW846 8270C	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
11/17/2005	U		U		U		U		U		U		U		U		1.1		U		U		0.4	10000000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	10000000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	10000000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	10000000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		0.48		0.62		U		0.4	10000000	SW846 8270C	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
11/17/2005	U		U		U		U		U		U		U		U		0.48		1.1		U		0.4	100000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.4	100000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		0.75		U		1.6		0.4	100000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	0.46	J	0.4	100000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	100000	SW846 8270C	mg/kg
Di-n-octyl phthalate					*CAS #: 117-84-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	41000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	41000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U		0.4	41000	SW846 8270C	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	41000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	41000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	41000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	41000	SW846 8270C	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	200	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	200	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	200	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	200	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	200	SW846 8270C	mg/kg
HMX					*CAS #: 2691-41-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		2.2	51000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		2.2	51000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.5	51000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.5	51000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.5	51000	SW846 8330	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U	A	0.4	3.9	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	3.9	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	3.9	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U		0.4	3.9	SW846 8270C	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Lead					*CAS #: 7439-92-1*																					
11/17/2005	-		-		-		-		-		-		-		-		219		208		98.1		3	800	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		170		235		367		3	800	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		190		118		164		0.3	800	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		222	J	144	J	103	J	0.3	800	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		181		179		105		0.3	800	SW846 6010B	mg/kg
Mercury					*CAS #: 7439-97-6*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.11	0.13	SW846 7471A	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.11	0.13	SW846 7471A	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.11	0.13	SW846 7471A	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.11	0.13	SW846 7471A	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.11	0.13	SW846 7471A	mg/kg
Methylene chloride					*CAS #: 75-09-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	380	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.005	380	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	380	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	380	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	380	SW846 8260B	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	20000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.4	20000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	20000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	20000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	20000	SW846 8270C	mg/kg
Nickel					*CAS #: 7440-02-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.25	510	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.25	510	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	510	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.25	510	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		0.99		1.3		0.34		0.25	510	SW846 8330	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Nitroglycerin					*CAS #: 55-63-0*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		2.5	200	SW846 8332	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		3.2		2.5	200	SW846 8332	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		3.9		2.5	200	SW846 8332	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		2.5	200	SW846 8332	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		2.5	200	SW846 8332	mg/kg
N-Nitrosodiphenylamine					*CAS #: 86-30-6*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		1.6	26000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		1.8		1.6	26000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		1.9		1.6	26000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	1.6	26000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	26000	SW846 8270C	mg/kg
Phenol					*CAS #: 108-95-2*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	310000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.4	310000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	310000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	310000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	310000	SW846 8270C	mg/kg
Pyrene					*CAS #: 129-00-0*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.4	31000	SW846 8270C	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.4	31000	SW846 8270C	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U	J	U	J	0.4	31000	SW846 8270C	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.4	31000	SW846 8270C	mg/kg
RDX					*CAS #: 121-82-4*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.5	26	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.5	26	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.5	26	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.5	26	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.5	26	SW846 8330	mg/kg
Selenium					*CAS #: 7782-49-2*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.6	5100	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.6	5100	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.6	5100	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		1.1		0.84		0.75		0.6	5100	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.6	5100	SW846 6010B	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Silver					*CAS #: 7440-22-4*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	5.3	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	5.3	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	5.3	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	5.3	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	5.3	SW846 8260B	mg/kg
Tetryl					*CAS #: 479-45-8*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		0.65	10000	SW846 8330	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		0.65	10000	SW846 8330	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		0.65	10000	SW846 8330	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		0.65	10000	SW846 8330	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.65	10000	SW846 8330	mg/kg
Toluene					*CAS #: 108-88-3*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	200000	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	200000	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	200000	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	200000	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	200000	SW846 8260B	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
11/17/2005	-		-		-		-		-		-		-		-		-		-		-		50	11000	SW846 8015B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		-		-		-		50	11000	SW846 8015B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		-		-		-		10	11000	SW846 8015B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		-		-		-		10	11000	SW846 8015B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		-		-		-		10	11000	SW846 8015B	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	7.2	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	7.2	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U	J	0.012	J	0.005	7.2	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	7.2	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	7.2	SW846 8260B	mg/kg

Table 2B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit.
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*QL/RL*	*Action Limit*	*Method*	*Unit*
Vinyl chloride					*CAS #: 75-01-4*																					
11/17/2005	U		U		U		U		U		U		U		U		U		U		U		0.005	4	SW846 8260B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U	A	U		U		0.005	4	SW846 8260B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U	J	U		U	J	0.005	4	SW846 8260B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U	J	U	J	U		0.005	4	SW846 8260B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		0.005	4	SW846 8260B	mg/kg
Zinc					*CAS #: 7440-66-6*																					
11/17/2005	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
6/9/2006	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
1/11/2007	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
6/18/2007	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
1/8/2008	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg

Definitions: QL Denotes limit of quantitation. **RL** Detones reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above QL/RL. **UA** Denotes analyte not detected at or above adjusted sample QL/RL. **J** Denotes analyte reported at or above QL/RL and associated result is estimated. When used with "U" (i.e., "UJ"), denotes analyte not **detected** at or above QL/RL and QL/RL is estimated**.** When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted QL/RL and adjusted QL/RL is estimated. **R** Denotes result rejected. (-) Denotes not sampled. Action limit obtained from Permit (09/05) -Attachment 1II.C-23 and -24- OBG Soil Monitoring Program.

Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	1100	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1100	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1100	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1100	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1100	SW846 8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	2.2	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	2.2	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	2.2	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	2.2	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	2.2	SW846 8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
11/24/2008	U		0.51		2.1		U		U		U		U		U		U		U		U		0.25	27000	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	27000	SW846 8330	mg/kg
12/9/2009	U	J	U	J	1.6	J	0.49	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.25	27000	SW846 8330	mg/kg
3/2/2010	U		U		0.92		7.4		U		0.13		U		U		U		U		U		0.1	27000	8330	mg/kg
11/17/2010	U		U		1.9		0.16	J	U		U		U		U		U		U		U		0.1	27000	8330A	mg/Kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	62	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	62	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	62	SW846 8330	mg/kg
3/2/2010	U		U		0.26	J	1.6	J	U		U		U		U		U		U		U		0.1	62	8330	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.1	62	8330A	mg/Kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
11/24/2008	U		1.5		2.1		0.4		U		1.7		U		0.42		2		U		U		0.25	79	SW846 8330	mg/kg
1/28/2009	U		0.31		U		0.36		U		0.59		U		U		0.36		0.71		U		0.25	79	SW846 8330	mg/kg
12/9/2009	U	J	1.3	J	1.1	J	0.32	J	U		1.6	J	U	J	1.1	J	1.2	J	U		1.2	J	0.25	79	SW846 8330	mg/kg
3/2/2010	U	J	0.42	J	0.29	J	0.26	J	U	J	1.1	J	0.26	J	0.8	J	0.32	J	U	J	U	J	0.1	79	8330	mg/kg
11/17/2010	0.11		0.43		3.1		0.19		U		0.91		1.5	J	0.16	J	0.3		U		0.14		0.1	79	8330A	mg/Kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	1800	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	1800	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	1800	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	1800	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	1800	SW846 8270C	mg/kg

See last page of this report for definitions.

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Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
11/24/2008	U		0.57		U		U		0.62		1.3		U		U		0.42		U		U		0.25	1200	SW846 8330	mg/kg
1/28/2009	U		0.25		U		U		U		1.8		U		0.45		U		U		U		0.25	1200	SW846 8330	mg/kg
12/9/2009	U		0.37		0.44		0.31		U		0.9		U		U		U		U		U		0.25	1200	SW846 8330	mg/kg
3/2/2010	0.13		0.18		0.34		2.4		0.39		1.1	J	0.21	J	8.5		U		U		U		0.1	1200	8330	mg/kg
11/17/2010	U		0.11		1.4		0.13		U		0.5		U		0.37		U		U		U		0.1	1200	8330A	mg/Kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
11/24/2008	U		0.49		U		U		U		U		U		U		U		U		U		0.25	620	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		0.3		U		U		U		U		U		0.25	620	SW846 8330	mg/kg
12/9/2009	U	J	U	J	0.59	J	1.1	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.25	620	SW846 8330	mg/kg
3/2/2010	U		U	J	0.52		14	J	U		U		U		U		U		U		U		0.2	620	8330	mg/kg
11/17/2010	U		U		0.72		U		U		U		U		U		U		U		U		0.2	620	8330A	mg/Kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
11/24/2008	U		0.48		U		U		U		U		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	2000	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		0.39		U		U		U		U		0.25	2000	SW846 8330	mg/kg
3/2/2010	U	J	0.3	J	U	J	U	J	U	J	0.21	J	U	J	U	J	U	J	U	J	U	J	0.2	2000	8330	mg/kg
11/17/2010	U		0.47		0.27	J	U		U		0.23		U		U		U		U		U		0.2	2000	8330A	mg/Kg
2-Chlorophenol					*CAS #: 95-57-8*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	5100	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	5100	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	5100	SW846 8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	13	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	13	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	13	SW846 8330	mg/kg
3/2/2010	U		U		U		0.8		U		U		U		U		U		U		U		0.2	13	8330	mg/kg
11/17/2010	U		U		0.2		U		U		U		U		U		U		U		U		0.2	13	8330A	mg/Kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		2	0.16	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		1.6	0.16	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		1.6	0.16	SW846 8270C	mg/kg
3/2/2010	U	J	U	J	U	J	U	A J	U	J	U	A J	U	J	U	J	U	J	U	J	U	J	1.9	0.16	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U	J	U		U		U	J	U	J	2	0.16	SW846 8270C	mg/kg

See last page of this report for definitions.

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Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
3-Methylphenol					*CAS #: 108-39-4*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	31000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	31000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	31000	SW846 8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	12000	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	12000	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	12000	SW846 8330	mg/kg
3/2/2010	U		U		U		1.2	J	U		U		U		U		U		U		U		0.2	12000	8330	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.2	12000	8330A	mg/Kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
11/24/2008	U		0.58		U		U		U		U		U		U		0.28		U		U		0.25	1900	SW846 8330	mg/kg
1/28/2009	U		U		U		U		0.33		U		U		U		U		U		U		0.25	1900	SW846 8330	mg/kg
12/9/2009	U	J	U	J	U	J	U	J	U	J	U	J	0.31	J	U	J	U	J	U	J	U	J	0.25	1900	SW846 8330	mg/kg
3/2/2010	U	J	0.25	J	U	J	U	J	U	J	0.28	J	U	J	U	J	U	J	U	J	U	J	0.2	1900	8330	mg/kg
11/17/2010	U	J	0.34		0.35		U		U		0.3	J	U		U		U		U		U		0.2	1900	8330A	mg/Kg
4-Methylphenol					*CAS #: 106-44-5*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	3100	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	3100	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	3100	SW846 8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		2	7	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		1.6	7	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		1.6	7	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		1.9	7	SW846 8270C	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	2	7	SW846 8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	110	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	110	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	110	SW846 8330	mg/kg
3/2/2010	U		U		U		0.78		U		U		U		U		U		U		U		0.2	110	8330	mg/kg
11/17/2010	U		U		0.26		U		U		U		U		U		U		U		U		0.2	110	8330A	mg/Kg

See last page of this report for definitions.

Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	100000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	100000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	100000	SW846 8270C	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.4	100000	SW846 8270C	mg/kg
Antimony					*CAS #: 7440-36-0*																					
11/24/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	1	J	U	J	6	410	SW846 6010B	mg/kg
1/28/2009	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	10	410	SW846 6010B	mg/kg
12/9/2009	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	10	410	SW846 6010B	mg/kg
3/2/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	7	410	SW846 6010B	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	7	410	SW846 6010B	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
11/24/2008	U		2.4		1.1		7.3		U		1.4		1.1		2.2		2.6		3.9		8.3		1	15.8	SW846 6010B	mg/kg
1/28/2009	1.7		2.1		1.2		1.5		U		1.7		2.1		2.7		1.9		3.4		3.2		1	15.8	SW846 6010B	mg/kg
12/9/2009	1.7		2.5		1.7		2.5		1.3		2.3		1.7		2		2.9		3.3		2.8		1	15.8	SW846 6010B	mg/kg
3/2/2010	2		1.5		1.5		2.4		1.4		1.4		1.4		2.7		1.8		2.8		2.6		1	15.8	SW846 6010B	mg/kg
11/17/2010	1.1		2.3		1.9		1.4		U		1.2		1.4		2.4		1.3		2.6		2.4		1	15.8	SW846 6010B	mg/kg
Barium					*CAS #: 7440-39-3*																					
11/24/2008	75.4		113		37.1		101		26.8		70.7		74.6		125		120		147		247		20	190000	SW846 6010B	mg/kg
1/28/2009	77.7		54.7		103		52.9		67.1		216		85.7		102		108		113		166		20	190000	SW846 6010B	mg/kg
12/9/2009	104		110		45.2		74.9		74.7		86.4		107		180		132		127		105		20	190000	SW846 6010B	mg/kg
3/2/2010	102		67.4		42.1		92.7		77.7		92.4		79.7		142		131		145		171		20	190000	SW846 6010B	mg/kg
11/17/2010	128		110		55.2		54.6		62.8		85.4		75	J	144		103		119		136		20	190000	SW846 6010B	mg/kg
Benzene					*CAS #: 71-43-2*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	5.6	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		0.0046		U		U		U		U		U		U		0.005	5.6	SW846 8260B	mg/kg
12/9/2009	0.0075		U		U		U		U		U		U		U		U		U		U		0.005	5.6	SW846 8260B	mg/kg
3/2/2010	0.016		U		0.0064		U		U		U		U		U		U		U		U		0.005	5.6	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	5.6	SW846 8260B	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	2.1	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	2.1	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg

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Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Benzo(a)pyrene					*CAS #: 50-32-8*																					
11/24/2008	U		U	J	U		U		U	A	U	JA	U		U		U		U		U		0.02	0.21	SW846 8270C	mg/kg
1/28/2009	U	A J	U	A	U		U	A J	U	J	U	A J	U		U		U		0.05		U		0.02	0.21	SW846 8270C	mg/kg
12/9/2009	U		U		U		U	J	U		U	A	U		U		U	J	0.088		U		0.02	0.21	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U	J	U	A	U		U	J	U		0.058		0.051		0.024	0.21	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U	J	U	J	U		U		U		0.089		0.053		0.02	0.21	SW846 8270C	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
11/24/2008	U		U	J	U		U		U	A	U	JA	U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg
1/28/2009	U	A J	U	A	U		U	A J	U	J	U	A J	U		U		U		U		U		0.33	2.1	SW846 8270C	mg/kg
12/9/2009	U		U		U		U	J	U		U	A	U		U		U	J	U		U		0.33	2.1	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U	J	U	A	U		U	J	U		U		U		0.4	2.1	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U	J	U	J	U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
11/24/2008	U		U	J	U		U		U	A	U	JA	U		U		U		U		U		0.4	21	SW846 8270C	mg/kg
1/28/2009	U	A J	U	A	U		U	A J	U	J	U	A J	U		U		U		U		U		0.33	21	SW846 8270C	mg/kg
12/9/2009	U		U		U		U	J	U		U	A	U		U		U	J	U		U		0.33	21	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U	J	U	A	U		U	J	U		U		U		0.4	21	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U	J	U	J	U		U		U		U		U		0.4	21	SW846 8270C	mg/kg
Benzoic acid					*CAS #: 65-85-0*																					
11/24/2008	U	J	U	J	U	J	U		U	A J	U	A J	U	J	U	J	U		U		U		2	2500000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		3.3	2500000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		3.3	2500000	SW846 8270C	mg/kg
3/2/2010	U	J	U	J	U	J	U	AJ	U	J	U	AJ	U	J	U	J	U	J	U	J	U	J	1.9	2500000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U	J	U		U		U	J	U	J	2	2500000	SW846 8270C	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
11/24/2008	U	J	U		U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	10	17	SW846 8260B	mg/kg
1/28/2009	U	J	U		U		U		U		U	J	U		U		U		U		U		0.005	17	SW846 8260B	mg/kg
12/9/2009	U		U		U	J	U		U		U		U		U		U		U		U		0.005	17	SW846 8260B	mg/kg
3/2/2010	U	J	U		U	J	U	J	U		U		U		U		U		U		U		0.005	17	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U	J	U		U		U		U		U	J	0.005	17	SW846 8260B	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	120	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	120	SW846 8270C	mg/kg
12/9/2009	U		U		0.9		U		U		U	A	U		U		U	J	U		U	A	0.33	120	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	120	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		0.43		U		U		0.4	120	SW846 8270C	mg/kg

See last page of this report for definitions.

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Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Bromomethane					*CAS #: 74-83-9*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	35	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		0.0088		U		U		U		U		U		U		0.005	35	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	35	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	35	SW846 8260B	mg/kg
11/17/2010	U	J	0.0067	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	35	SW846 8260B	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	910	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	910	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	910	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	910	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	910	SW846 8270C	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
11/24/2008	2.1		0.61		U		U		U		U		U		U		U		U		0.77		0.5	810	SW846 6010B	mg/kg
1/28/2009	0.86		U		U		U		U		U		U		U		U		U		1.1		0.5	810	SW846 6010B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.5	810	SW846 6010B	mg/kg
3/2/2010	1.4		U		U		U		1.1		U		U		U		U		U		U		0.6	810	SW846 6010B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.6	810	SW846 6010B	mg/kg
Carbon tetrachloride					*CAS #: 56-23-5*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	1.3	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1.3	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1.3	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1.3	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1.3	SW846 8260B	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	1500	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1500	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1500	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1500	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1500	SW846 8260B	mg/kg
Chloroform					*CAS #: 67-66-3*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	1.5	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1.5	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1.5	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1.5	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1.5	SW846 8260B	mg/kg

Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Chloromethane					*CAS #: 74-87-3*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	8.4	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		0.0077		U		U		U		U		U		U		0.005	8.4	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	8.4	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	8.4	SW846 8260B	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	0.0065	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	8.4	SW846 8260B	mg/kg
Chromium					*CAS #: 7440-47-3*																					
11/24/2008	18.9		15.6		8.3		15.2		6.6		18.7		11.1		11.8		18.6		25.7		19.5		1	1400	SW846 6010B	mg/kg
1/28/2009	21.3		10.8		15.3		9.8		11.3		14.3		14.6		15.1		17.7		21.3		21.9		1	1400	SW846 6010B	mg/kg
12/9/2009	21.8		17.7		12		15.7		12.3		20.4		13.3		21.3		20.5		23.2		19.4		1	1400	SW846 6010B	mg/kg
3/2/2010	32.5	J	10.5	J	9.4	J	15.7	J	14	J	14.7	J	12.9	J	21	J	19.4	J	25.6	J	30.7	J	1	1400	SW846 6010B	mg/kg
11/17/2010	16.6		14.9		14		11.9		10		25.1		14.1		15		18.7		22.1		24.9		1	1400	SW846 6010B	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
11/24/2008	U		U	J	U		U		U	A	U	JA	U		U		U		U		U		0.02	0.21	SW846 8270C	mg/kg
1/28/2009	U	A J	U	A	U		U	A J	U	J	U	A J	U		U		U		U		U		0.02	0.21	SW846 8270C	mg/kg
12/9/2009	U		U		U		U	J	U		U	A	U		U		U	J	U		U		0.02	0.21	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U	J	U	A	U		U	J	U		U		U		0.024	0.21	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U	J	U	J	U		U		U		U		U		0.02	0.21	SW846 8270C	mg/kg
Dibenzofuran					*CAS #: 132-64-9*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	2000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	2000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	2000	SW846 8270C	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
11/24/2008	U		U		U		0.44		U	A	6		U		U		U		U		U		0.4	490000	SW846 8270C	mg/kg
1/28/2009	1.1	J	U	A	U	J	U	A	1.4	J	2.4	J	0.64	J	U	J	U	J	U	J	U		0.33	490000	SW846 8270C	mg/kg
12/9/2009	U	J	0.6	J	U	J	0.42	J	U	J	2.4	J	0.83	J	U	J	1.4	J	U	J	0.53	J	0.33	490000	SW846 8270C	mg/kg
3/2/2010	U		0.47		U		4.3		0.64		6.2		0.48		U		U		U		U		0.4	490000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		3.7		0.67		U		U		U		U		0.4	490000	SW846 8270C	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
11/24/2008	U		U		U		0.81		U	A	U	A	U		U		U		U		U		0.4	10000000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	10000000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		0.44		U	J	U		U		0.33	10000000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	10000000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	10000000	SW846 8270C	mg/kg

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Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
11/24/2008	U		0.54		U		0.88		U	A	7.6		U		U		0.82		U		U		0.4	62000	SW846 8270C	mg/kg
1/28/2009	2.1		4.6		U		9.5		0.59		4.4		U		U		U		0.81		U		0.33	62000	SW846 8270C	mg/kg
12/9/2009	1.1		0.41		U		0.6		U		3.4		U		U		U	J	U		0.61		0.33	62000	SW846 8270C	mg/kg
3/2/2010	U		U		U		2.1		0.88		3.1		U		U		U		U		U		0.4	62000	SW846 8270C	mg/kg
11/17/2010	1.2		1.6		1		0.55		U		3.5		U		U		U		U		2.1		0.4	62000	SW846 8270C	mg/kg
Di-n-octyl phthalate					*CAS #: 117-84-0*																					
11/24/2008	U		U	J	U		U		U	A	U	JA	U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
1/28/2009	U	A J	U	A	U		U	A J	U	J	U	A J	U		U		U		U		U		0.33	41000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U	J	U		U	A	U		U		U	J	U		U		0.33	41000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U	J	U	A	U		U	J	U		U		U		0.4	41000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	41000	SW846 8270C	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	22000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	22000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	22000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	22000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	22000	SW846 8270C	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.05	120	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	0.005	120	SW846 8270C	mg/kg
12/9/2009	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	AJ	U	A	U	A	0.005	120	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.06	120	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.06	120	SW846 8270C	mg/kg
HMX					*CAS #: 2691-41-0*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.5	49000	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		2.2	49000	SW846 8330	mg/kg
12/9/2009	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	2.2	49000	SW846 8330	mg/kg
3/2/2010	U		U	J	0.34	J	U		U		U	J	U		32	J	U		U		U		0.2	49000	8330	mg/kg
11/17/2010	U		U		U		U	J	U		U		U		U		U		U		U		0.2	49000	8330A	mg/Kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
11/24/2008	U		U	J	U		U		U	A	U	JA	U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg
1/28/2009	U	A J	U	A	U		U	A J	U	J	U	A J	U		U		U		U		U		0.33	2.1	SW846 8270C	mg/kg
12/9/2009	U		U		U		U	J	U		U	A	U		U		U	J	U		U		0.33	2.1	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U	J	U	A	U		U	J	U		U		U		0.4	2.1	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U	J	U	J	U		U		U		U		U		0.4	2.1	SW846 8270C	mg/kg

See last page of this report for definitions.

Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Lead					*CAS #: 7439-92-1*																					
11/24/2008	359		382		363		346		163		792		221		239		256		93.9		188		0.3	800	SW846 6010B	mg/kg
1/28/2009	631	J	213	J	21.2	J	146	J	596	J	565	J	444	J	255	J	193	J	129	J	185	J	0.3	800	SW846 6010B	mg/kg
12/9/2009	215		387		506		251		362		714		227		149		279		78.1		216		0.3	800	SW846 6010B	mg/kg
3/2/2010	564		215		251		421		686		775		279	J	433		139		74.8		42.5		0.3	800	SW846 6010B	mg/kg
11/17/2010	99.9		265		175		161		449		674		251		303		96.3		75.2		126		0.3	800	SW846 6010B	mg/kg
Mercury					*CAS #: 7439-97-6*																					
11/24/2008	U	J	U	J	U	J	U	J	U	J	0.12	J	U	J	U	J	U		U		U		0.11	28	SW846 7471A	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.1	28	SW846 7471A	mg/kg
12/9/2009	U		U		U		U		U		0.19		U		0.12		U		U		U		0.1	28	SW846 7471A	mg/kg
3/2/2010	U		U		U		U		U		U		U		0.14		U		U		U		0.11	28	SW846 7471A	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.1	28	SW846 7471A	mg/kg
Methylene chloride					*CAS #: 75-09-2*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.005	54	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	54	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	54	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	54	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	54	SW846 8260B	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	20	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	20	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	20	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	20	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	20	SW846 8270C	mg/kg
Nickel					*CAS #: 7440-02-0*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		4	20000	SW846 6010B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		4	20000	SW846 6010B	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.25	280	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	280	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.25	280	SW846 8330	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.1	280	8330	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.1	280	8330A	mg/Kg

See last page of this report for definitions.

Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Nitroglycerin					*CAS #: 55-63-0*																					
11/24/2008	U		U		U		5.1		U		30		2.6	J	U		3.9		U		U		2.5	62	SW846 8332	mg/kg
1/28/2009	U		U		U		U		5.7		8		U	J	U		U		U		U		2.5	62	SW846 8332	mg/kg
12/9/2009	U	J	U	J	U	J	6.5	J	U	J	6.7	J	6.9	J	U	J	U	J	U	J	U	J	2.5	62	SW846 8332	mg/kg
3/2/2010	U	J	0.68	J	1.2	J	2.3	J	2.6	J	35	J	4.2	J	2.6	J	0.29	J	U	J	U	J	0.2	62	8332	mg/kg
11/17/2010	1	J	0.63	J	0.5	J	3.1	J	6.9	J	1.6	J	0.45	J	0.27	J	U	J	U	J	3.3	J	0.2	62	8332	mg/Kg
N-Nitrosodiphenylamine					*CAS #: 86-30-6*																					
11/24/2008	U		U		U		0.61		U	A	U	A	U		U		U		U		U		0.4	15000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		1.6	15000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		1.6	15000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	0.72		U	A	U		U		U		U		U		0.4	15000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	15000	SW846 8270C	mg/kg
Phenol					*CAS #: 108-95-2*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	180000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	180000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	180000	SW846 8270C	mg/kg
3/2/2010	U		U		U		U	A	U		U	A	U		U		U		U		U		0.4	180000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	180000	SW846 8270C	mg/kg
Pyrene					*CAS #: 129-00-0*																					
11/24/2008	U		U		U		U		U	A	U	A	U		U		U		U		U		0.4	17000	SW846 8270C	mg/kg
1/28/2009	U	A	U	A	U		U	A	U		U	A	U		U		U		U		U		0.33	17000	SW846 8270C	mg/kg
12/9/2009	U		U		U		U		U		U	A	U		U		U	J	U		U		0.33	17000	SW846 8270C	mg/kg
3/2/2010	U		U		U		-		U		U	A	U		U		U		U		U		0.4	17000	SW846 8270C	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.4	17000	SW846 8270C	mg/kg
RDX					*CAS #: 121-82-4*																					
11/24/2008	U		U		U		0.53		U		U		U		U		U		U		U		0.5	24	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		1	24	SW846 8330	mg/kg
12/9/2009	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	1	24	SW846 8330	mg/kg
3/2/2010	U	J	U		U	J	1.1	J	U		U	J	U		U		U		U		U		0.2	24	8330	mg/kg
11/17/2010	U		U		U	J	U		U		U		U		U		U		U		U		0.2	24	8330A	mg/Kg
Selenium					*CAS #: 7782-49-2*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		0.69		0.6	5100	SW846 6010B	mg/kg
1/28/2009	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	0.5	5100	SW846 6010B	mg/kg
12/9/2009	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	U	A	0.5	5100	SW846 6010B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.6	5100	SW846 6010B	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.6	5100	SW846 6010B	mg/kg

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Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	QL/RL	Action Limit	Method	Unit
Silver					*CAS #: 7440-22-4*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	2.7	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	2.7	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	2.7	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	2.7	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	2.7	SW846 8260B	mg/kg
Tetryl					*CAS #: 479-45-8*																					
11/24/2008	U		U		U		U		U		U		U		U		U		U		U		0.65	2500	SW846 8330	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.65	2500	SW846 8330	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.65	2500	SW846 8330	mg/kg
3/2/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.25	2500	8330	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.25	2500	8330A	mg/Kg
Toluene					*CAS #: 108-88-3*																					
11/24/2008	U		0.011		U		U		U		U	J	U		U		U		U		U		0.005	46000	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	46000	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	46000	SW846 8260B	mg/kg
3/2/2010	0.016		U		U		U		U		U		U		U		U		U		U		0.005	46000	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	46000	SW846 8260B	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
11/24/2008	17		-		-		46		-		-		28		-		-		-		-		11	11000	SW846 8015B	mg/kg
1/28/2009	72		-		-		59		-		-		37		-		-		-		-		10	11000	SW846 8015B	mg/kg
12/9/2009	14	J	-		-		64	J	-		-		18	J	-		-		-		-		10	11000	SW846 8015B	mg/kg
3/2/2010	31	J	-		-		64	J	-		-		22	J	-		-		-		-		12	11000	SW846 8015B	mg/kg
11/17/2010	31		-		-		560		-		-		23		-		-		-		-		11	11000	SW846 8015B	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	14	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	14	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	14	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	14	SW846 8260B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	14	SW846 8260B	mg/kg

See last page of this report for definitions.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Table 3A - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*QL/RL*	*Action Limit*	*Method*	*Unit*
Vinyl chloride					*CAS #: 75-01-4*																					
11/24/2008	U		U		U		U		U		U	J	U		U		U		U		U		0.005	1.7	SW846 8260B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1.7	SW846 8260B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		0.005	1.7	SW846 8260B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		0.005	1.7	SW846 8260B	mg/kg
11/17/2010	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	1.7	SW846 8260B	mg/kg
Zinc					*CAS #: 7440-66-6*																					
11/24/2008	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U		U		U		2500	310000	SW846 6010B	mg/kg
1/28/2009	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg
12/9/2009	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg
3/2/2010	U		U		U		U		U		U		U		U		U		U		U		2	310000	SW846 6010B	mg/kg
11/17/2010	U		U		U		U		U		U		U		U		U		U		U		2	310000	SW846 6010B	mg/kg

Definitions: QL Denotes laboratory limit of quantitation. **RL** Denotes permit reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above QL/RL.
UA Denotes analyte not detected at or above adjusted sample QL/RL. **J** Denotes analyte reported at or above QL/RL and associated result is estimated. When used with "U" (i.e., "UJ"), denotes analyte not **detected** at or above QL/RL and QL/RL is estimated**.** When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted QL/RL and adjusted QL/RL is estimated.
R Denotes result rejected. (-) Denotes not sampled. **Action limit** obtained from permit modification approved December 18, 2008.

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
QL at or below the permit RL and action limit unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and action limit unless noted.

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	1100	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1100	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1100	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1100	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1100	SW846 8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	2.2	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	2.2	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	2.2	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	2.2	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	2.2	SW846 8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	27000	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	27000	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	27000	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	27000	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	27000	8330A	mg/Kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	62	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	62	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	62	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	62	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	62	8330A	mg/Kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		1.2		0.25	79	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		0.26		0.25	79	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		0.48	J	U	J	4.9	J	0.25	79	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		0.15	J	U	J	0.32	J	0.1	79	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		0.38		0.1	79	8330A	mg/Kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	1800	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	1800	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	1800	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	1800	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	1800	SW846 8270C	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		0.33		0.25	1200	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	1200	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		0.37	J	0.62		0.25	1200	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		0.13	J	U		U	J	0.1	1200	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		1.2		U		21		0.1	1200	8330A	mg/Kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	620	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	620	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	620	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	620	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		1.8	J	0.2	620	8330A	mg/Kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.2	2000	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	2000	8330A	mg/Kg
2-Chlorophenol					*CAS #: 95-57-8*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	5100	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	5100	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	5100	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	5100	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	5100	SW846 8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	13	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	13	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	13	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	13	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	13	8330A	mg/Kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		2	0.16	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	1.6	0.16	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		1.6	0.16	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U	J	U	A J	U	J	1.9	0.16	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U		2	0.16	SW846 8270C	mg/kg

See last page of this report for definitions.

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
3-Methylphenol					*CAS #: 108-39-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	31000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	31000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	31000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	31000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	31000	SW846 8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	12000	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	12000	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	12000	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	12000	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	12000	8330A	mg/Kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	1900	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	1900	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	1900	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.2	1900	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	1900	8330A	mg/Kg
4-Methylphenol					*CAS #: 106-44-5*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	3100	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	3100	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	3100	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	3100	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	3100	SW846 8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		2	7	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	1.6	7	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		1.6	7	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		1.9	7	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	2	7	SW846 8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	110	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	110	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	110	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	110	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	110	8330A	mg/Kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	100000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	100000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	100000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	100000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.4	100000	SW846 8270C	mg/kg
Antimony					*CAS #: 7440-36-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	J	6	410	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	10	410	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	10	410	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	7	410	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	7	410	SW846 6010B	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
11/24/2008	-		-		-		-		-		-		-		-		2.3		1.5		1.9		1	15.8	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		2.3		1.2		1.2		1	15.8	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		1.8		1.5		1.8		1	15.8	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		1.8		1.5		U		1	15.8	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		2		1.3		1.7		1	15.8	SW846 6010B	mg/kg
Barium					*CAS #: 7440-39-3*																					
11/24/2008	-		-		-		-		-		-		-		-		135		99.6		98.2		20	190000	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		150		95.5		85.8		20	190000	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		113		84.5		87.3		20	190000	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		140		95.2		100		20	190000	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		122		93		94.4		20	190000	SW846 6010B	mg/kg
Benzene					*CAS #: 71-43-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	5.6	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	5.6	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	5.6	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	5.6	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	5.6	SW846 8260B	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	2.1	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	2.1	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	2.1	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	2.1	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	2.1	SW846 8270C	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Benzo(a)pyrene					*CAS #: 50-32-8*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U	J	U		0.02	0.21	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	A J	U	A	0.02	0.21	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U		0.02	0.21	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.024	0.21	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.02	0.21	SW846 8270C	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U	J	U		0.4	2.1	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	A J	U	A	0.33	2.1	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U		0.33	2.1	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	2.1	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	2.1	SW846 8270C	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U	J	U		0.4	21	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	A J	U	A	0.33	21	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U		0.33	21	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	21	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	21	SW846 8270C	mg/kg
Benzoic acid					*CAS #: 65-85-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		2	2500000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	3.3	2500000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		3.3	2500000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U	J	U	AJ	U	J	1.9	2500000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U		2	2500000	SW846 8270C	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U	J	U	J	U	A J	10	17	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	17	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	17	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	17	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	17	SW846 8260B	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	120	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	120	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		0.96		U		U		0.33	120	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		0.48		1.7		U		0.4	120	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		0.61		0.99		U		0.4	120	SW846 8270C	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Bromomethane					*CAS #: 74-83-9*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	35	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		0.0089		U		0.005	35	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		0.0073		U		U		0.005	35	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	35	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	35	SW846 8260B	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	910	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	910	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	910	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	910	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	910	SW846 8270C	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.5	810	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.5	810	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.5	810	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.6	810	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.6	810	SW846 6010B	mg/kg
Carbon tetrachloride					*CAS #: 56-23-5*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	1.3	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1.3	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1.3	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1.3	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1.3	SW846 8260B	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	1500	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1500	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1500	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1500	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1500	SW846 8260B	mg/kg
Chloroform					*CAS #: 67-66-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	1.5	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1.5	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1.5	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1.5	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1.5	SW846 8260B	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Chloromethane					*CAS #: 74-87-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	8.4	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	8.4	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	8.4	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	8.4	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	8.4	SW846 8260B	mg/kg
Chromium					*CAS #: 7440-47-3*																					
11/24/2008	-		-		-		-		-		-		-		-		18.2		12.7		15.9		1	1400	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		18.8		10.3		14.4		1	1400	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		15.2		13.3		19.1		1	1400	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		17	J	11.5	J	13.3	J	1	1400	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		18		12.5		26.1		1	1400	SW846 6010B	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U	J	U		0.02	0.21	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	A J	U	A	0.02	0.21	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U		0.02	0.21	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.024	0.21	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.02	0.21	SW846 8270C	mg/kg
Dibenzofuran					*CAS #: 132-64-9*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	2000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	2000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	2000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	2000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	2000	SW846 8270C	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
11/24/2008	-		-		-		-		-		-		-		-		2		0.69		0.73		0.4	490000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		1.1	J	2.8	J	U	A	0.33	490000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		2.0	J	0.43	J	U	J	0.33	490000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		1.1		U	A	U		0.4	490000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		0.82		1.4		1.8		0.4	490000	SW846 8270C	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	0.39		U		0.4	10000000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	10000000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		2.1		U		U		0.33	10000000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		1		U		0.4	10000000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	10000000	SW846 8270C	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
11/24/2008	-		-		-		-		-		-		-		-		0.91		U		0.83		0.4	62000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		1.2		1.9		0.33	62000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		0.85		U		U		0.33	62000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		0.48		U	A	U		0.4	62000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		0.69		2.3		1.7		0.4	62000	SW846 8270C	mg/kg
Di-n-octyl phthalate					*CAS #: 117-84-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U	J	U		0.4	41000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	A J	U	A	0.33	41000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U		0.33	41000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	41000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	41000	SW846 8270C	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	22000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	22000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	22000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	22000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	22000	SW846 8270C	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.05	120	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	A	U	A	U	A	0.005	120	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	A	U	A	U	A	0.005	120	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.06	120	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.06	120	SW846 8270C	mg/kg
HMX					*CAS #: 2691-41-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.5	49000	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		2.2	49000	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	2.2	49000	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		2.3	J	U	J	0.2	49000	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	49000	8330A	mg/Kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U	J	U		0.4	2.1	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	J	U	A J	U	A	0.33	2.1	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U		0.33	2.1	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	2.1	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	2.1	SW846 8270C	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Lead					*CAS #: 7439-92-1*																					
11/24/2008	-		-		-		-		-		-		-		-		251		203		131		0.3	800	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		236	J	340	J	82.5	J	0.3	800	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		291		140		55.7		0.3	800	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		198		168		81.5		0.3	800	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		167		184		310		0.3	800	SW846 6010B	mg/kg
Mercury					*CAS #: 7439-97-6*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.11	28	SW846 7471A	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.1	28	SW846 7471A	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.1	28	SW846 7471A	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.11	28	SW846 7471A	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	28	SW846 7471A	mg/kg
Methylene chloride					*CAS #: 75-09-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	54	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	54	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	54	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	54	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	54	SW846 8260B	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	20	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	20	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	20	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	20	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	20	SW846 8270C	mg/kg
Nickel					*CAS #: 7440-02-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		4	20000	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		4	20000	SW846 6010B	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.25	280	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	280	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.25	280	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	280	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.1	280	8330A	mg/Kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Nitroglycerin					*CAS #: 55-63-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		2.5	62	SW846 8332	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		6.4		U		U		2.5	62	SW846 8332	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		12	J	5.6	J	U	J	2.5	62	SW846 8332	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		2.4	J	2.1	J	0.64	J	0.2	62	8332	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		1.3	J	0.79	J	15	J	0.2	62	8332	mg/Kg
N-Nitrosodiphenylamine					*CAS #: 86-30-6*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	15000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		0.9		U	A	1.6	15000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		1.6	15000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	15000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		0.75		0.4	15000	SW846 8270C	mg/kg
Phenol					*CAS #: 108-95-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	180000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	180000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	180000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	180000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	180000	SW846 8270C	mg/kg
Pyrene					*CAS #: 129-00-0*																					
11/24/2008	-		-		-		-		-		-		-		-		U	A	U		U		0.4	17000	SW846 8270C	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U	A	U	A	0.33	17000	SW846 8270C	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.33	17000	SW846 8270C	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U	A	U		0.4	17000	SW846 8270C	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.4	17000	SW846 8270C	mg/kg
RDX					*CAS #: 121-82-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.5	24	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		1	24	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	J	U	J	U	J	1	24	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	24	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.2	24	8330A	mg/Kg
Selenium					*CAS #: 7782-49-2*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.6	5100	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U	A	U		U	A	0.5	5100	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U	A	U	A	U	A	0.5	5100	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.6	5100	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.6	5100	SW846 6010B	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	QL/RL	Action Limit	Method	Unit
Silver					*CAS #: 7440-22-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	2.7	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	2.7	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	2.7	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	2.7	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	2.7	SW846 8260B	mg/kg
Tetryl					*CAS #: 479-45-8*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		0.65	2500	SW846 8330	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.65	2500	SW846 8330	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.65	2500	SW846 8330	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	2500	8330	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	2500	8330A	mg/Kg
Toluene					*CAS #: 108-88-3*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	46000	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	46000	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	46000	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	46000	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	46000	SW846 8260B	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
11/24/2008	-		-		-		-		-		-		-		-		-		-		-		11	11000	SW846 8015B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		-		-		-		10	11000	SW846 8015B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		-		-		-		10	11000	SW846 8015B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		-		-		-		12	11000	SW846 8015B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		-		-		-		11	11000	SW846 8015B	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	14	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	14	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	14	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	14	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	14	SW846 8260B	mg/kg

Table 3B - Summary of Analytical Results for Soil Samples Above the Permit Reporting Limit
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*QL/RL*	*Action Limit*	*Method*	*Unit*
Vinyl chloride					*CAS #: 75-01-4*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U	A	0.005	1.7	SW846 8260B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1.7	SW846 8260B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		0.005	1.7	SW846 8260B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		0.005	1.7	SW846 8260B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	1.7	SW846 8260B	mg/kg
Zinc					*CAS #: 7440-66-6*																					
11/24/2008	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
1/28/2009	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
12/9/2009	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg
3/2/2010	-		-		-		-		-		-		-		-		U		U		U		2	310000	SW846 6010B	mg/kg
11/17/2010	-		-		-		-		-		-		-		-		U		U		U		2	310000	SW846 6010B	mg/kg

Definitions: QL Denotes limit of quantitation. **RL** Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above QL/RL. **UA** Denotes analyte not detected at or above adjusted sample QL/RL. **J** Denotes analyte reported at or above QL/RL and associated result is estimated. When used with "U" (i.e., "UJ"), denotes analyte not **detected** at or above QL/RL and QL/RL is estimated**.** When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted QL/RL and adjusted QL/RL is estimated. **R** Denotes result rejected. (-) Denotes not sampled. Action limit and RL obtained from permit modification approved December 18, 2008.

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
QL at or below the permit RL and action limit unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and action limit unless noted.

Table 2A - Summary of Analytical Results Above RL
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					CAS #: 75-35-4																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	1100	SW846 8260B	mg/kg
1,2-Dichloroethane					CAS #: 107-06-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	2.2	SW846 8260B	mg/kg
1,3,5-Trinitrobenzene					CAS #: 99-35-4																					
1/31/2011	U		U		0.5		U		U		U		U		U		U		U		U		0.25	27000	SW-846 8330A	mg/Kg
1,3-Dinitrobenzene					CAS #: 99-65-0																					
1/31/2011	U		U		U		U	J	U		U	J	U		U		U		U		U		0.25	62	SW-846 8330A	mg/Kg
2,4,6-Trinitrotoluene					CAS #: 118-96-7																					
1/31/2011	0.37		0.71	J	0.77		0.51		U		3.9		U		0.34		U		U		U		0.25	79	SW-846 8330A	mg/Kg
2,4-Dichlorophenol					CAS #: 120-83-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	1800	SW846 8270C	mg/kg
2,4-Dinitrotoluene					CAS #: 121-14-2																					
1/31/2011	0.28	J	U		U		U		U		1.0	J	U		U		U		U		U		0.25	1200	SW-846 8330A	mg/Kg
2,6-Dinitrotoluene					CAS #: 606-20-2																					
1/31/2011	U		U		U		U		U		0.31		U		U		U		U		U		0.25	620	SW-846 8330A	mg/Kg
2-Amino-4,6-dinitrotoluene					CAS #: 35572-78-2																					
1/31/2011	U		U		0.37		U		U		0.62		U		U		U		U		U		0.25	2000	SW-846 8330A	mg/Kg
2-Chlorophenol					CAS #: 95-57-8																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	5100	SW846 8270C	mg/kg
2-Nitrotoluene					CAS #: 88-72-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.25	13	SW-846 8330A	mg/Kg
3,3'-Dimethylbenzidine					CAS #: 119-93-7																					
1/31/2011	U	A	U		U		U		U		U	A	U		U		U		U		U		1.6	0.16	SW846 8270C	mg/kg
3-Methylphenol					CAS #: 108-39-4																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	31000	SW846 8270C	mg/kg
3-Nitrotoluene					CAS #: 99-08-1																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.25	12000	SW-846 8330A	mg/Kg
4-Amino-2,6-dinitrotoluene					CAS #: 19406-51-0																					
1/31/2011	U		U		0.27		U		U		0.72		U		U		U		U		U		0.25	1900	SW-846 8330A	mg/Kg
4-Methylphenol					CAS #: 106-44-5																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	3100	SW846 8270C	mg/kg
4-Nitrophenol					CAS #: 100-02-7																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		1.6	7	SW846 8270C	mg/kg
4-Nitrotoluene					CAS #: 99-99-0																					
1/31/2011	U		U		U		U		U		0.41		U		U		U		U		U		0.25	110	SW-846 8330A	mg/Kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results Above RL
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Acetophenone					CAS #: 98-86-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	100000	SW846 8270C	mg/kg
Antimony					CAS #: 7440-36-0																					
1/31/2011	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	10	410	SW846 6010B	mg/kg
Arsenic					CAS #: 7440-38-2																					
1/31/2011	2.4		1.3		1.8		2.6		1.2		1.5		1.5		2.1		1.8		U		3		1	15.8	SW846 6010B	mg/kg
Barium					CAS #: 7440-39-3																					
1/31/2011	119		70		78.4		62.2		84.6		82.9		92.6		138		108		89.7		160		20	190000	SW846 6010B	mg/kg
Benzene					CAS #: 71-43-2																					
1/31/2011	0.0069		U		U		U		U		U		U		U		U		U		U		0.005	5.6	SW846 8260B	mg/kg
Benzo(a)anthracene					CAS #: 56-55-3																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	2.1	SW846 8270C	mg/kg
Benzo(a)pyrene					CAS #: 50-32-8																					
1/31/2011	U		U		U		U		U		U		U		U	J	U		U		0.056		0.02	0.21	SW846 8270C	mg/kg
Benzo(b)fluoranthene					CAS #: 205-99-2																					
1/31/2011	U		U		U		U		U		U		U		U	J	U		U		U		0.33	2.1	SW846 8270C	mg/kg
Benzo(k)fluoranthene					CAS #: 207-08-9																					
1/31/2011	U		U		U		U		U		U		U		U	J	U		U		U		0.33	21	SW846 8270C	mg/kg
Benzoic acid					CAS #: 65-85-0																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		3.3	2500000	SW846 8270C	mg/kg
Benzyl chloride					CAS #: 100-44-7																					
1/31/2011	U	J	U		U		U		U		U		U		U		U		U		U	J	0.005	17	SW846 8260B	mg/kg
bis(2-Ethylhexyl) phthalate					CAS #: 117-81-7																					
1/31/2011	U	J	U	J	U	J	2.3	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.33	120	SW846 8270C	mg/kg
Bromomethane					CAS #: 74-83-9																					
1/31/2011	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	35	SW846 8260B	mg/kg
Butyl benzyl phthalate					CAS #: 85-68-7																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	910	SW846 8270C	mg/kg
Cadmium					CAS #: 7440-43-9																					
1/31/2011	1.1	J	U	J	0.68	J	1.7	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.5	810	SW846 6010B	mg/kg
Carbon tetrachloride					CAS #: 56-23-5																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	1.3	SW846 8260B	mg/kg
Chlorobenzene					CAS #: 108-90-7																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	1500	SW846 8260B	mg/kg
Chloroform					CAS #: 67-66-3																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	1.5	SW846 8260B	mg/kg

See last page of this report for definitions.

Table 2A - Summary of Analytical Results Above RL
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Chloromethane					CAS #: 74-87-3																					
1/31/2011	0.007	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.005	8.4	SW846 8260B	mg/kg
Chromium					CAS #: 7440-47-3																					
1/31/2011	82.1	J	11.9	J	16.6	J	21	J	11.4	J	19.7	J	13.8	J	15.9	J	17	J	14.7	J	28	J	1	1400	SW846 6010B	mg/kg
Dibenz(a,h)anthracene					CAS #: 53-70-3																					
1/31/2011	U		U		U		U		U		U		U		U	J	U		U		U		0.02	0.21	SW846 8270C	mg/kg
Dibenzofuran					CAS #: 132-64-9																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	2000	SW846 8270C	mg/kg
Diethyl phthalate					CAS #: 84-66-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		0.54		U		0.33	490000	SW846 8270C	mg/kg
Dimethyl phthalate					CAS #: 131-11-3																					
1/31/2011	U		U		U		U		U		U		U		2.3		U		U		U		0.33	10000000	SW846 8270C	mg/kg
Di-n-butyl phthalate					CAS #: 84-74-2																					
1/31/2011	21		U		2.3		U		U		U		U		U		0.4		U		U		0.33	62000	SW846 8270C	mg/kg
Di-n-octyl phthalate					CAS #: 117-84-0																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	41000	SW846 8270C	mg/kg
Fluoranthene					CAS #: 206-44-0																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	22000	SW846 8270C	mg/kg
Hexachloroethane					CAS #: 67-72-1																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	120	SW846 8270C	mg/kg
HMX					CAS #: 2691-41-0																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		2.2	49000	SW-846 8330A	mg/Kg
Indeno(1,2,3-cd)pyrene					CAS #: 193-39-5																					
1/31/2011	U		U		U		U		U		U		U		U	J	U		U		U		0.33	2.1	SW846 8270C	mg/kg
Lead					CAS #: 7439-92-1																					
1/31/2011	196		436		526		189		61.1		708		286		226		110		51.4		68		0.3	800	SW846 6010B	mg/kg
Mercury					CAS #: 7439-97-6																					
1/31/2011	U		U		U		U		U		0.15		0.14		U		U		U		U		0.1	28	SW846 7471A	mg/kg
Methylene chloride					CAS #: 75-09-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	54	SW846 8260B	mg/kg
Naphthalene					CAS #: 91-20-3																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	20	SW846 8270C	mg/kg
Nickel					CAS #: 7440-02-0																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		330	20000	SW846 6010B	mg/kg
Nitrobenzene					CAS #: 98-95-3																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.25	280	SW-846 8330A	mg/Kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results Above RL
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Nitroglycerin					CAS #: 55-63-0																					
1/31/2011	U	J	5.1	J	U	J	3.8	J	U	J	35	J	U	J	U	J	U	J	U	J	U	J	2.5	62	SW-846 8332	mg/Kg
N-Nitrosodiphenylamine					CAS #: 86-30-6																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		1.6	15000	SW846 8270C	mg/kg
Phenol					CAS #: 108-95-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	180000	SW846 8270C	mg/kg
Pyrene					CAS #: 129-00-0																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.33	17000	SW846 8270C	mg/kg
RDX					CAS #: 121-82-4																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		1	24	SW-846 8330A	mg/Kg
Selenium					CAS #: 7782-49-2																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.5	5100	SW846 6010B	mg/kg
Silver					CAS #: 7440-22-4																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		1	5100	SW846 6010B	mg/kg
Tetrachloroethene					CAS #: 127-18-4																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	2.7	SW846 8260B	mg/kg
Tetryl					CAS #: 479-45-8																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.65	2500	SW-846 8330A	mg/Kg
Toluene					CAS #: 108-88-3																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	46000	SW846 8260B	mg/kg
TPH (as Diesel)					CAS #: Q797																					
1/31/2011	34		-		-		23		-		-		18	J	-		-		-		-		10	11000	SW846 8015B	mg/kg
Trichloroethene					CAS #: 79-01-6																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	14	SW846 8260B	mg/kg
Vinyl chloride					CAS #: 75-01-4																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		0.005	1.7	SW846 8260B	mg/kg
Zinc					CAS #: 7440-66-6																					
1/31/2011	U		U		U		U		U		U		U		U		U		U		U		2500	310000	SW846 6010B	mg/kg

Definitions: RL Denotes permit reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above RL. AL Denotes permit Action limit.
J Denotes analyte reported at or above RL and associated result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the RL and estimated due to data validation.
A Denotes sample required dilution and laboratory QL and laboratory detection limit adjusted accordingly. Lab QL and laboratory detection limit above permit Action limit.
R Denotes result rejected. (-) Denotes not sampled. **Action limit and RL** obtained from permit modification – Table 1 Attachment II.C-24, updated December 18, 2008, Class 1 permit modification.

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the permit RL and action limit unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and action limit unless noted.

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	1100	SW846 8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	2.2	SW846 8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	27000	SW-846 8330A	mg/Kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	62	SW-846 8330A	mg/Kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
1/31/2011	-		-		-		-		-		-		-		-		U		5.7		3.7		0.25	79	SW-846 8330A	mg/Kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	1800	SW846 8270C	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
1/31/2011	-		-		-		-		-		-		-		-		0.29	J	U		U		0.25	1200	SW-846 8330A	mg/Kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	620	SW-846 8330A	mg/Kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		0.49		0.25	2000	SW-846 8330A	mg/Kg
2-Chlorophenol					*CAS #: 95-57-8*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	5100	SW846 8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	13	SW-846 8330A	mg/Kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		1.6	0.16	SW846 8270C	mg/kg
3-Methylphenol					*CAS #: 108-39-4*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	31000	SW846 8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	12000	SW-846 8330A	mg/Kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		0.59		0.25	1900	SW-846 8330A	mg/Kg
4-Methylphenol					*CAS #: 106-44-5*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	3100	SW846 8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		1.6	7	SW846 8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	110	SW-846 8330A	mg/Kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Acetophenone					CAS #: 98-86-2																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	100000	SW846 8270C	mg/kg
Antimony					CAS #: 7440-36-0																					
1/31/2011	-		-		-		-		-		-		-		-		U	J	U	J	U	J	10	410	SW846 6010B	mg/kg
Arsenic					CAS #: 7440-38-2																					
1/31/2011	-		-		-		-		-		-		-		-		2.2		U		1.3		1	15.8	SW846 6010B	mg/kg
Barium					CAS #: 7440-39-3																					
1/31/2011	-		-		-		-		-		-		-		-		151		97.7		75.4		20	190000	SW846 6010B	mg/kg
Benzene					CAS #: 71-43-2																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	5.6	SW846 8260B	mg/kg
Benzo(a)anthracene					CAS #: 56-55-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	2.1	SW846 8270C	mg/kg
Benzo(a)pyrene					CAS #: 50-32-8																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.02	0.21	SW846 8270C	mg/kg
Benzo(b)fluoranthene					CAS #: 205-99-2																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	2.1	SW846 8270C	mg/kg
Benzo(k)fluoranthene					CAS #: 207-08-9																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	21	SW846 8270C	mg/kg
Benzoic acid					CAS #: 65-85-0																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		3.3	2500000	SW846 8270C	mg/kg
Benzyl chloride					CAS #: 100-44-7																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	17	SW846 8260B	mg/kg
bis(2-Ethylhexyl) phthalate					CAS #: 117-81-7																					
1/31/2011	-		-		-		-		-		-		-		-		0.98	J	U	J	U	J	0.33	120	SW846 8270C	mg/kg
Bromomethane					CAS #: 74-83-9																					
1/31/2011	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	35	SW846 8260B	mg/kg
Butyl benzyl phthalate					CAS #: 85-68-7																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	910	SW846 8270C	mg/kg
Cadmium					CAS #: 7440-43-9																					
1/31/2011	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.5	810	SW846 6010B	mg/kg
Carbon tetrachloride					CAS #: 56-23-5																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	1.3	SW846 8260B	mg/kg
Chlorobenzene					CAS #: 108-90-7																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	1500	SW846 8260B	mg/kg
Chloroform					CAS #: 67-66-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	1.5	SW846 8260B	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Chloromethane					CAS #: 74-87-3																					
1/31/2011	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.005	8.4	SW846 8260B	mg/kg
Chromium					CAS #: 7440-47-3																					
1/31/2011	-		-		-		-		-		-		-		-		17.9	J	15	J	12.7	J	1	1400	SW846 6010B	mg/kg
Dibenz(a,h)anthracene					CAS #: 53-70-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.02	0.21	SW846 8270C	mg/kg
Dibenzofuran					CAS #: 132-64-9																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	2000	SW846 8270C	mg/kg
Diethyl phthalate					CAS #: 84-66-2																					
1/31/2011	-		-		-		-		-		-		-		-		0.64		U		U		0.33	490000	SW846 8270C	mg/kg
Dimethyl phthalate					CAS #: 131-11-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	10000000	SW846 8270C	mg/kg
Di-n-butyl phthalate					CAS #: 84-74-2																					
1/31/2011	-		-		-		-		-		-		-		-		0.58		U		1.5		0.33	62000	SW846 8270C	mg/kg
Di-n-octyl phthalate					CAS #: 117-84-0																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	41000	SW846 8270C	mg/kg
Fluoranthene					CAS #: 206-44-0																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	22000	SW846 8270C	mg/kg
Hexachloroethane					CAS #: 67-72-1																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	120	SW846 8270C	mg/kg
HMX					CAS #: 2691-41-0																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		2.2	49000	SW-846 8330A	mg/Kg
Indeno(1,2,3-cd)pyrene					CAS #: 193-39-5																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	2.1	SW846 8270C	mg/kg
Lead					CAS #: 7439-92-1																					
1/31/2011	-		-		-		-		-		-		-		-		219		45.8		85.6		0.3	800	SW846 6010B	mg/kg
Mercury					CAS #: 7439-97-6																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.1	28	SW846 7471A	mg/kg
Methylene chloride					CAS #: 75-09-2																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	54	SW846 8260B	mg/kg
Naphthalene					CAS #: 91-20-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	20	SW846 8270C	mg/kg
Nickel					CAS #: 7440-02-0																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		330	20000	SW846 6010B	mg/kg
Nitrobenzene					CAS #: 98-95-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.25	280	SW-846 8330A	mg/Kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Nitroglycerin					CAS #: 55-63-0																					
1/31/2011	-		-		-		-		-		-		-		-		U	J	U	J	U	J	2.5	62	SW-846 8332	mg/Kg
N-Nitrosodiphenylamine					CAS #: 86-30-6																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		1.6	15000	SW846 8270C	mg/kg
Phenol					CAS #: 108-95-2																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	180000	SW846 8270C	mg/kg
Pyrene					CAS #: 129-00-0																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.33	17000	SW846 8270C	mg/kg
RDX					CAS #: 121-82-4																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		1	24	SW-846 8330A	mg/Kg
Selenium					CAS #: 7782-49-2																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.5	5100	SW846 6010B	mg/kg
Silver					CAS #: 7440-22-4																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		1	5100	SW846 6010B	mg/kg
Tetrachloroethene					CAS #: 127-18-4																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	2.7	SW846 8260B	mg/kg
Tetryl					CAS #: 479-45-8																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.65	2500	SW-846 8330A	mg/Kg
Toluene					CAS #: 108-88-3																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	46000	SW846 8260B	mg/kg
TPH (as Diesel)					CAS #: Q797																					
1/31/2011	-		-		-		-		-		-		-		-		-		-		-		10	11000	SW846 8015B	mg/kg
Trichloroethene					CAS #: 79-01-6																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	14	SW846 8260B	mg/kg
Vinyl chloride					CAS #: 75-01-4																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		0.005	1.7	SW846 8260B	mg/kg
Zinc					CAS #: 7440-66-6																					
1/31/2011	-		-		-		-		-		-		-		-		U		U		U		2500	310000	SW846 6010B	mg/kg

Definitions: RL Denotes permit reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above RL. AL Denotes permit Action limit.
J Denotes analyte reported at or above RL and associated result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the RL and estimated due to data validation.
A Denotes sample required dilution and laboratory QL and laboratory detection limit adjusted accordingly. Lab QL and laboratory detection limit above permit Action limit.
R Denotes result rejected. (-) Denotes not sampled. **Action limit and RL** obtained from permit modification – Table 1 Attachment II.C-24, updated December 18, 2008, Class 1 permit modification.

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the permit RL and action limit unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and action limit unless noted.

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	1100	8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	2.2	8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.25	27000	8330A	mg/Kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
4/5/2012	U		U		U		0.16	J	U		U		U		U		-		-		-		0.25	62	8330A	mg/Kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
4/5/2012	0.075	J	0.15	J	0.84	J	0.63	J	0.06	J	0.051	J	1.4	J	0.23	J	0.22	J	U	J	U	J	0.25	79	8330A	mg/Kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	1800	8270C	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
4/5/2012	0.094	J	U	J	0.078	J	2.9	J	0.077	J	U	J	0.83	J	0.084	J	0.072	J	U	J	U	J	0.25	5.5	8330A	mg/Kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
4/5/2012	U		U		0.1	J	U		U		U		U		U		-		-		-		0.25	620	8330A	mg/Kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
4/5/2012	U		0.096	J	0.13	J	U		U		U		0.17	J	U		U		U		U		0.25	2000	8330A	mg/Kg
2-Chlorophenol					*CAS #: 95-57-8*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	5100	8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
4/5/2012	U		U		U		0.059	J	U		U		U		U		-		-		-		0.25	13	8330A	mg/Kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
4/5/2012	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	-		-		-		1.6	0.16	8270C	mg/kg
3-Methylphenol					*CAS #: 106-44-5*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	3100	8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330A	mg/Kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
4/5/2012	U		0.12	J	0.073	J	U		U		U		0.22		0.23	J	U		U		U		0.25	1900	8330A	mg/Kg
4-Methylphenol					*CAS #: 106-44-5*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	3100	8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		1.6	7	8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
4/5/2012	U		U		U		0.096	J	U		U		U		U		-		-		-		0.25	110	8330A	mg/Kg

See last page of this report for definitions.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
Acetophenone					*CAS #: 98-86-2*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	100000	8270C	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
4/5/2012	1.6		1.6		1.7		2.5		1.9		2		1.7		2.9		2		3.3		3.5		1	15.8	6010B	mg/Kg
Barium					*CAS #: 7440-39-3*																					
4/5/2012	94		86		73		390		310		85		95		120		120		110		190		20	190000	6010B	mg/Kg
Benzene					*CAS #: 71-43-2*																					
4/5/2012	0.001	J	0.001	J	0.001	J	0.0009	J	0.001	J	0.004	J	0.0007	J	0.0006	J	-		-		-		0.005	5.4	8260B	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
4/5/2012	0.008	J	0.004	J	0.02	J	U		U		U		0.009	J	0.046		-		-		-		0.33	2.1	8270C	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
4/5/2012	0.008	J	U		0.022		0.009	J	U		U		0.008	J	0.04		-		-		-		0.02	0.21	8270C	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
4/5/2012	0.012	J	0.008	J	0.029	J	0.014	J	0.006	J	U		0.013	J	0.13	J	-		-		-		0.33	2.1	8270C	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
4/5/2012	0.011	J	0.005	J	0.014	J	U	J	U		U		U		0.035	J	-		-		-		0.33	2.1	8270C	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	4.9	8260B	mg/kg
Bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
4/5/2012	U		0.49		U		0.21		U		U		U		0.089	J	0.15	J	U		U		0.33	120	8270C	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
4/5/2012	U		0.004	J	U		U		U		0.003	J	U		0.002	J	U		U	J	U		0.005	32	8260B	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	910	8270C	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
4/5/2012	0.15	J	0.19	J	0.47		0.33		0.1	J	0.37		0.13	J	0.12	J	0.34		0.25		0.15	J	0.5	800	6010B	mg/Kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	3	8260B	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	1400	8260B	mg/kg
Chloroform					*CAS #: 67-66-3*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	1.5	8260B	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
4/5/2012	U		0.013		U		0.007		U		0.007		U		0.009		-		-		-		0.005	500	8260B	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
4/5/2012	U		0.58	J	U		U		U		1.7	J	U		0.41	J	-		-		-		1	5.6	7196A	mg/Kg

See last page of this report for definitions.

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
4/5/2012	18	J	13	J	12	J	16	J	14	J	19	J	15	J	17	J	19	J	20	J	35	J	1	1400	6010B	mg/Kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
4/5/2012	0.013	J	0.006	J	U		U	J	U		U		U		U		-		-		-		0.02	0.21	8270C	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
4/5/2012	U		0.16	J	0.2		0.4		U		10		0.58		0.19	J	0.72		0.14	J	U		0.33	490000	8270C	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
4/5/2012	U		U		U		0.26		U		U		U		0.081	J	U		U		U		0.33	1000000	8270C	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
4/5/2012	0.13	J	0.095	J	0.086	J	1.3		0.31		12		0.23	J	0.25		4.8		U		U		0.33	62000	8270C	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
4/5/2012	0.004	J	0.005	J	0.049		0.007	J	U		U		0.026		0.12		-		-		-		0.33	22000	8270C	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.33	120	8270C	mg/kg
HMX					*CAS #: 2691-41-0*																					
4/5/2012	U	J	U	J	U	J	0.62	J	U		U	J	U	J	U	J	U	J	U	J	U	J	2.2	49000	8330A	mg/Kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
4/5/2012	0.009	J	0.005	J	0.009	J	U	J	0.004	J	U		U		0.038	J	-		-		-		0.33	2.1	8270C	mg/kg
Lead					*CAS #: 7439-92-1*																					
4/5/2012	120		160		240		410		81		510		560	J	270		180		94		54		0.3	800	6010B	mg/Kg
Mercury					*CAS #: 7439-97-6*																					
4/5/2012	U		U		0.031	J	0.016	J	0.029	J	0.086	J	0.12		0.063	J	-		-		-		0.1	34	7471A	mg/Kg
Methylene Chloride					*CAS #: 75-09-2*																					
4/5/2012	U		0.012		U		U		U		U		U		U		-		-		-		0.005	53	8260B	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
4/5/2012	0.004	J	U		0.027		0.018	J	0.005	J	U		0.007	J	U		-		-		-		0.33	18	8270C	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.25	24	8330A	mg/Kg
Nitroglycerin					*CAS #: 55-63-0*																					
4/5/2012	1.3		0.12	J	1.2		15		13		1.1		8.1	J	0.57		2.4		U		0.05	J	2.5	62	8332	mg/Kg
Diphenylamine					*CAS #: 122-39-4*																					
4/5/2012	U	J	0.067	J	U	J	0.13	J	0.11	J	1.5	J	0.12	J	U	J	0.46	J	U	J	U	J	1.6	15000	8270C	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
4/5/2012	U		U		0.0106	J	0.0016	J	0.0012	J	0.0481	J	0.0164	J	0.0056	J	-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
4/5/2012	U		U		U		U		U		U		U		0.02	J	-		-		-		0.33	180000	8270C	mg/kg

See last page of this report for definitions.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
4/5/2012	U		U		U		1.2		U		U		0.091	J	U		-		-		-		1	24	8330A	mg/Kg
Selenium					*CAS #: 7782-49-2*																					
4/5/2012	U		U		U		U		U		U		U		U		U		0.68		1.2		0.5	5100	6010B	mg/Kg
Silver					*CAS #: 7440-22-4*																					
4/5/2012	U		U		U		U		U		U		U		0.33	J	-		-		-		1	5100	6010B	mg/Kg
Tetrachloroethene					*CAS #: 127-18-4*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	2.6	8260B	mg/kg
Tetryl					*CAS #: 479-45-8*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.65	2500	8330A	mg/Kg
Toluene					*CAS #: 108-88-3*																					
4/5/2012	U		U		U		U		U		0.002	J	U		U		-		-		-		0.005	45000	8260B	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
4/5/2012	U		-		-		53		-		-		20		-		-		-		-		10	11000	8015B	mg/Kg
Trichloroethene					*CAS #: 79-01-6*																					
4/5/2012	0.001	J	U		U		U		U		U		U		U		U		U		U		0.005	14	8260B	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.005	1.7	8260B	mg/kg

Definitions: RL Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. However, RLs, QLs and method detection limit (DL) are less than the AL except where noted with an "A" qualifier. See data validation for actual laboratory QL. **Q** Denotes data validation qualifie
U Denotes analyte not detected at or above DL. **AL** Denotes permit Action limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification).
J Denotes is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled.
NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	1100	8260B	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	2.2	8260B	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	27000	8330A	mg/Kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330A	mg/Kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
4/5/2012	-		-		-		-		-		-		-		-		0.097	J	U	J	0.26	J	0.25	79	8330A	mg/Kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	1800	8270C	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
4/5/2012	-		-		-		-		-		-		-		-		0.071	J	U	J	0.14	J	0.25	5.5	8330A	mg/Kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	620	8330A	mg/Kg
2-Amino-4,6-dinitrotoluene					*CAS #: 35572-78-2*																					
4/5/2012	-		-		-		-		-		-		-		-		U		U		0.15	J	0.25	2000	8330A	mg/Kg
2-Chlorophenol					*CAS #: 95-57-8*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	5100	8270C	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	13	8330A	mg/Kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		1.6	0.16	8270C	mg/kg
3-Methylphenol					*CAS #: 106-44-5*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	3100	8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330A	mg/Kg
4-Amino-2,6-dinitrotoluene					*CAS #: 19406-51-0*																					
4/5/2012	-		-		-		-		-		-		-		-		U		U		0.18	J	0.25	1900	8330A	mg/Kg
4-Methylphenol					*CAS #: 106-44-5*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	3100	8270C	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		1.6	7	8270C	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	110	8330A	mg/Kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	100000	8270C	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
4/5/2012	-		-		-		-		-		-		-		-		2.4		1.6		2.1		1	15.8	6010B	mg/Kg
Barium					*CAS #: 7440-39-3*																					
4/5/2012	-		-		-		-		-		-		-		-		150		100		100		20	190000	6010B	mg/Kg
Benzene					*CAS #: 71-43-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	5.4	8260B	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270C	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270C	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270C	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270C	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	4.9	8260B	mg/kg
Bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
4/5/2012	-		-		-		-		-		-		-		-		1.1		0.092	J	0.25		0.33	120	8270C	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
4/5/2012	-		-		-		-		-		-		-		-		U		0.004	J	U		0.005	32	8260B	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	910	8270C	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
4/5/2012	-		-		-		-		-		-		-		-		0.38		0.18	J	0.27		0.5	800	6010B	mg/Kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	3	8260B	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	1400	8260B	mg/kg
Chloroform					*CAS #: 67-66-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	1.5	8260B	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	500	8260B	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
4/5/2012	1.1		0.57	J	0.63	J	1		0.71	J	0.7	J	0.89	J	1.9		-		-		-		1	5.6	7196A	mg/Kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
4/5/2012	-		-		-		-		-		-		-		-		18	J	12	J	17	J	1	1400	6010B	mg/Kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270C	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
4/5/2012	-		-		-		-		-		-		-		-		0.7		0.46		0.48		0.33	490000	8270C	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
4/5/2012	-		-		-		-		-		-		-		-		0.15	J	0.31		U		0.33	1000000	8270C	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
4/5/2012	-		-		-		-		-		-		-		-		0.33		0.24		0.93		0.33	62000	8270C	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	22000	8270C	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	120	8270C	mg/kg
HMX					*CAS #: 2691-41-0*																					
4/5/2012	-		-		-		-		-		-		-		-		U	J	0.18	J	U	J	2.2	49000	8330A	mg/Kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270C	mg/kg
Lead					*CAS #: 7439-92-1*																					
4/5/2012	-		-		-		-		-		-		-		-		230		200		400		0.3	800	6010B	mg/Kg
Mercury					*CAS #: 7439-97-6*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.1	34	7471A	mg/Kg
Methylene Chloride					*CAS #: 75-09-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	53	8260B	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	18	8270C	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.25	24	8330A	mg/Kg
Nitroglycerin					*CAS #: 55-63-0*																					
4/5/2012	-		-		-		-		-		-		-		-		0.91		0.44		8.5		2.5	62	8332	mg/Kg
Diphenylamine					*CAS #: 122-39-4*																					
4/5/2012	-		-		-		-		-		-		-		-		0.094	J	U	J	0.095	J	1.6	15000	8270C	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
4/5/2012	U		U		U		U		U		U		U		U		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.33	180000	8270C	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		1	24	8330A	mg/Kg
Selenium					*CAS #: 7782-49-2*																					
4/5/2012	-		-		-		-		-		-		-		-		U		U		U		0.5	5100	6010B	mg/Kg
Silver					*CAS #: 7440-22-4*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		1	5100	6010B	mg/Kg
Tetrachloroethene					*CAS #: 127-18-4*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	2.6	8260B	mg/kg
Tetryl					*CAS #: 479-45-8*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.65	2500	8330A	mg/Kg
Toluene					*CAS #: 108-88-3*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	45000	8260B	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		10	11000	8015B	mg/Kg
Trichloroethene					*CAS #: 79-01-6*																					
4/5/2012	-		-		-		-		-		-		-		-		U		U		0.006		0.005	14	8260B	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
4/5/2012	-		-		-		-		-		-		-		-		-		-		-		0.005	1.7	8260B	mg/kg

Definitions: RL Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above DL. AL Denotes permit Action limit.
J Denotes result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Denotes laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled. **AL and RL** obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification.

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the RL and AL unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and AL unless noted.

Table 3A
Dioxin Results - Fourth Quarter 2005
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID			PAD-1			PAD-2			PAD-3			PAD-4	
Depth			0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		90	0.9		66	0.66		130	1.3		36	0.36
1,2,3,4,6,7,8-HpCDF	0.01	J	3.9	0.039	U	8.2	0.082	J	22	0.22		7.7	0.077
1,2,3,4,7,8,9-HpCDF	0.01		13	0.13	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	J	3.2	0.32	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	U		0		7.2	0.72	U		0
1,2,3,6,7,8-HxCDD	0.1		7.2	0.72	J	4.5	0.45	J	8.7	0.87	J	3.8	0.38
1,2,3,6,7,8-HxCDF	0.1	J	4.1	0.41	U		0	J	4.8	0.48	U		0
1,2,3,7,8,9-HxCDD	0.1	J	5.3	0.53	J	4	0.4	J	5.3	0.53	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		6	0.3	U		0	J	5.7	0.285	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	J	4.6	0.46	U		0
2,3,4,7,8-PeCDF	0.5	J	5.3	2.65	U		0		6.4	3.2	U		0
2,3,7,8-TCDD	1	J	1.1	1.1	U		0		1.5	1.5	U		0
2,3,7,8-TCDF	0.1		10	1		1.4	0.14		12	1.2	J	0.89	0.089
OCDD	0.001		610	0.61		910	0.91		1500	1.5		380	0.38
OCDF	0.001		20	0.02		21	0.021		20	0.02		15	0.015
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***8.409***			***2.663***			***12.605***			***1.301***

Sample Location ID			PAD-5			PAD-6			PAD-7			PAD-8	
Depth			0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		9.2	0.092	U	130	1.3	U	43	0.43		32	0.32
1,2,3,4,6,7,8-HpCDF	0.01	J	3.7	0.037		15	0.15	U	8.4	0.084	J	6.4	0.064
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	J	3.8	0.38	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1	U		0	J	5.9	0.59	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1	U		0	J	5.1	0.51	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0	J	1.1	1.1	U		0		2.6	2.6
2,3,7,8-TCDF	0.1	U		0		2.7	0.27	U	1.4	0.14	J	0.65	0.065
OCDD	0.001		71	0.071		1300	1.3	U	430	0.43		490	0.49
OCDF	0.001	J	7.8	0.0078	U	40	0.04	U	17	0.017		25	0.025
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***0.2078***			***5.64***			***1.101***			***3.564***

Table 3A
Dioxin Results - Fourth Quarter 2005
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID			POND-1			SB-1			SB-2	
Depth			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		33	0.33		43	0.43		68	0.68
1,2,3,4,6,7,8-HpCDF	0.01	J	4.1	0.041	J	4.4	0.044	U		0
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1	U		0	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1	U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0	U		0	U		0
2,3,7,8-TCDF	0.1	J	1.1	0.11	U		0	U		0
OCDD	0.001		460	0.46		1900	1.9		3600	3.6
OCDF	0.001	J	12	0.012	J	10	0.01	J	13	0.013
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***0.953***			***2.384***			***4.293***

Sample Location ID			BERM-1			NB-1			NB-2	
Depth			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		38	0.38		54	0.54		42	0.42
1,2,3,4,6,7,8-HpCDF	0.01	J	3.9	0.039		11	0.11	U	6.7	0.067
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1	J	3.8	0.38	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1	U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0	U		0	U		0
2,3,7,8-TCDF	0.1	J	0.86	0.086		3.5	0.35		1.9	0.19
OCDD	0.001		590	0.59		650	0.65		410	0.41
OCDF	0.001	J	11	0.011		22	0.022		16	0.016
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***1.486***			***1.672***			***1.103***

Table 3A
Dioxin Results - Fourth Quarter 2005
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID			PAD-2-Verification			PAD-2-Original	
Depth			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		66	0.66		430	4.3
1,2,3,4,6,7,8-HpCDF	0.01	U	8.2	0.082		82	0.82
1,2,3,4,7,8,9-HpCDF	0.01	U		0		8.1	0.081
1,2,3,4,7,8-HxCDD	0.1	U		0		7.7	0.77
1,2,3,4,7,8-HxCDF	0.1	U		0		14	1.4
1,2,3,6,7,8-HxCDD	0.1	J	4.5	0.45		23	2.3
1,2,3,6,7,8-HxCDF	0.1	U		0		12	1.2
1,2,3,7,8,9-HxCDD	0.1	J	4	0.4		22	2.2
1,2,3,7,8,9-HxCDF	0.1	U		0			0
1,2,3,7,8-PeCDD	0.5	U		0		6.5	3.25
1,2,3,7,8-PeCDF	0.05	U		0		7.6	0.38
2,3,4,6,7,8-HxCDF	0.1	U		0	U	10	1
2,3,4,7,8-PeCDF	0.5	U		0		8.3	4.15
2,3,7,8-TCDD	1	U		0		1.6	1.6
2,3,7,8-TCDF	0.1		1.4	0.14		8.1	0.81
OCDD	0.001		910	0.91		2900	2.9
OCDF	0.001		21	0.021		130	0.13
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***2.663***			***27.291***

Sample Location ID			PAD-7-Verification			PAD-7-Original	
Depth			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01	U	43	0.43		2700	27
1,2,3,4,6,7,8-HpCDF	0.01	U	8.4	0.084		750	7.5
1,2,3,4,7,8,9-HpCDF	0.01	U		0		29	0.29
1,2,3,4,7,8-HxCDD	0.1	U		0		25	2.5
1,2,3,4,7,8-HxCDF	0.1	U		0		16	1.6
1,2,3,6,7,8-HxCDD	0.1	U		0		82	8.2
1,2,3,6,7,8-HxCDF	0.1	U		0		19	1.9
1,2,3,7,8,9-HxCDD	0.1	U		0		42	4.2
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0		8.1	4.05
1,2,3,7,8-PeCDF	0.05	U		0		4.7	0.235
2,3,4,6,7,8-HxCDF	0.1	U		0		14	1.4
2,3,4,7,8-PeCDF	0.5	U		0		5.8	2.9
2,3,7,8-TCDD	1	U		0	J	0.89	0.89
2,3,7,8-TCDF	0.1	U	1.4	0.14		3.1	0.31
OCDD	0.001	U	430	0.43		22000	22
OCDF	0.001	U	17	0.017		2200	2.2
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***1.101***			***87.175***

Notes: Analytical Method: SW-846 8290
TEF Denotes Toxicity Equivalency Factor.
2,3,7,8 - TCDD Toxicity Equivalent (TEQ) ng/kg. Calculated by multiplication of detection by the respective TEF
U denotes not detected.
J Denotes result reported below LOQ/Quantitation Limit.

Table 3B
Dioxin Results - Second Quarter 2006
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID			PAD-1			PAD-2			PAD-3			PAD-4	
Depth			0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		55	0.55		58	0.58		34	0.34		6.3	0.063
1,2,3,4,6,7,8-HpCDF	0.01		7.6	0.076		8.1	0.081	J	5.3	0.053		9.5	0.095
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	J	2.9	0.29	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1	J	4.4	0.44	J	3.5	0.35	U		0	J	3.7	0.37
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1	J	3.6	0.36	J	3	0.3	U		0	J	3.2	0.32
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	J	3.1	1.55	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0	U		0	U		0	U		0
2,3,7,8-TCDF	0.1		4	0.4		2	0.2	JA	1	0.1		2	0.2
OCDD	0.001		300	0.3		610	0.61		480	0.48		610	0.61
OCDF	0.001	J	7.7	0.0077		16	0.016	J	11	0.011		21	0.021
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***3.9737***			***2.137***			***0.984***			***1.679***

Sample Location ID			PAD-5			PAD-6			PAD-7			PAD-8	
Depth			0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		25	0.25		120	1.2		28	0.28		44	0.44
1,2,3,4,6,7,8-HpCDF	0.01		6.1	0.061		15	0.15	J	5.3	0.053		9.3	0.093
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1	U		0		6	0.6	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1	U		0	J	5.1	0.51	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0		0.55	0.55	U		0		1.5	1.5
2,3,7,8-TCDF	0.1	U		0		2.7	0.27		1.6	0.16		1.1	0.11
OCDD	0.001		210	0.21		1000	1		310	0.31		630	0.63
OCDF	0.001		15	0.015		41	0.041	J	10	0.01		28	0.028
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***0.536***			***4.321***			***0.813***			***2.801***

Table 3B
Dioxin Results - Second Quarter 2006
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID			POND-1			SB-1			SB-2			PAD-X	
Depth			0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		31	0.31		41	0.41		30	0.3		28	0.28
1,2,3,4,6,7,8-HpCDF	0.01	J	4.3	0.043	J	4.4	0.044	J	4.8	0.048	J	5.1	0.051
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1	U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0	U		0	U		0	U		0
2,3,7,8-TCDF	0.1	J	0.68	0.068	U		0	U		0		1.5	0.15
OCDD	0.001		630	0.63		1900	1.9		1200	1.2		310	0.31
OCDF	0.001		12	0.012	J	11	0.011		14	0.014	J	9.7	0.0097
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***1.063***			***2.365***			***1.562***			***0.8007***

Sample Location ID			BERM-1			NB-1			NB-2	
Depth			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		98	0.98		57	0.57		38	0.38
1,2,3,4,6,7,8-HpCDF	0.01		10	0.1		12	0.12		7.5	0.075
1,2,3,4,7,8,9-HpCDF	0.01	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1		15	1.5	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1		8.7	0.87	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5	U		0	U		0	U		0
2,3,7,8-TCDD	1	U		0	U		0	U		0
2,3,7,8-TCDF	0.1		1.8	0.18		2.8	0.28		2.1	0.21
OCDD	0.001		880	0.88		700	0.7		380	0.38
OCDF	0.001		26	0.026		27	0.027		19	0.019
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg				***4.536***			***1.697***			***1.064***

Notes: Analytical Method: SW-846 8290 -Severn Trent Analytical, North Canton, OH
TEF Denotes Toxicity Equivalency Factor.
2,3,7,8 - TCDD Toxicity Equivalent (TEQ) ng/kg. Calculated by multiplication of detection by the respective TEF
U denotes not detected.
J Denotes result reported below LOQ/Quantitation Limit.
JA Denotes result positively identified, but quantitation is estimated.

Table 3A
Dioxin Results - January 2007
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID				**PAD-1**			**PAD-2**			**PAD-3**			**PAD-4**	
Depth				**0-6 inches**			**0-6 inches**			**0-6 inches**			**0-6 inches**	
Constituent	**TEF**	**LOQ**	**FLAG**	**Result**	**TEQ**	**FLAG**	**Result**	**TEQ**	**FLAG**	**Result**	**TEQ**	**FLAG**	**Result**	**TEQ**
1,2,3,4,6,7,8-HpCDD	0.01			36	0.36		26	0.26		27	0.27		34	0.34
1,2,3,4,6,7,8-HpCDF	0.01			5.4	0.054	J	3.5	0.035	J	6.3	0.063		6	0.06
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1		J	3.6	0.36	U		0	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1		J	2.6	0.26	U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		J	2.7	1.35	U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	U		0	U		0	U		0
2,3,7,8-TCDF	0.1			3	0.3	J	0.86	0.086	J	0.91	0.091	J	0.84	0.084
OCDD	0.001			240	0.24		320	0.32		370	0.37		380	0.38
OCDF	0.001		J	9.4	0.0094	J	7.4	0.0074		13	0.013		13	0.013
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***2.9334***			***0.7084***			***0.807***			***0.877***

Sample Location ID				**PAD-5**			**PAD-6**			**PAD-7**			**PAD-8**	
Depth				**0-6 inches**			**0-6 inches**			**0-6 inches**			**0-6 inches**	
Constituent	**TEF**	**LOQ**	**FLAG**	**Result**	**TEQ**	**FLAG**	**Result**	**TEQ**	**FLAG**	**Result**	**TEQ**	**FLAG**	**Result**	**TEQ**
1,2,3,4,6,7,8-HpCDD	0.01			8.8	0.088		120	1.2		36	0.36		33	0.33
1,2,3,4,6,7,8-HpCDF	0.01		J	3.1	0.031		14	0.14	J	7.3	0.073		7.2	0.072
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1		U		0	J	5.1	0.51	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1		U		0		5.8	0.58	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	U		0	U		0		1.7	1.7
2,3,7,8-TCDF	0.1		U		0		1.9	0.19	J	1.1	0.11		1.4	0.14
OCDD	0.001			88	0.088		1200	1.2		380	0.38		370	0.37
OCDF	0.001		U		0		37	0.037		14	0.014		22	0.022
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***0.207***			***3.857***			***0.937***			***2.634***

Table 3A
Dioxin Results - January 2007
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID				POND-1			SB-1			SB-2			PAD-X	
Depth				0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	LOQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			56	0.56		90	0.9		78	0.78		35	0.35
1,2,3,4,6,7,8-HpCDF	0.01			8.3	0.083		8	0.08		13	0.13		6.5	0.065
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	U		0	U		0	U		0
2,3,7,8-TCDF	0.1		J	1.2	0.12	U		0	J	1.3	0.13		1.2	0.12
OCDD	0.001			1200	1.2		3900	3.9		3100	3.1		410	0.41
OCDF	0.001			26	0.026		30	0.03		22	0.022		13	0.013
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***1.989***			***4.91***			***4.162***			***0.958***

Sample Location ID				BERM-1			NB-1			NB-2	
Depth				0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	LOQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			150	1.5		33	0.33		18	0.18
1,2,3,4,6,7,8-HpCDF	0.01			14	0.14		6.7	0.067	U		0
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1			29	2.9	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1			20	2	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	U		0	U		0
2,3,7,8-TCDF	0.1			3.2	0.32		2	0.2	J	0.77	0.077
OCDD	0.001			1000	1		420	0.42		290	0.29
OCDF	0.001			34	0.034		14	0.014	J	6.5	0.0065
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***7.894***			***1.031***			***0.5535***

Notes: Analytical Method: SW-846 8290 -Severn Trent Analytical, North Canton, OH
TEF Denotes Toxicity Equivalency Factor. (See SW-846 Method 8290 Table 10)
2,3,7,8 - TCDD Toxicity Equivalent (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF
LOQ/QL-Limit of Quantitation. See analytical results for sample specific LOQ/QL.
U denotes not detected.
J Denotes result reported below LOQ/Quantitation Limit.
JA Denotes result positively identified, but quantitation is estimated.

Table 3B
Dioxin Results - June 2007
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID				PAD-1			PAD-2			PAD-3			PAD-4	
Depth				0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	LOQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			53	0.53		190	1.9		55	0.55	U	64	0.64
1,2,3,4,6,7,8-HpCDF	0.01			14	0.14		23	0.23		11	0.11		13	0.13
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U	9.8	0.98	J	3.9	0.39	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1			6.3	0.63	U	10	1	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		J	4.3	0.43	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1			5.9	0.59	U	8.2	0.82	U		0	J	3.3	0.33
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		J	4.1	0.205	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		J	3.8	0.38	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		J	5	2.5	U		0	U		0	U		0
2,3,7,8-TCDD	1		J	0.69	0.69	U		0	U		0	U		0
2,3,7,8-TCDF	0.1			6.4	0.64		3.7	0.37		1.5	0.15		2.8	0.28
OCDD	0.001			340	0.34		1600	1.6		490	0.49		760	0.76
OCDF	0.001			13	0.013		42	0.042		40	0.04		29	0.029
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***8.068***			***6.352***			***1.34***			***2.169***

Sample Location ID				PAD-5			PAD-6			PAD-7			PAD-8	
Depth				0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	LOQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			14	0.14		100	1		34	0.34		9.5	0.095
1,2,3,4,6,7,8-HpCDF	0.01		J	5	0.05		13	0.13		7.9	0.079	U		0
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1		U		0	J	3.9	0.39	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1		U		0	J	4.8	0.48	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	J	0.63	0.63	U		0	U		0
2,3,7,8-TCDF	0.1			1.2	0.12		2.2	0.22		1.6	0.16	U		0
OCDD	0.001			130	0.13		1200	1.2		440	0.44		180	0.18
OCDF	0.001		U		0		33	0.033	J	11	0.011	J	5.4	0.0054
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***0.44***			***4.083***			***1.03***			***0.2804***

Sample Location ID				POND-1			SB-1			SB-2			PAD-X	
Depth				0-6 inches			0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	LOQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			170	1.7		52	0.52		28	0.28		40	0.4
1,2,3,4,6,7,8-HpCDF	0.01			23	0.23		8	0.08	J	4.8	0.048		7.1	0.071
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		J	4.1	0.41	U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1			8.6	0.86	U		0	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1			6.8	0.68	U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	U		0	U		0	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		U		0	U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	U		0	U		0	U		0
2,3,7,8-TCDF	0.1			3.8	0.38		1.5	0.15	U		0		1.5	0.15
OCDD	0.001			3000	3		1600	1.6		980	0.98		600	0.6
OCDF	0.001			61	0.061		23	0.023	J	9.3	0.0093		13	0.013
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***7.321***			***2.373***			***1.3173***			***1.234***

Sample Location ID				BERM-1			NB-1			NB-2	
Depth				0-6 inches			0-6 inches			0-6 inches	
Constituent	TEF	LOQ	FLAG	Result	TEQ	FLAG	Result	TEQ	FLAG	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			54	0.54		49	0.49		24	0.24
1,2,3,4,6,7,8-HpCDF	0.01			7.2	0.072		11	0.11	J	4.9	0.049
1,2,3,4,7,8,9-HpCDF	0.01		U		0	U		0	U		0
1,2,3,4,7,8-HxCDD	0.1		U		0	U		0	U		0
1,2,3,4,7,8-HxCDF	0.1		U		0	U		0	U		0
1,2,3,6,7,8-HxCDD	0.1		J	3.4	0.34	U		0	U		0
1,2,3,6,7,8-HxCDF	0.1		U		0	U		0	U		0
1,2,3,7,8,9-HxCDD	0.1		U		0	U		0	U		0
1,2,3,7,8,9-HxCDF	0.1		U		0	U		0	U		0
1,2,3,7,8-PeCDD	0.5		U		0	U		0	U		0
1,2,3,7,8-PeCDF	0.05		U		0	J	3.3	0.165	U		0
2,3,4,6,7,8-HxCDF	0.1		U		0	U		0	U		0
2,3,4,7,8-PeCDF	0.5		U		0	U		0	U		0
2,3,7,8-TCDD	1		U		0	U		0	U		0
2,3,7,8-TCDF	0.1			1.2	0.12		3.1	0.31	JA	1.3	0.13
OCDD	0.001			700	0.7		580	0.58		290	0.29
OCDF	0.001			17	0.017		23	0.023		11	0.011
2,3,7,8 Toxicity Equivalent (TEQ) ng/kg					***1.789***			***1.678***			***0.72***

Notes: Analytical Method: SW-846 8290 -Severn Trent Analytical, North Canton, OH

TEF Denotes Toxicity Equivalency Factor. (See SW-846 Method 8290 Table 10)

2,3,7,8 - TCDD Toxicity Equivalent (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF

LOQ/QL-Limit of Quantitation. See analytical results for sample specific LOQ/QL.

U denotes not detected.

J Denotes result reported below LOQ/Quantitation Limit.

JA Denotes result positively identified, but quantitation is estimated.

Table 4A
Method 8290 Dioxin/Furan Results - January 2008 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result		Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			23	0.23			22	0.22			20	0.2			20	0.2
1,2,3,4,6,7,8-HpCDF	0.01			6.3	0.063		U	ND			U	ND		J	U	4	
1,2,3,4,7,8,9-HpCDF	0.01	J	U	1.0			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1	JQ	U	1.4			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1	J	U	4.5			U	ND			U	ND		J	U	4.2	
1,2,3,6,7,8-HxCDD	0.1	JQ	U	4.2			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1	J	U	3.9			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	JQ	U	3.3			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1	JQ	U	1.3			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03	J	U	3.9			U	ND			U	ND		J	U	4.3	
2,3,4,6,7,8-HxCDF	0.1	J	U	2.1			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3	J	U	4.9			U	ND			U	ND		J	U	4.8	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1			7	0.7		U	ND			U	ND				6.5	0.65
OCDD	0.0003			120	0.036			650	0.195			490	0.147			210	0.063
OCDF	0.0003	J	U	5.1			U	ND			U	ND		J	U	6.6	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***1.029***				***0.415***				***0.347***				***0.913***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			18	0.18		J	33	0.33			80	0.8			89	0.89
1,2,3,4,6,7,8-HpCDF	0.01		U	ND		J	J	4.7				16	0.16			19	0.19
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			J	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			J	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			J	ND		J	J	4.7			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			J	ND		J	J	4.1		JA	JA	5.4	
1,2,3,6,7,8-HxCDF	0.1		U	ND			J	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			J	ND		J	J	3.6		J	J	4.5	
1,2,3,7,8,9-HxCDF	0.1		U	ND			J	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			J	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			J	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			J	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			J	ND		J	J	3.4			U	ND	
2,3,7,8-TCDD	1		U	ND			J	ND			U	ND		JA	JA	1.3	
2,3,7,8-TCDF	0.1	J	U	0.64		J	J	1.3				2.8	0.28			2.6	0.26
OCDD	0.0003			140	0.042		J	320	0.096			710	0.213			1100	0.33
OCDF	0.0003		U	ND		J	J	11				26	0.0078			75	0.0225
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.222***		J		***0.6063***				***1.4608***				***1.6925***

Sample Location ID		POND-1				SB-1				SB-2				PAD-X			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			11	0.11			43	0.43			50	0.5			71	0.71
1,2,3,4,6,7,8-HpCDF	0.01	ND	U	ND				7.8	0.078	JA	JA	6				17	0.17
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND				5.9	0.59
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND		J	J	3.9	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND		J	J	4.3	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND		J	J	4.6	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND		J	J	4.2	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND		J	J	3	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND				6.4	1.92
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		U	ND				0.73	0.073		U	ND				4.4	0.44
OCDD	0.0003			630	0.189			1900	0.57			2200	0.66			680	0.204
OCDF	0.0003		U	ND		J	J	9.7				26	0.0078			31	0.0093
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.299***				***1.151***				***1.1678***				***4.0433***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			31	0.31			33	0.33			9.1	0.091
1,2,3,4,6,7,8-HpCDF	0.01	JA	JA	4.2				7.5	0.075		U	ND	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	JA	JA	0.9				2.1	0.21	JA	JA	0.65	
OCDD	0.0003			440	0.132			500	0.15			180	0.054
OCDF	0.0003	J	J	11				16	0.0048		U	ND	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.442***				***0.7698***				***0.145***

Notes: Analytical Method: SW-846 8290 -Test America West Sacramento, unless noted.

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm). TEF factors based on noted reference reflect current research.

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF

LOQ/QL-Limit of Quantitation/sample specific reporting limit. See analytical results for sample specific reporting limit.

Data Qualifiers:

U denotes not detected. See certificate of analysis for sample specific estimated detection limit.

J Denotes result reported below LOQ/Quantitation Limit.

JA Denotes result positively identified, but quantitation is estimated.

JQ (laboratory data qualifier) Denotes result estimated maximum possible concentration reported

ND (Laboraory data qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

Verification event performed on 3/25/2008 for PAD-1 (DUP-1). Verification results reported (Test America Knoxville).

PAD-X is a blind duplicate for PAD-7. " Val Flag" denotes data validation data qualifier. "Lab Flag" denotes Laboratory data qualifier.

Table 4B
Method 8290 Dioxin/Furan Results - November 2008 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >19 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	38	0.38		J	93	0.93		J	17	0.17		J	62	0.62
1,2,3,4,6,7,8-HpCDF	0.01			6.9	0.069			14	0.14		U	ND				13	0.13
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1	J	U	5.6		J	U	3.4			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1	J	U	5.1				6.2	0.62		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1	J	U	3.3			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	5.3				6	0.6		U	ND		J	U	2.9	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03	J	U	3.8			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3	J	U	4.9			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		7.1	0.71	CON		2.2	0.22	CON		1.1	0.11	CON		1.6	0.16
OCDD	0.0003	H	J	300	0.09	H	J	1000	0.3	H	J	260	0.078	H	J	980	0.294
OCDF	0.0003	HJ		8.3		H		30	0.009	H		ND		H		24	0.007
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg			J		***1.249***		J		***2.819***		J		***0.358***		J		***1.2112***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	18	0.18		J	100	1		J	26	0.26		J	46	0.46
1,2,3,4,6,7,8-HpCDF	0.01	J	U	5.1				14	0.14	J	U	5.3				8.6	0.086
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND		J	U	3			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND		J	U	4.9			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND				5.9	0.59		U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND				1.5	1.5
2,3,7,8-TCDF	0.1	J CON	U	0.75		CON		2.4	0.24	CON		1.4	0.14	CON		2.5	0.25
OCDD	0.0003	H	J	150	0.045		J	960	0.288		J	260	0.078		J	560	0.168
OCDF	0.0003	HJ	U	7.8				31	0.0093	J	U	8.2				24	0.0072
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg			J		***0.225***		J		***2.2673***		J		***0.478***		J		***2.4712***

Sample Location ID		POND-1				SB-1				SB-2				PAD-X			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	230	2.3		J	33	0.33		J	11	0.11		J	27	0.27
1,2,3,4,6,7,8-HpCDF	0.01			38	0.38		U	ND			U	ND			U	4.9	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1	J	U	4.5			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1	JA	U	3			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1			14	1.4		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1	J	U	3.3			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1			10	1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1	J	U	3.1			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3	J	U	3.8			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1	J	U	0.98			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		5.7	0.57		U	ND			U	ND		CON		1.2	0.12
OCDD	0.0003		J	2600	0.78		J	1700	0.51		J	770	0.231		J	290	0.087
OCDF	0.0003		J	94	0.0282	J	J	7.7			UJ	ND			U	7.5	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg			J		***6.4582***		J		***0.84***		J		***0.341***		J		***0.477***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	72	0.72		J	58	0.58		J	34	0.34
1,2,3,4,6,7,8-HpCDF	0.01			11	0.11			14	0.14			6.7	0.067
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1	J	U	5.2			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND		J	U	3			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	3.1			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		2.1	0.21	CON		3.8	0.38	CON		2.2	0.22
OCDD	0.0003		J	820	0.246		J	640	0.192		J	350	0.105
OCDF	0.0003		J	28	0.0084		J	30	0.009		J	16	0.0048
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg			J		***1.2944***		J		***1.301***		J		***0.7368***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted.

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm). TEF factors based on noted reference reflect current research.

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF

LOQ/QL-Limit of Quantitation/sample specific reporting limit. See analytical results for sample specific reporting limit.

Data Qualifiers:

U denotes not detected. See certificate of analysis for sample specific estimated detection limit.

J Denotes result reported below LOQ/Quantitation Limit.

JA Denotes result positively identified, but quantitation is estimated.

JQ (laboratory data qualifier) Denotes result estimated maximum possible concentration reported.

ND (Laboratory data qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis.

PAD-X is a blind duplicate for PAD-7.

"Val Flag" denotes data validation data qualifier. "Lab Flag" denotes Laboratory data qualifier.

Table 3A
Method 8290 Dioxin/Furan Results - January 2009 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			270	2.7			67	0.67	J	U	5.2				69	0.69
1,2,3,4,6,7,8-HpCDF	0.01			40	0.4			6.3	0.063		U	ND				12	0.12
1,2,3,4,7,8,9-HpCDF	0.01	J	U	3.1			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1	J	U	5			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1			11	1.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1			21	2.1		U	ND			U	ND		J	U	3.1	
1,2,3,6,7,8-HxCDF	0.1	J	U	5.6			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1			21	2.1	J	U	3			U	ND		J	U	3.3	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1	J	U	5.8			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03	J	U	5.5			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1	J	U	4.8			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3			7.8	2.34		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1			1.5	1.5		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		6.2	0.62	CON		1.5	0.15		U	ND		JA CON	U	1.5	
OCDD	0.0003		J	1600	0.48		J	580	0.174		J	160	0.048		J	620	0.186
OCDF	0.0003			140	0.042			15	0.0045		U	ND				23	0.007
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***13.382***				***1.0615***				***0.048***				***1.0029***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			16	0.16			100	1			58	0.58			71	0.71
1,2,3,4,6,7,8-HpCDF	0.01	J	U	3.5				13	0.13			7.8	0.078			12	0.12
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND		J	U	3.4			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND		J	U	4.6		J	U	2.9			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND		J	U	5.7		J	U	3.4			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND				1.7	1.7
2,3,7,8-TCDF	0.1	J CON	U	0.9		CON		2.5	0.25	CON		1.5	0.15	CON		2.3	0.23
OCDD	0.0003		J	130	0.039		J	980	0.294		J	420	0.126		J	940	0.282
OCDF	0.0003		U	ND				35	0.0105			15	0.0045			43	0.0129
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.199***				***1.6845***				***0.9385***				***3.0549***

Table 3A

Sample Location ID		POND-1				SB-1				SB-2				PAD-X			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			99	0.99			81	0.81			35	0.35			34	0.34
1,2,3,4,6,7,8-HpCDF	0.01			14	0.14			15	0.15		U	ND				6	0.06
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1	J	U	3.5			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	7.2	0.72		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	6.1			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		2.3	0.23	J CON	U	1			U	ND		JA CON	U J	1.3	
OCDD	0.0003		J	1100	0.33		J	2200	0.66		J	2200	0.66		J	330	0.099
OCDF	0.0003			38	0.0114			29	0.0087		U	ND				14	0.0042
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***2.4214***				***1.6287***				***1.01***				***0.5032***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			150	1.5			83	0.83			34	0.34
1,2,3,4,6,7,8-HpCDF	0.01			22	0.22			17	0.17			6.3	0.063
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1	J	U	5.3			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1			12	1.2		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1			11	1.1		U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3	J	U	3			U	ND			U	ND	
2,3,7,8-TCDD	1	J	U	0.63			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		3.3	0.33	CON		2.6	0.26	CON		2.2	0.22
OCDD	0.0003		J	1400	0.42		J	900	0.27		J	270	0.081
OCDF	0.0003			62	0.0186			110	0.033			17	0.0051
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***4.7886***				***1.563***				***0.7091***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted.

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.

QL/RL-Limit of Quantitation/sample specific reporting limit. See analytical results for sample specific reporting limit.

CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the RL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3B
Method 8290 Dioxin/Furan Results - December 2009 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	48	0.48		J	45	0.45		J	120	1.2		J	74	0.74
1,2,3,4,6,7,8-HpCDF	0.01			13	0.13			8	0.08			12	0.12			7.8	0.078
1,2,3,4,7,8,9-HpCDF	0.01		UJ	ND			UJ	ND			UJ	ND			UJ	ND	
1,2,3,4,7,8-HxCDD	0.1		UJ	ND			UJ	ND			UJ	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1			8.4	0.84		U	ND		J	U	3.5			U	ND	
1,2,3,6,7,8-HxCDD	0.1	J	U	3.9			U	ND				6.3	0.63	J	U	3.4	
1,2,3,6,7,8-HxCDF	0.1			6.3	0.63		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	3.4			U	ND		J	U	5.1		J	U	3.2	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND		J	U	3.5			U	ND	
1,2,3,7,8-PeCDF	0.03		J	7.1	0.213		UJ	ND		J	UJ	3.4			UJ	ND	
2,3,4,6,7,8-HxCDF	0.1	QJ	U	3.8			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3			8.9	2.67		U	ND		J	U	3.7			U	ND	
2,3,7,8-TCDD	1	J		1			U	ND		J	U	1			U	ND	
2,3,7,8-TCDF	0.1	CON	J	11	1.1	CON	J	2.3	0.23	CON	J	6.4	0.64	CON	J	1.6	0.16
OCDD	0.0003			310	0.093			560	0.168			590	0.177			700	0.21
OCDF	0.0003			13	0.0039			14	0.0042			22	0.0066			19	0.006
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***6.1599***				***0.9322***				***2.7736***				***1.1937***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	16	0.16		J	210	2.1		J	38	0.38		J	54	0.54
1,2,3,4,6,7,8-HpCDF	0.01	J	U	4.6				29	0.29			11	0.11			14	0.14
1,2,3,4,7,8,9-HpCDF	0.01		UJ	ND		J	UJ	2.8			UJ	ND			UJ	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND		J	U	4.8		J	U	3.6			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND				9.4	0.94		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND		J	U	3.9			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND				7.7	0.77		U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND		J	U	3			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		UJ	ND		J	UJ	2.9			UJ	ND			UJ	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND		J	U	3.4			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND		J	U	0.72			U	ND				1.6	1.6
2,3,7,8-TCDF	0.1	CON	J	1.3	0.13	CON	J	4.5	0.45	CON	J	2.3	0.23	CON	J	2.1	0.21
OCDD	0.0003			130	0.039			1600	0.48		J	340	0.102			680	0.204
OCDF	0.0003	J	U	6.2				78	0.0234			21	0.0063			46	0.0138
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.329***				***5.0534***				***0.8283***				***2.7078***

Table 3B

Sample Location ID		POND-1				SB-1				SB-2				PAD-X			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	98	0.98		J	49	0.49		J	44	0.44		J	38	0.38
1,2,3,4,6,7,8-HpCDF	0.01			14	0.14	J	U	5.2				12	0.12			11	0.11
1,2,3,4,7,8,9-HpCDF	0.01		UJ	ND			UJ	ND			UJ	ND			UJ	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1	J	U	4.7			U	ND		J	U	5.7		J	U	3.5	
1,2,3,6,7,8-HxCDD	0.1			7.8	0.78		U	ND			U	ND		J	U	2.8	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND		J	U	3.5		J	U	2.9	
1,2,3,7,8,9-HxCDD	0.1			6.6	0.66		U	ND		J	U	3		J	U	3	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		UJ	ND			UJ	ND		J	UJ	4.4			UJ	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND		J	U	3.2			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND		J	U	5.3			U	ND	
2,3,7,8-TCDD	1	J	U	0.78			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON	J	3.9	0.39	CON	UJ	ND		CON	J	6.1	0.61	CON	J	2.4	0.24
OCDD	0.0003		J	1100	0.33			2200	0.66		J	880	0.264			340	0.102
OCDF	0.0003			33	0.0099	J	U	12				21	0.0063			19	0.0057
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***3.2899***				***1.15***				***1.4403***				***0.8377***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	17	0.17		J	62	0.62		J	37	0.37
1,2,3,4,6,7,8-HpCDF	0.01		U	ND				16	0.16			7.5	0.075
1,2,3,4,7,8,9-HpCDF	0.01		UJ	ND			UJ	ND			UJ	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND		J	U	4.5			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND		J	U	3			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		UJ	ND		J	UJ	3			UJ	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND		J	U	3			U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	J CON	UJ	0.69		CON	J	5.1	0.51	CON	J	2.3	0.23
OCDD	0.0003			690	0.207			610	0.183			430	0.129
OCDF	0.0003			22	0.0066			30	0.009			22	0.0066
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.3836***				***1.482***				***0.8106***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted.

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.

QL/RL-Limit of Quantitation/sample specific reporting limit. See analytical results for sample specific reporting limit.

CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the RL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3A
Method 8290 Dioxin/Furan Results
March 2010 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			80	0.8			37	0.37		U	120	1.2			160	1.6
1,2,3,4,6,7,8-HpCDF	0.01			52	0.52	J	U	4.8			U	15	0.15			17	0.17
1,2,3,4,7,8,9-HpCDF	0.01	J	U	5			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1			ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1			21	2.1		U	ND		J	U	3.3			U	ND	
1,2,3,6,7,8-HxCDD	0.1			7.8	0.78		U	ND				7.1	0.71			11	1.1
1,2,3,6,7,8-HxCDF	0.1			19	1.9		U	ND		J	U	3.1			U	ND	
1,2,3,7,8,9-HxCDD	0.1			7.5	0.75		U	ND				8.3	0.83			9.4	0.94
1,2,3,7,8,9-HxCDF	0.1			ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1	J	U	3.9			U	ND		J	U	3.8			U	ND	
1,2,3,7,8-PeCDF	0.03			24	0.72		U	ND		J	U	4.8			U	ND	
2,3,4,6,7,8-HxCDF	0.1			15	1.5		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3			32	9.6		U	ND		J	U	5.2			U	ND	
2,3,7,8-TCDD	1			1.9	1.9		U	ND				2.0	2.0			1.6	1.6
2,3,7,8-TCDF	0.1	CON		32	3.2	CON		1.3	0.13	CON		13	1.3	CON		6.3	0.63
OCDD	0.0003			550	0.165			510	0.153			730	0.219			1500	0.45
OCDF	0.0003			28	0.0084	J	U	9.6				22	0.0066			32	0.010
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***23.9***				***0.7***				***6.4***				***6.5***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			63	0.63		U J	170	1.7			28	0.28			83	0.83
1,2,3,4,6,7,8-HpCDF	0.01			7.5	0.075		U J	20	0.2	J	U	4.2				17	0.17
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND		J	U	3.2			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1	J	U	3.5			U	6.8	0.68		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	3.6		J	U	4.5			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U J	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U J	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND		J	U J	1.1			U	ND				1.3	1.3
2,3,7,8-TCDF	0.1	CON	U	2.1	0.21	CON		4.2	0.42	CON		1.2	0.12	CON		2.8	0.28
OCDD	0.0003			450	0.135		J	2300	0.69			360	0.108			890	0.267
OCDF	0.0003	J	U	11				44	0.0132	J	U	7.5				41	0.0123
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***1.1***				***3.7***				***0.5***				***2.9***

Sample Location ID		POND-1				SB-1				SB-2				PAD-X			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			38	0.38			70	0.7			55	0.55			21	0.21
1,2,3,4,6,7,8-HpCDF	0.01	J	U	4.1		J	U	4.2		JQ	U	4.5		J	U	4.2	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		1.4	0.14		U	ND		J	U	0.8		CON		1.5	0.15
OCDD	0.0003			630	0.189		J	4600	1.38		J	3400	1.02			280	0.084
OCDF	0.0003	J	U	9.3		J	U J	13		J	U J	15		J	U	6.2	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.71***				***2.1***				***1.6***				***0.4***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			32	0.32			37	0.37			18	0.18
1,2,3,4,6,7,8-HpCDF	0.01	J	U	4.4				11	0.11	J	U	3.5	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	J CON	U	0.92		CON		2.8	0.28	CON		1.4	0.14
OCDD	0.0003			480	0.144			490	0.147			220	0.066
OCDF	0.0003	J	U	9.7				14	0.0042	J	U	6.6	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.5***				***0.9***				***0.4***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-203E\REPORTS\TEF TABLE - 2010.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.

QL-Limit of Quantitation specific QL. See analytical results for QL.

CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3A-1
Method 8290 Dioxin/Furan Results
March 2010 Event - Reextraction and Re-analysis PAD-1
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID			**PAD-1 - Reanalysis**			
Depth			**Lab**	**Val**	**0-6 inches**	
Constituent	**TEF**		**Flag**	**Flag**	**Result**	**TEQ**
1,2,3,4,6,7,8-HpCDD	0.01				82	0.82
1,2,3,4,6,7,8-HpCDF	0.01				27	0.27
1,2,3,4,7,8,9-HpCDF	0.01		J		3.3	
1,2,3,4,7,8-HxCDD	0.1				ND	
1,2,3,4,7,8-HxCDF	0.1				11	1.1
1,2,3,6,7,8-HxCDD	0.1				8.8	0.88
1,2,3,6,7,8-HxCDF	0.1				8.9	0.89
1,2,3,7,8,9-HxCDD	0.1				7.7	0.77
1,2,3,7,8,9-HxCDF	0.1				ND	
1,2,3,7,8-PeCDD	1.0		J		3.6	
1,2,3,7,8-PeCDF	0.03				14	0.42
2,3,4,6,7,8-HxCDF	0.1				7.2	0.72
2,3,4,7,8-PeCDF	0.3				17	5.1
2,3,7,8-TCDD	1.0				1.4	1.4
2,3,7,8-TCDF	0.1		CON		23	2.3
OCDD	0.0003				520	0.156
OCDF	0.0003				25	0.0075
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg						***14.8***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-203E\REPORTS\TEF TABLE - 2010.xls
TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).
2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.
QL-Limit of Quantitation specific QL. See analytical results for QL.
CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.
Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.
U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.
JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.
Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.
ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.
J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.
Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3A-2
Method 8290 Dioxin/Furan Results
March 2010 Event - April 28, 2010 Verification Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-1 DUP			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			430	4.3			34	0.34
1,2,3,4,6,7,8-HpCDF	0.01			48	0.48	J	U	4.3	
1,2,3,4,7,8,9-HpCDF	0.01			ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1	J	U J	4.5			U J	ND	
1,2,3,4,7,8-HxCDF	0.1			33	3.3	J	U	2.9	
1,2,3,6,7,8-HxCDD	0.1			14	1.4		U	ND	
1,2,3,6,7,8-HxCDF	0.1			13	1.3		U	ND	
1,2,3,7,8,9-HxCDD	0.1			15	1.5		U	ND	
1,2,3,7,8,9-HxCDF	0.1			ND			U	ND	
1,2,3,7,8-PeCDD	1.0			6.5	6.5		U	ND	
1,2,3,7,8-PeCDF	0.03			13	0.39		U	ND	
2,3,4,6,7,8-HxCDF	0.1			11	1.1		U	ND	
2,3,4,7,8-PeCDF	0.3			23	6.9		U	ND	
2,3,7,8-TCDD	1.0			2.9	2.9		U	ND	
2,3,7,8-TCDF	0.1	CON		18	1.8	CON		3.0	0.3
OCDD	0.0003			3500	1.05			210	0.063
OCDF	0.0003			78	0.0234	J	U	5.9	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg			**J**		***32.9***		**J**		***0.7***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-203E\REPORTS\TEF TABLE - 2010.xls
TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).
2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.
QL-Limit of Quantitation specific QL. See analytical results for QL.
CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.
Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.
U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.
JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.
Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.
ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.
J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.
Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.
concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3A-3
Method 8290 Dioxin/Furan Results
March 2010 - July 23, 2010 Co-located Verification Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1 (1)-E				PAD-1 (2)-W			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			7.3	0.073			44	0.44
1,2,3,4,6,7,8-HpCDF	0.01		U	ND		J	U	4.8	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND		J	U	4.3	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND		J	U	3.4	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND	
2,3,7,8-TCDF	0.1	J	U	1		CON		1.9	0.19
OCDD	0.0003			76	0.023			300	0.09
OCDF	0.0003		U	ND		J	U	8	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.10***				***0.72***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-203E\REPORTS\TEF TABLE - 2010.xls
TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).
2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.
QL-Limit of Quantitation specific QL. See analytical results for QL.
CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.
Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.
U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.
JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.
Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.
ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.
J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.
Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3B
Method 8290 Dioxin/Furan Results
November 2010 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg=pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	24	0.24		J	32	0.32		J	22	0.22		J	45	0.45
1,2,3,4,6,7,8-HpCDF	0.01	J	U	3.5		J	U	4.7		J	U	3.4				17	0.17
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND		J	U	5	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND		J	U	2.8	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND		J	U	3.8	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND		J	U	3.2	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND		J	U	2.8	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND		J	U	2.8	
2,3,7,8-TCDD	1		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		1	0.1	J CON	U	0.84		CON		1.2	0.12	CON		1.7	0.17
OCDD	0.0003		J	200	0.06		J	420	0.126		J	270	0.081		J	540	0.162
OCDF	0.0003	J	U	7.1		J	U	9.1		J	U	6.5				18	0.005
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.40***				***0.45***				***0.42***				***0.96***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	90	0.9		J	74	0.74		J	35	0.35		J	55	0.55
1,2,3,4,6,7,8-HpCDF	0.01			13	0.13			12	0.12			11	0.11			16	0.16
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND				17	1.7		U	ND	
1,2,3,6,7,8-HxCDD	0.1	J	U	3.1		J	U	2.9			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND				7.4	0.74		U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	4		J	U	3.5			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND				19	0.57		U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND				7.8	0.78		U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND				51	15.3		U	ND	
2,3,7,8-TCDD	1		U	ND			U	ND		J	U	0.99				2.5	2.5
2,3,7,8-TCDF	0.1	CON	U	1.1	0.11	CON		2.1	0.21	CON		71	7.1	CON		1.4	0.14
OCDD	0.0003		J	800	0.24		J	670	0.201		J	320	0.096		J	620	0.186
OCDF	0.0003			45	0.0135			25	0.0075			13	0.0039			60	0.018
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***1.39***				***1.28***				***26.7***				***3.55***

Sample Location ID		POND-1				SB-1				SB-2				PAD-XX (PAD-1)			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	20	0.2		J	57	0.57		J	74	0.74		J	27	0.27
1,2,3,4,6,7,8-HpCDF	0.01		U	ND				7.5	0.075			7.8	0.078	J	U	3.8	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	J	U	1.1		J CON	U	0.44		CON		1.4	0.14	CON		2	0.2
OCDD	0.0003		J	360	0.108		J	1900	0.57		J	2800	0.84		J	230	0.069
OCDF	0.0003	J	U	6.4		J	U	10				16	0.0048	J	U	7.4	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.31***				***1.22***				***1.80***				***0.54***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		J	58	0.58		J	43	0.43		J	32	0.32
1,2,3,4,6,7,8-HpCDF	0.01			6.6	0.066			9.2	0.092			7.2	0.072
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1			6.4	0.64		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1	J	U	5			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	J CON	U	0.88		CON		2.1	0.21	CON		1.5	0.15
OCDD	0.0003		J	640	0.192		J	480	0.144		J	320	0.096
OCDF	0.0003			16	0.0048			19	0.0057			23	0.0069
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***1.48***				***0.88***				***0.64***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-203F\REPORTS\TEF TABLE - 2010.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.

QL-Limit of Quantitation specific QL. See analytical results for QL.

CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3B-1
Method 8290 Dioxin/Furan Results
November 2010 - January 18, 2011 Verification Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-7				PAD-7 Duplicate			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			42	0.42			22	0.22
1,2,3,4,6,7,8-HpCDF	0.01			12	0.12	J	U	5	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		1.4	0.14	J CON	U	0.77	
OCDD	0.0003			380	0.114			240	0.072
OCDF	0.0003			16	0.005	J	U	8.7	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg			**J**		***0.80***		**J**		***0.29***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-203F\REPORTS\TEF TABLE - 2010.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL/RL.

QL-Limit of Quantitation specific QL. See analytical results for QL.

CON denotes confirmation analysis. **H** denotes OCDD/F reported from separate analytical analysis. PAD-X is a blind duplicate for PAD-7.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but quantitation limit is estimated. **J** (validation qualifier) Denotes result estimated. **UJ** denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL/RL(Quantitation Limit). **JQ** Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/huma
concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

n/rb-

Table 3A
Method 8290 Dioxin/Furan Results
January 31-February 1, 2011 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg=pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID		PAD-1				PAD-2				PAD-3				PAD-4			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			270	2.7			45	0.45			25	0.25			39	0.39
1,2,3,4,6,7,8-HpCDF	0.01			98	0.98			9.4	0.094	J	U	4.1				7.2	0.072
1,2,3,4,7,8,9-HpCDF	0.01			8.8	0.088		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1			10	1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1			53	5.3		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1			35	3.5		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1			59	5.9		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1			29	2.9		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1			18	18		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		J	46	1.38		U J	ND			U J	ND			U J	ND	
2,3,4,6,7,8-HxCDF	0.1			42	4.2		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3			65	19.5		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1			7.2	7.2		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	CON		80	8	CON		2	0.2	CON		2.3	0.23	CON		1.7	0.17
OCDD	0.0003		J	1300	0.39		J	520	0.156		J	450	0.135		J	540	0.162
OCDF	0.0003			88	0.0264		U	20	0.006	J	U	8				18	0.005
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***81.06***				***0.91***				***0.62***				***0.80***

Sample Location ID		PAD-5				PAD-6				PAD-7				PAD-8			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			7	0.07			180	1.8			41	0.41			52	0.52
1,2,3,4,6,7,8-HpCDF	0.01		U	ND				23	0.23			9.4	0.094			14	0.14
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND		J	U	3.4			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND				7.1	0.71		U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND		J	U	2.8			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND				6.7	0.67		U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U J	ND			U J	ND			U J	ND			U J	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1		U	ND		J	U	0.65			U	ND				1.4	1.4
2,3,7,8-TCDF	0.1	J	U	0.71		CON		3.5	0.35	CON		1.6	0.16	CON		1.9	0.19
OCDD	0.0003		J	150	0.045		J	2000	0.6		J	430	0.129		J	700	0.21
OCDF	0.0003		U	ND				81	0.0243			19	0.0057			57	0.0171
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.12***				***4.38***				***0.8***				***2.48***

Sample Location ID		POND-1				SB-1				SB-2				PAD-XX (Blind Dup. - PAD-1)			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			24	0.24			9.6	0.096			65	0.65			310	3.1
1,2,3,4,6,7,8-HpCDF	0.01	J		3.5			U	ND		J		6.1				100	1
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND				9.8	0.098
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND				25	2.5
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND				88	8.8
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND				73	7.3
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND				50	5
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND				55	5.5
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND			U	ND				29	29
1,2,3,7,8-PeCDF	0.03		U J	ND			U J	ND			U J	ND			J	63	1.89
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND				42	4.2
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND				85	25.5
2,3,7,8-TCDD	1.0		U	ND			U	ND			U	ND				6.3	6.3
2,3,7,8-TCDF	0.1	J CON	U	0.68			U	ND			U	ND		CON		58	5.8
OCDD	0.0003		J	550	0.165		J	260	0.078		J	3900	1.17		J	1200	0.36
OCDF	0.0003	J	U	9.3			U	ND				16	0.0048			50	0.015
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.41***				***0.17***				***1.82***				***106.36***

Sample Location ID		BERM-1				NB-1				NB-2			
Depth		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01			34	0.34			81	0.81			15	0.15
1,2,3,4,6,7,8-HpCDF	0.01			5.7	0.057			16	0.16		U	ND	
1,2,3,4,7,8,9-HpCDF	0.01		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8,9-HxCDF	0.1		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03		U J	ND			U J	ND			U J	ND	
2,3,4,6,7,8-HxCDF	0.1		U	ND			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		U	ND			U	ND			U	ND	
2,3,7,8-TCDD	1.0		U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1	J CON	U	0.88		CON		3.2	0.32		U	ND	
OCDD	0.0003		J	410	0.123		J	960	0.288		J	320	0.096
OCDF	0.0003			19	0.0057			67	0.0201	J		6.3	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg					***0.53***				***1.60***				***0.25***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-204\REPORTS\TEF TABLE - 2011.xls

Toxicity Equivalence Factor based on

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL.

QL-Limit of Quantitation/sample specific QL. See analytical results for sample specific QL.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but QL is estimated. J (validation qualifier) Denotes result estimated. UJ denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL. JQ Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3B
Method 8290 Dioxin/Furan Results
March 2, 2011 Verification Event
January 31-February 1, 2011 - Soil Monitoring Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg =pg/g=ppt

Action Level: TEQ >16 ng/kg, pg/g (Region IX)
Action Level: TEQ >18 ng/kg, pg/g (Region III)

Sample Location ID			PAD-1				PAD-1 Duplicate			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF		Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				39	0.39			39	0.39
1,2,3,4,6,7,8-HpCDF	0.01				5.7	0.057	J	U	5.6	
1,2,3,4,7,8,9-HpCDF	0.01			U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1			U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1			U	ND			U	ND	
1,2,3,6,7,8-HxCDD	0.1		J	U	3.3		J	U	3.5	
1,2,3,6,7,8-HxCDF	0.1			U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1			U	ND		J	U	3.3	
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0			U	ND			U	ND	
1,2,3,7,8-PeCDF	0.03			U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1			U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		J	U	3			U	ND	
2,3,7,8-TCDD	1.0			U	ND			U	ND	
2,3,7,8-TCDF	0.1		CON		4.5	0.45	CON	U	3.3	0.33
OCDD	0.0003				280	0.084			240	0.072
OCDF	0.0003		J	U	11		J	U	9.3	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg						***0.98***				***0.79***

Notes: Analytical Method: SW-846 8290 -TestAmerica West Sacramento, unless noted. P:\B03\200\B03204\B03204-204\REPORTS\TEF TABLE - 2011.xls

Region 3 Toxicity

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the QL.

QL-Limit of Quantitation/sample specific QL. See analytical results for sample specific QL.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U denotes not detected at or above the QL. See certificate of analysis for sample specific estimated detection limit.

JA Denotes result positively identified, but QL is estimated. J (validation qualifier) Denotes result estimated. UJ denotes analyte not detected, QL estimated.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND (Laboratory qualifier) denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated.

J (laboratory qualifier) Denotes result reported below QL. JQ Denotes the estimated maximum possible concentration.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (September 12, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated December 18, 2008 under Class 1 Permit Modification

Table 3
Method 8290A Dioxin/Furan Results
April 5, 2012 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg=pg/g=ppt

Sample Location ID			PAD-1				PAD-2				PAD-3				PAD-4			
Depth					0-6 inches				0-6 inches				0-6 inches				0-6 inches	
Constituent	TEF	Action Level	Lab Flag	Val Flag	Result	TEQ	Lab Flag	Val Flag	Result	TEQ	Lab Flag	Val Flag	Result	TEQ	Lab Flag	Val Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				21	0.21			22	0.22	J	J	4	0.04			70	0.7
1,2,3,4,6,7,8-HpCDF	0.01		J	J	5.1	0.051	Q J	J	3.8	0.038	J	J	1.2	0.012			12	0.12
1,2,3,4,7,8,9-HpCDF	0.01		J	J	0.67	0.0067	Q J	J	0.38	0.0038		U	ND		J	J	0.98	0.0098
1,2,3,4,7,8-HxCDD	0.1		J	J	0.5	0.05	J	J	0.6	0.06		U	ND		Q J	J	0.99	0.099
1,2,3,4,7,8-HxCDF	0.1		J	J	1.1	0.11	J	J	0.5	0.05	J	J	0.4	0.04	C J	J	2.1	0.21
1,2,3,6,7,8-HxCDD	0.1		J	J	2	0.2	Q J	J	1.2	0.12		U	ND		J	J	3.2	0.32
1,2,3,6,7,8-HxCDF	0.1		J	J	1.3	0.13	J	J	0.41	0.041		U	ND		J	J	1.3	0.13
1,2,3,7,8,9-HxCDD	0.1		J	J	1.8	0.18	Q J	J	1.3	0.13	Q J	J	0.41	0.041	C J	J	3.3	0.33
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		Q J	J	0.67	0.67	J	J	0.46	0.46		U	ND		Q J	J	0.72	0.72
1,2,3,7,8-PeCDF	0.03		Q J	J	1.6	0.048		U	ND			U	ND		Q J	J	0.35	0.0105
2,3,4,6,7,8-HxCDF	0.1		J	J	0.96	0.096	Q J	J	0.32	0.032		U	ND		J	J	0.72	0.072
2,3,4,7,8-PeCDF	0.3		Q J	J	1.5	0.45		U	ND		Q J	J	0.27	0.081	Q J	J	0.66	0.198
2,3,7,8-TCDD	1			U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		CON Q		3	0.3	CON J	J	0.7	0.07	J	J	0.57	0.057	X	J	2	0.2
OCDD	0.0003		B	J	150	0.045		J	250	0.075		J	52	0.0156	B	J	730	0.219
OCDF	0.0003		J	J	8.5	0.00255	J	J	4.4	0.00132	Q J	J	0.74	0.000222			21	0.006
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**			J	***2.55***			***J***	***1.30***			J	***0.29***			J	***3.34***

Sample Location ID			PAD-5				PAD-6				PAD-7				PAD-8			
Depth					0-6 inches				0-6 inches				0-6 inches				0-6 inches	
Constituent	TEF	Action Level	Lab Flag	Val Flag	Result	TEQ	Lab Flag	Val Flag	Result	TEQ	Lab Flag	Val Flag	Result	TEQ	Lab Flag	Val Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				5.9	0.059			49	0.49			14	0.14			49	0.49
1,2,3,4,6,7,8-HpCDF	0.01		J	J	1.2	0.012			6.6	0.066	J	J	2.8	0.028			11	0.11
1,2,3,4,7,8,9-HpCDF	0.01			U	ND		Q J	J	0.45	0.0045	Q J	J	0.21	0.0021	Q J	J	0.62	0.0062
1,2,3,4,7,8-HxCDD	0.1		J	J	0.23	0.023	J	J	1	0.1	J	J	0.27	0.027	Q J	J	0.64	0.064
1,2,3,4,7,8-HxCDF	0.1		J	J	0.24	0.024	J	J	1.1	0.11	Q J	J	0.7	0.07	J	J	0.93	0.093
1,2,3,6,7,8-HxCDD	0.1		Q J	J	0.33	0.033	J	J	2.7	0.27	Q J	J	0.58	0.058	J	J	2.7	0.27
1,2,3,6,7,8-HxCDF	0.1		Q J	J	0.11	0.011	J	J	0.55	0.055	J	J	0.36	0.036	J	J	0.65	0.065
1,2,3,7,8,9-HxCDD	0.1		Q J	J	0.41	0.041	C J	J	2.7	0.27	C J	J	0.96	0.096	J	J	2.6	0.26
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1			U	ND		Q J	J	0.67	0.67		U	ND		Q J	J	0.75	0.75
1,2,3,7,8-PeCDF	0.03			U	ND		J	J	0.46	0.0138	Q J	J	0.3	0.009	Q J	J	0.44	0.0132
2,3,4,6,7,8-HxCDF	0.1		Q J	J	0.19	0.019	J	J	0.47	0.047	Q J	J	0.2	0.02	J	J	0.49	0.049
2,3,4,7,8-PeCDF	0.3		Q J	J	0.2	0.06	Q J	J	0.53	0.159	Q J	J	0.34	0.102		U	ND	
2,3,7,8-TCDD	1			U	ND			U	ND			U	ND				1.9	1.9
2,3,7,8-TCDF	0.1		Q J	J	1	0.1	CON		1.4	0.14	CON J		0.88	0.088	CON Q		1.4	0.14
OCDD	0.0003			J	88	0.0264	B	J	1000	0.3	B	J	130	0.039	B	J	620	0.186
OCDF	0.0003		J	J	2.3	0.00069			15	0.0045	J	J	5.2	0.00156			31	0.0093
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		J		***0.41***		J		***2.70***		J		***0.7***		J		***4.41***

Table 3
Method 8290A Dioxin/Furan Results
April 5, 2012 Event

Sample Location ID			POND-1				SB-1				SB-2				PAD-XX (Blind Dup. - PAD-1)			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				67	0.67			27	0.27			15	0.15			24	0.24
1,2,3,4,6,7,8-HpCDF	0.01				11	0.11	J	J	4.4	0.044	J	J	2	0.02	J	J	4.7	0.047
1,2,3,4,7,8,9-HpCDF	0.01		Q J	J	0.66	0.0066	Q J	J	0.28	0.0028		U	ND		Q J	J	0.52	0.0052
1,2,3,4,7,8-HxCDD	0.1		Q J	J	1.3	0.13	Q J	J	0.28	0.028	Q J	J	0.34	0.034	Q J	J	0.51	0.051
1,2,3,4,7,8-HxCDF	0.1		Q J	J	0.98	0.098	Q J	J	0.35	0.035		U	ND		J	J	1.4	0.14
1,2,3,6,7,8-HxCDD	0.1		J	J	4.2	0.42	Q J	J	0.67	0.067	Q J	J	0.29	0.029	Q J	J	2.2	0.22
1,2,3,6,7,8-HxCDF	0.1		Q J	J	1.3	0.13	J	J	0.16	0.016		U	ND		Q J	J	1.2	0.12
1,2,3,7,8,9-HxCDD	0.1		J	J	3.4	0.34	J	J	0.84	0.084	J	J	0.54	0.054	J	J	2	0.2
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		Q J	J	0.95	0.95		U	ND			U	ND		Q J	J	0.72	0.72
1,2,3,7,8-PeCDF	0.03		J	J	0.82	0.0246		U	ND			U	ND		J	J	1.9	0.057
2,3,4,6,7,8-HxCDF	0.1		J	J	0.84	0.084		U	ND			U	ND		J	J	0.91	0.091
2,3,4,7,8-PeCDF	0.3		J	J	1.1	0.33		U	ND			U	ND		J	J	1.8	0.54
2,3,7,8-TCDD	1.0			U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		CON		1.6	0.16	Q J	J	0.53	0.053	Q J	J	0.41	0.041	CON Q	J	3.4	0.34
OCDD	0.0003		B	J	910	0.273		J	1000	0.3		J	620	0.186	B	J	190	0.057
OCDF	0.0003				21	0.0063	J	J	4.8	0.00144			1.8	0.00054	J	J	6.8	0.00204
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***3.73***		**J**		***0.90***		**J**		***0.51***		**J**		***2.83***

Sample Location ID			BERM-1				NB-1				NB-2			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01				21	0.21			31	0.31			18	0.18
1,2,3,4,6,7,8-HpCDF	0.01		J	J	3.2	0.032			7.2	0.072	J	J	3.7	0.037
1,2,3,4,7,8,9-HpCDF	0.01		Q S J	J	0.43	0.0043	Q J	J	0.53	0.0053	Q J	J	0.33	0.0033
1,2,3,4,7,8-HxCDD	0.1		Q J	J	0.51	0.051	Q J	J	0.52	0.052	Q J	J	0.31	0.031
1,2,3,4,7,8-HxCDF	0.1		Q J	J	0.37	0.037	Q J	J	0.92	0.092	Q J	J	0.51	0.051
1,2,3,6,7,8-HxCDD	0.1		J	J	2.9	0.29	J	J	1.2	0.12	J	J	0.68	0.068
1,2,3,6,7,8-HxCDF	0.1		J	J	0.45	0.045	Q J	J	0.99	0.099	J	J	0.38	0.038
1,2,3,7,8,9-HxCDD	0.1		J	J	2.4	0.24	J	J	1.6	0.16	J	J	0.9	0.09
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		J	J	0.62	0.62	Q J	J	0.58	0.58	Q J	J	0.4	0.4
1,2,3,7,8-PeCDF	0.03			U	ND		Q J	J	1	0.03	Q J	J	0.39	0.0117
2,3,4,6,7,8-HxCDF	0.1		Q J	J	0.17	0.017	J	J	0.81	0.081	J	J	0.39	0.039
2,3,4,7,8-PeCDF	0.3		Q J	J	0.31	0.093	J	J	1.2	0.36	Q J	J	0.47	0.141
2,3,7,8-TCDD	1.0			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		CON Q J	J	0.71	0.071	CON		2.2	0.22	CON		1.3	0.13
OCDD	0.0003		B	J	160	0.048	B	J	370	0.111	B	J	180	0.054
OCDF	0.0003		J	J	6.4	0.00192	J	J	14	0.0042	J	J	7.1	0.00213
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***1.76***		**J**		***2.30***		**J**		***1.28***

Notes: Analytical Method: SW-846 8290A -TestAmerica Knoxville, Knoxville, TN. P:\B03\200\B03204\B03204-206P\REPORTS\TEF TABLE - 2012.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the EDL.

QL-Limit of Quantitation/sample specific QL. EDL-Laboratory Estimated Detection Limit See analytical results for sample specific QL. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U - denotes not detected at or above the EDL. See certificate of analysis for sample specific estimated detection limit.

JA - Denotes result positively identified, but result is estimated. J - Denotes result estimated. UJ - denotes analyte not detected above DL, EDL/QL estimated due to validation.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated. X See project narrative. S denotes ion suppression.

J Denotes result reported below QL. Q Denotes the estimated maximum possible concentration. B Denotes method blank contaimination. C denotes co-eluting isomer.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (May 17, 2010). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated September 27, 2011 under Class 3 Permit Modification

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	27000	8330A	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330A	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
4/9/2013	-		-		-		-		-		-		-		-		U	J	U	J	0.2	J	0.25	79	8330A	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
4/9/2013	-		-		-		-		-		-		-		-		U		U		0.11	J	0.25	5.5	8330A	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	620	8330A	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
4/9/2013	-		-		-		-		-		-		-		-		U		U		0.21	J	0.25	2000	8330A	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	13	8330A	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 106-44-5*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	3100	8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330A	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
4/9/2013	-		-		-		-		-		-		-		-		U		U		0.34	J	0.25	1900	8330A	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	3100	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	110	8330A	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
4/9/2013	-		-		-		-		-		-		-		-		2.3		1.6	J	1.8		1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
4/9/2013	-		-		-		-		-		-		-		-		120		98		140		20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
4/9/2013	-		-		-		-		-		-		-		-		1.7		U		0.11	J	0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
4/9/2013	-		-		-		-		-		-		-		-		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
4/9/2013	-		-		-		-		-		-		-		-		0.42	J	0.22	J	0.2	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		1	5.6	7196A	mg/kg

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
4/9/2013	-		-		-		-		-		-		-		-		15	J	13	J	19	J	1	1400	6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
4/9/2013	-		-		-		-		-		-		-		-		1.1	J	0.6	J	0.36	J	0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
4/9/2013	-		-		-		-		-		-		-		-		1.6		U		U		0.33	1000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
4/9/2013	-		-		-		-		-		-		-		-		1.2	J	U		0.39	J	0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	120	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
4/9/2013	-		-		-		-		-		-		-		-		U	J	U	J	U	J	2.2	49000	8330A	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
4/9/2013	-		-		-		-		-		-		-		-		230	J	210	J	170	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.1	34	7471A	mg/kg
Methylene Chloride					*CAS #: 75-09-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	53	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.25	24	8330A	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
4/9/2013	-		-		-		-		-		-		-		-		1.29	J	0.991	J	0.615	J	2.5	62	8332	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
4/9/2013	-		-		-		-		-		-		-		-		U	J	0.3	J	0.37	J	1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.33	180000	8270D	mg/kg

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		1	24	8330A	mg/kg
Selenium					*CAS #: 7782-49-2*																					
4/9/2013	-		-		-		-		-		-		-		-		U		U		U		0.5	5100	6010C	mg/kg
Silver					*CAS #: 7440-22-4*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	2.6	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.65	2500	8330A	mg/kg
Toluene					*CAS #: 108-88-3*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		10	11000	8015B	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
4/9/2013	-		-		-		-		-		-		-		-		U		U		U		0.005	14	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
4/9/2013	-		-		-		-		-		-		-		-		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above DL. AL Denotes permit Action limit.
J Denotes result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Denotes laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled. **AL and RL** obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification.

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the RL and AL unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and AL unless noted.

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
4/9/2013	U		U		0.22	J	0.24	J	U		U		U		U		-		-		-		0.25	27000	8330A	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
4/9/2013	U		U		U		0.17	J	U		U		U		U		-		-		-		0.25	62	8330A	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
4/9/2013	2.3	J	0.39	J	0.32	J	1.4	J	U	J	U	J	U	J	U	J	0.34	J	U	J	U	J	0.25	79	8330A	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
4/9/2013	0.58	J	0.33	J	U		U		U		0.23	J	U		U		U		U		U		0.25	5.5	8330A	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
4/9/2013	1.4	J	U		U		0.33	J	U		U		U		U		-		-		-		0.25	620	8330A	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
4/9/2013	U		0.33	J	0.15	J	U		U		U		U		U		U		U		U		0.25	2000	8330A	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.25	13	8330A	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
4/9/2013	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 106-44-5*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	3100	8270C	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330A	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
4/9/2013	U		0.53	J	0.3	J	U		U		U		U		U		U		U		U		0.25	1900	8330A	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	3100	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.25	110	8330A	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
4/9/2013	1.6		2.4		1.9		2.6		2.1		1.7		1.9		1.9		2.2		2.7		3.1		1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
4/9/2013	89		110		74		82		90		79		120		94		110		100		150		20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
4/9/2013	U		0.005	J	0.028	J	0.52		U		U		0.008	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
4/9/2013	U	J	0.009	J	0.028	J	0.017	J	U		U	J	0.01	J	U		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
4/9/2013	0.005	J	0.018	J	0.07	J	0.82		U		0.023	J	0.016	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
4/9/2013	U	J	0.007	J	0.06	J	0.32	J	U		U	J	0.005	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
4/9/2013	U		0.2		U		U		U		U		U		U		0.1	J	U		U		0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
4/9/2013	U		U		U		U		U		U		U		U		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
4/9/2013	0.12	J	0.39	J	0.15	J	0.29	J	0.089	J	0.22	J	0.12	J	0.084	J	0.36	J	0.32	J	0.3	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
4/9/2013	U		0.73	J	0.97		0.91	J	U		U		U		U		-		-		-		1	5.6	7196A	mg/kg

See last page of this report for definitions.

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
4/9/2013	13	J	14	J	21	J	16	J	12	J	18	J	10	J	17	J	18	J	18	J	27	J	1	1400	6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
4/9/2013	U	j	U		0.033	J	0.064	J	U		U	J	U		U		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
4/9/2013	0.096	J	0.38	J	U		0.51	J	U		2.6	J	U		U		0.57		0.24	J	U		0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
4/9/2013	U		U		U		U		U		U		U		U		U		U		U		0.33	1000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
4/9/2013	0.75	J	0.3	J	17	J	0.58	J	U		22	J	0.087	J	0.5	J	0.58		U		U		0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
4/9/2013	U		0.006	J	0.028	J	1		0.004	J	U		0.014	J	U		-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	120	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
4/9/2013	U	J	U	J	U	J	1.7	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	2.2	49000	8330A	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
4/9/2013	U	J	0.01	J	0.038	J	0.36		U		U	J	0.006	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
4/9/2013	42	J	210	J	300	J	150	J	45	J	710	J	77	J	30	J	140	J	69	J	53	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
4/9/2013	U		U		U		U		U		0.027	J	U		U		-		-		-		0.1	34	7471A	mg/kg
Methylene Chloride					*CAS #: 75-09-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	53	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
4/9/2013	U		0.008	J	U		0.05	J	0.004	J	U		0.004	J	U		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.25	24	8330A	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
4/9/2013	18.2	J	3.3	J	18.8	J	10.6	J	7.26	J	13.5	J	2.89	J	U		U		U		U		2.5	62	8332	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
4/9/2013	0.11	J	0.091	J	1.1	J	0.35	J	U	J	1	J	0.065	J	0.12	J	0.2		U	J	U	J	1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
4/9/2013	U	J	U	J	U	J	U	J	U	J	0.00418	J	0.00263	J	U	J	-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.33	180000	8270D	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
4/9/2013	U	J	U	J	U	J	4.7	J	U	J	0.17	J	U	J	U	J	-		-		-		1	24	8330A	mg/kg
Selenium					*CAS #: 7782-49-2*																					
4/9/2013	U		U		U		U		U		U		U		U		U		0.73	J	U		0.5	5100	6010C	mg/kg
Silver					*CAS #: 7440-22-4*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	2.6	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.65	2500	8330A	mg/kg
Toluene					*CAS #: 108-88-3*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
4/9/2013	U		-		-		52		-		-		U		-		-		-		-		10	11000	8015B	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
4/9/2013	U		U		U		U		U		U		U		U		U		U		U		0.005	14	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
4/9/2013	U		U		U		U		U		U		U		U		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. However, RLs, QLs and method detection limit (DL) are less than the AL except where noted with an "A" qualifier. See data validation for actual laboratory QL. **Q** Denotes data validation qualifie
U Denotes analyte not detected at or above DL. **AL** Denotes permit Action limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification).
J Denotes is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled.
NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
For the April 2013 event, Method 8270D aliquots for POND-1 were recollected on September 10, 2013.

See last page of this report for definitions.

Table 3
Method 8290A Dioxin/Furan Results
April 9, 2013 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg=pg/g=ppt

Sample Location ID			PAD-1				PAD-2				PAD-3				PAD-4			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		5.2	0.052	B		40	0.4	B		8.7	0.087	B		60	0.6
1,2,3,4,6,7,8-HpCDF	0.01		J	J	0.88	0.0088	Q J	J	4.4	0.044	J	J	1.5	0.015			8.9	0.089
1,2,3,4,7,8,9-HpCDF	0.01			U	ND			U	ND			U	ND		J	J	0.71	0.0071
1,2,3,4,7,8-HxCDD	0.1		J	J	0.19	0.019	J	J	0.8	0.08	Q J	J	0.34	0.034	J	J	1.7	0.17
1,2,3,4,7,8-HxCDF	0.1		Q J	J	0.15	0.015	Q J	J	0.46	0.046	Q J	J	0.52	0.052	Q J	J	0.67	0.067
1,2,3,6,7,8-HxCDD	0.1		Q J	J	0.3	0.03	J	J	5.1	0.51	Q J	J	0.48	0.048	Q J	J	3.5	0.35
1,2,3,6,7,8-HxCDF	0.1		Q J	J	0.15	0.015		U	ND		Q J	J	0.39	0.039	Q J	J	0.66	0.066
1,2,3,7,8,9-HxCDD	0.1		Q J	J	0.35	0.035	Q J	J	2.5	0.25	J	J	0.59	0.059	J	J	4.5	0.45
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1			U	ND		Q J	J	0.62	0.62		U	ND		Q J	J	1.4	1.4
1,2,3,7,8-PeCDF	0.03			U	ND			U	ND		Q J	J	0.3	0.009	Q J	J	0.45	0.0135
2,3,4,6,7,8-HxCDF	0.1		Q J	J	0.097	0.0097	Q J	J	0.48	0.048	Q J	J	0.33	0.033	Q J	J	0.53	0.053
2,3,4,7,8-PeCDF	0.3		Q J	J	0.13	0.039		U	ND		Q J	J	0.5	0.15	J	J	0.82	0.246
2,3,7,8-TCDD	1			U	ND			U	ND			U	ND		Q J	J	0.16	0.16
2,3,7,8-TCDF	0.1		Q J		0.065	0.0065	Q J	J	0.59	0.059	Q J	J	0.96	0.096	Q X	J	1.7	0.17
OCDD	0.0003			J	53	0.0159		J	500	0.15		J	110	0.033		J	530	0.159
OCDF	0.0003		J	J	1.6	0.00048	J	J	9.1	0.00273	J	J	2.2	0.00066			16	0.005
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.25***		**J**		***2.21***		**J**		***0.66***		**J**		***4.01***

Sample Location ID			PAD-5				PAD-6				PAD-7				PAD-8			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		Q B		5.3	0.053	B		35	0.35	B		6.8	0.068	B		6	0.06
1,2,3,4,6,7,8-HpCDF	0.01		Q J	J	0.92	0.0092			5.7	0.057	J	J	1.2	0.012	J		0.87	0.0087
1,2,3,4,7,8,9-HpCDF	0.01			U	ND		J	J	0.48	0.0048		U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1			U	ND		Q J	J	0.92	0.092	Q J	J	0.16	0.016		U	ND	
1,2,3,4,7,8-HxCDF	0.1		J	J	0.22	0.022	Q J	J	0.7	0.07	Q J	J	0.34	0.034		U	ND	
1,2,3,6,7,8-HxCDD	0.1		Q J	J	0.28	0.028	J	J	1.8	0.18	J	J	0.3	0.03	J	J	0.22	0.022
1,2,3,6,7,8-HxCDF	0.1		J	J	0.13	0.013	Q J	J	0.45	0.045		U	ND			U	ND	
1,2,3,7,8,9-HxCDD	0.1		J	J	0.55	0.055	Q J	J	2.2	0.22	Q J	J	0.56	0.056	J	J	0.49	0.049
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1			U	ND		Q J	J	0.74	0.74	Q J	J	0.19	0.19		U	ND	
1,2,3,7,8-PeCDF	0.03			U	ND		J	J	0.32	0.0096		U	ND			U	ND	
2,3,4,6,7,8-HxCDF	0.1		Q J	J	0.11	0.011	J	J	0.54	0.054		U	ND			U	ND	
2,3,4,7,8-PeCDF	0.3		Q J	J	0.21	0.063	J	J	0.71	0.213		U	ND		Q J	J	0.17	0.051
2,3,7,8-TCDD	1			U	ND		J	J	0.21	0.21		U	ND			U	ND	
2,3,7,8-TCDF	0.1		Q J	J	0.22	0.022	Q J CON		1	0.1	Q J		0.33	0.033		U	ND	
OCDD	0.0003			J	140	0.042		J	370	0.111		J	120	0.036		J	220	0.066
OCDF	0.0003		J	J	1.5	0.00045			12	0.0036	Q J	J	2	0.0006	J	J	1.6	0.00048
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.32***		**J**		***2.46***		**J**		***0.5***		**J**		***0.26***

Table 3
Method 8290A Dioxin/Furan Results
April 9, 2013 Event

Sample Location ID			POND-1				SB-1				SB-2				PAD-XX (Blind Dup. - PAD-1)			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		70	0.7	B		57	0.57	B		53	0.53	B		9.2	0.092
1,2,3,4,6,7,8-HpCDF	0.01				11	0.11	S J	J	5.5	0.055	S J	J	4.1	0.041	Q J	J	1.6	0.016
1,2,3,4,7,8,9-HpCDF	0.01		J	J	0.99	0.0099	J	J	0.63	0.0063		U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		J	J	1.4	0.14	Q J	J	0.69	0.069	J	J	0.79	0.079	J	J	0.3	0.03
1,2,3,4,7,8-HxCDF	0.1		Q J	J	2.2	0.22	Q S J	J	0.43	0.043	Q S J	J	0.27	0.027	J	J	0.28	0.028
1,2,3,6,7,8-HxCDD	0.1		J	J	4.4	0.44	J	J	1.6	0.16	Q J	J	0.81	0.081	Q J	J	0.46	0.046
1,2,3,6,7,8-HxCDF	0.1		J	J	1.1	0.11	Q J	J	0.38	0.038	Q J	J	0.24	0.024	Q J	J	0.3	0.03
1,2,3,7,8,9-HxCDD	0.1		C J	J	4.7	0.47	J	J	2	0.2	J	J	2.1	0.21	Q J	J	0.68	0.068
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		Q J	J	1.1	1.1	J	J	0.42	0.42	Q J	J	0.4	0.4	Q J	J	0.19	0.19
1,2,3,7,8-PeCDF	0.03		J	J	0.97	0.0291	Q J	J	0.32	0.0096		U	ND		Q J	J	0.17	0.0051
2,3,4,6,7,8-HxCDF	0.1		J	J	0.98	0.098	J	J	0.45	0.045	Q J	J	0.23	0.023	Q J	J	0.28	0.028
2,3,4,7,8-PeCDF	0.3		J	J	1.1	0.33	J	J	0.5	0.15	Q J	J	0.26	0.078	Q J	J	0.25	0.075
2,3,7,8-TCDD	1.0		Q J	J	0.35	0.35	Q J	J	0.14	0.14		U	ND			U	ND	
2,3,7,8-TCDF	0.1		CON		2	0.2	Q J	J	0.85	0.085	Q J	J	0.26	0.026	J		0.63	0.063
OCDD	0.0003		B	J	1200	0.36		J	1600	0.48		J	2400	0.72		J	83	0.0249
OCDF	0.0003				24	0.0072	J	J	8.8	0.00264	J	J	9.2	0.00276	J	J	2.6	0.00078
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***4.67***		**J**		***2.47***		**J**		***2.24***		**J**		***0.70***

Sample Location ID			BERM-1				NB-1				NB-2			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		45	0.45	B		51	0.51	B		45	0.45
1,2,3,4,6,7,8-HpCDF	0.01				5.8	0.058			12	0.12	S	J	6.9	0.069
1,2,3,4,7,8,9-HpCDF	0.01		J	J	0.51	0.0051	J	J	1.5	0.015	J	J	0.89	0.0089
1,2,3,4,7,8-HxCDD	0.1		Q J	J	0.71	0.071	J	J	1.1	0.11	J	J	0.76	0.076
1,2,3,4,7,8-HxCDF	0.1		J	J	0.46	0.046	Q J	J	1.5	0.15	Q J	J	0.82	0.082
1,2,3,6,7,8-HxCDD	0.1				8.2	0.82	J	J	2.4	0.24	J	J	1.8	0.18
1,2,3,6,7,8-HxCDF	0.1		Q J	J	0.55	0.055	J	J	1.5	0.15	J	J	0.91	0.091
1,2,3,7,8,9-HxCDD	0.1		C J	J	5.1	0.51	C J	J	2.9	0.29	C J	J	2.5	0.25
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		J	J	1.3	1.3	Q J	J	0.69	0.69	Q J	J	0.54	0.54
1,2,3,7,8-PeCDF	0.03		Q J	J	0.41	0.0123	J	J	1.4	0.042	J	J	0.9	0.027
2,3,4,6,7,8-HxCDF	0.1		J	J	0.47	0.047	Q J	J	1	0.1	Q J	J	0.42	0.042
2,3,4,7,8-PeCDF	0.3		Q J	J	0.37	0.111	J	J	1.6	0.48	Q J	J	0.93	0.279
2,3,7,8-TCDD	1.0			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		J	J	0.88	0.088	CON		3.5	0.35	Q		2	0.2
OCDD	0.0003			J	560	0.168		J	510	0.153		J	430	0.129
OCDF	0.0003		J	J	11	0.0033			20	0.006			14	0.0042
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***3.74***		**J**		***3.41***		**J**		***2.43***

Notes: Analytical Method: SW-846 8290 -TestAmerica Knoxville, Knoxville, TN. P:\B03\200\B03204\B03204-207\WORK\Table 3 - Dioxin-Furan TEF Table OBG 2013.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the EDL.

QL-Limit of Quantitation/sample specific QL. EDL-Laboratory Estimated Detection Limit See analytical results for sample specific QL. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U - denotes not detected at or above the EDL. See certificate of analysis for sample specific estimated detection limit.

JA - Denotes result positively identified, but result is estimated. J - Denotes result estimated. UJ - denotes analyte not detected above DL, EDL/QL estimated due to validation.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated. X See project narrative. S denotes ion suppression.

J Denotes result reported below QL. Q Denotes the estimated maximum possible concentration. B Denotes method blank contaimination. C denotes co-eluting isomer.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (May 17, 2010). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated September 27, 2011 under Class 3 Permit Modification

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.25	27000	8330B	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330B	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
7/31/2014	U		U		U		U		U		U		U		U		0.327	J	U		0.527	J	0.25	79	8330B	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
7/31/2014	U		U		U		3.18		0.433		U		U		U		2.28		U		U		0.25	5.5	8330B	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
7/31/2014	0.418	J	U		U		U		U		U		U		U		-		-		-		0.25	1.2	8330B	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
7/31/2014	U		U		U		U		U		U		U		U		U		U		U		0.25	2000	8330B	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.25	13	8330B	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
7/31/2014	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	U	AJ	-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 108-39-4*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	31000	8270D	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330B	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.25	1900	8330B	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	62000	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.25	110	8330B	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
7/31/2014	1.4	J	2.2	J	1.2	J	2	J	1.6	J	0.88	J	1.9	J	1.4	J	1.7	J	2.1	J	2.2	J	1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
7/31/2014	89	J	120	J	92	J	140	J	140	J	92	J	100	J	80	J	92	J	100	J	120	J	20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
7/31/2014	U		0.005	J	U		0.027	J	U		U		U		U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
7/31/2014	U		U		U		U	J	U		U		U		U		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
7/31/2014	0.31		U		7.9		U		U		U		U		U		U		U		0.47		0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
7/31/2014	U		U		U		U		U		U		U		U		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
7/31/2014	0.12	J	0.23	J	0.1	J	0.27	J	0.11	J	0.16	J	0.11	J	0.059	J	0.14	J	0.23	J	0.39	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
7/31/2014	U		0.74	J	2.4		U		U		1.6		U		U		-		-		-		1	5.6	7196A	mg/kg

See last page of this report for definitions.

Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
7/31/2014	13	J	35	J	17	J	16	J	13	J	30	J	13	J	13	J	13	J	19	J	21	J	1		6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
7/31/2014	U		U		U		0.42	J	U		0.78	J	0.17	J	U		0.36		U		0.51		0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
7/31/2014	U		U		U		U		U		U		U		0.15	J	U		U		U		0.33	10000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
7/31/2014	0.32		0.12	J	56		1.1		0.19		20		0.48	J	0.43		0.4		U		2.4		0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
7/31/2014	U		0.005	J	U		0.029	J	0.006	J	0.076	J	0.005	J	0.004	J	-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	43	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
7/31/2014	U	J	U	J	U	J	0.836	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	2.2	49000	8330B	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
7/31/2014	38	J	160	J	280	J	270	J	150	J	610	J	81	J	110	J	86	J	54	J	120	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
7/31/2014	U		U		U		U		0.027	J	0.019	J	U		U		-		-		-		0.1	43	7471A	mg/kg
Methylene Chloride					*CAS #: 75-09-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	960	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
7/31/2014	U		U		U		0.034	J	0.005	J	U		0.007	J	U		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.25	24	8330B	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
7/31/2014	23.1		9.17		174		17.5		11.1		53.1		20.2	J	13.2		8.66		U		U		2.5	62	8330B	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
7/31/2014	0.073	J	U	J	3.3	J	0.56	J	0.038	J	1.7	J	0.17	J	0.074	J	0.098	J	U	J	0.079	J	1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
7/31/2014	U	J	U	J	U	J	0.00491	J	0.00756	J	0.00621	J	0.00181	J	U	J	-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.33	180000	8270D	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
7/31/2014	U		U		U		5.28		U		U		U		U		-		-		-		1	24	8330B	mg/kg
Selenium					*CAS #: 7782-49-2*																					
7/31/2014	U		U		U		U		0.41	J	U		U		U		U		U		U		1	5100	6010C	mg/Kg
Silver					*CAS #: 7440-22-4*																					
7/31/2014	0.11	J	0.29	J	0.14	J	0.15	J	0.11	J	U		U		0.11	J	-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	110	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
7/31/2014	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.65	1200	8330B	mg/kg
Toluene					*CAS #: 108-88-3*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
7/31/2014	U	J	-		-		190	J	-		-		8.4	J	-		-		-		-		20	11000	8015C	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
7/31/2014	U		U		U		U		U		U		U		U		U		U		U		0.005	6.4	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
7/31/2014	U		U		U		U		U		U		U		U		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification updated June 2014). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. However, RLs, QLs and method detection limit (DL) are less than the AL except where noted with an "A" qualifier. See data validation for actual laboratory QL. **Q** Denotes data validation qualifie
U Denotes analyte not detected at or above DL. **AL** Denotes permit Action limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification, updated June 2014).
J Denotes is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled.
NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
For the April 2013 event, Method 8270D aliquots for POND-1 were recollected on September 10, 2013.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	27000	8330B	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330B	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
7/31/2014	-		-		-		-		-		-		-		-		0.131	J	U		U		0.25	79	8330B	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
7/31/2014	-		-		-		-		-		-		-		-		U		U		U		0.25	5.5	8330B	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	1.2	8330B	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
7/31/2014	-		-		-		-		-		-		-		-		U		U		U		0.25	2000	8330B	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	13	8330B	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 108-39-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	31000	8270D	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330B	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
7/31/2014	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	1900	8330B	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	62000	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	110	8330B	mg/kg

See last page of this report for definitions.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
7/31/2014	-		-		-		-		-		-		-		-		1.6	J	1.3	J	1.8	J	1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
7/31/2014	-		-		-		-		-		-		-		-		110	J	100	J	81	J	20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
7/31/2014	-		-		-		-		-		-		-		-		0.7		0.34		0.082	J	0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
7/31/2014	-		-		-		-		-		-		-		-		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
7/31/2014	-		-		-		-		-		-		-		-		0.43	J	0.2	J	0.16	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		1	5.6	7196A	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
7/31/2014	-		-		-		-		-		-		-		-		15	J	12	J	14	J	1		6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
7/31/2014	-		-		-		-		-		-		-		-		1.2		0.65		U		0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
7/31/2014	-		-		-		-		-		-		-		-		0.33		U		U		0.33	10000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
7/31/2014	-		-		-		-		-		-		-		-		0.99		0.54		2.1		0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	43	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
7/31/2014	-		-		-		-		-		-		-		-		U	J	0.224	J	U	J	2.2	49000	8330B	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
7/31/2014	-		-		-		-		-		-		-		-		240	J	210	J	120	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.1	43	7471A	mg/kg
Methylene Chloride					*CAS #: 75-09-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	960	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.25	24	8330B	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
7/31/2014	-		-		-		-		-		-		-		-		1.98		0.741	J	14		2.5	62	8330B	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
7/31/2014	-		-		-		-		-		-		-		-		0.2	J	0.17	J	0.12	J	1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.33	180000	8270D	mg/kg

Table 2B - Summary of Analytical Results
Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		1	24	8330B	mg/kg
Selenium					*CAS #: 7782-49-2*																					
7/31/2014	-		-		-		-		-		-		-		-		U		U		U		1	5100	6010C	mg/Kg
Silver					*CAS #: 7440-22-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	110	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.65	1200	8330B	mg/kg
Toluene					*CAS #: 108-88-3*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		20	11000	8015C	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
7/31/2014	-		-		-		-		-		-		-		-		U		U		U		0.005	6.4	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
7/31/2014	-		-		-		-		-		-		-		-		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above DL. AL Denotes permit Action limit.
J Denotes result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Denotes laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled. **AL and RL** obtained from permit modification – Table 1 Attachment II.C-23-24, updated June 2014, Class I Permit Mod

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the RL and AL unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and AL unless noted.

Table 3
Method 8290A Dioxin/Furan Results
July 31, 2014 Event
2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Facility AAP, Open Burning Ground Soil Monitoring Program
All results presented in ng/kg=pg/g=ppt

Sample Location ID			PAD-1				PAD-2				PAD-3				PAD-4			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		9.3	0.093	B		21	0.21	B		24	0.24	B		78	0.78
1,2,3,4,6,7,8-HpCDF	0.01		Q B J	U	ND		B J	J	3.4	0.034	Q B J	J	3.4	0.034	B		9.2	0.092
1,2,3,4,7,8,9-HpCDF	0.01		Q B J	U	ND		B J	U	ND		Q B J	U	ND		Q B J	U	ND	
1,2,3,4,7,8-HxCDD	0.1		Q B J	U	ND		Q B J	J	0.71	0.071	B J	U	ND		B J	J	2.7	0.27
1,2,3,4,7,8-HxCDF	0.1			U	ND		Q B J	J	0.99	0.099	Q B J	U	ND		Q B J	J	1.8	0.18
1,2,3,6,7,8-HxCDD	0.1		Q B J	U	ND		B J	J	1.7	0.17	B J	J	1.2	0.12	B J	J	5.4	0.54
1,2,3,6,7,8-HxCDF	0.1		Q B J	U	ND		Q B J	U	ND		Q B J	U	ND		Q B J	J	1.4	0.14
1,2,3,7,8,9-HxCDD	0.1		Q B J	U	ND		C B J	J	1.9	0.19	Q B J	U	ND		C B	J	8.4	0.84
1,2,3,7,8,9-HxCDF	0.1			U	ND		B J	U	ND			U	ND		Q B J	U	ND	
1,2,3,7,8-PeCDD	1		Q J	J	0.17	0.17	Q J	J	0.65	0.65	Q J	J	0.37	0.37	J	J	4.1	4.1
1,2,3,7,8-PeCDF	0.03			U	ND		Q B J	J	0.31	0.0093	Q B J	J	0.32	0.0096	Q B J	J	0.65	0.0195
2,3,4,6,7,8-HxCDF	0.1			U	ND		B J	U	ND		B J	U	ND		Q B J	U	ND	
2,3,4,7,8-PeCDF	0.3		Q B J	U	ND		B J	U	ND		B J	U	ND		Q B J	J	0.92	0.276
2,3,7,8-TCDD	1			U	ND		Q B J	J	0.15	0.15		U	ND		B		2.5	2.5
2,3,7,8-TCDF	0.1			U	ND		J	J	0.48	0.048	Q J	J	0.19	0.019	X		1.4	0.14
OCDD	0.0003		B	J	560	0.168	B	J	250	0.075	B	J	340	0.102	B	J	630	0.189
OCDF	0.0003		Q B J	U	ND		B J	J	7.6	0.00228	Q B J	U	ND		B		18	0.005
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.43***		**J**		***1.71***		**J**		***0.89***		**J**		***10.07***

Sample Location ID			PAD-5				PAD-6				PAD-7				PAD-8			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		14	0.14	B		25	0.25	B		18	0.18	B		8.5	0.085
1,2,3,4,6,7,8-HpCDF	0.01		Q B J	J	3.4	0.034	B J		4.6	0.046	BJ	J	4.6	0.046	B J	U	ND	
1,2,3,4,7,8,9-HpCDF	0.01		Q B J	U	ND		Q B J	U	ND		Q B J	U	ND		B J	U	ND	
1,2,3,4,7,8-HxCDD	0.1		Q B J	U	ND		Q B J	U	ND		Q B J	U	ND		B J		ND	
1,2,3,4,7,8-HxCDF	0.1		C B J	J	1	0.1	C B J	J	1.7	0.17	B J	J	1.6	0.16	Q B J	U	ND	
1,2,3,6,7,8-HxCDD	0.1		Q B J	J	0.83	0.083	Q B J	J	1.4	0.14	B J	J	1.2	0.12	Q B J	U	ND	
1,2,3,6,7,8-HxCDF	0.1		Q B J	U	ND		B J	J	0.94	0.094	B J	J	0.94	0.094	B J	U	ND	
1,2,3,7,8,9-HxCDD	0.1		Q B J	J	1.4	0.14	C B J	J	2	0.2	B J	J	1.7	0.17	B J	U	ND	
1,2,3,7,8,9-HxCDF	0.1		Q B J	U	ND		Q B J	U	ND		Q B J	U	ND		Q B J	U	ND	
1,2,3,7,8-PeCDD	1		J	J	0.56	0.56	Q J	J	0.83	0.83	Q J	J	0.57	0.57	Q J	J	0.33	0.33
1,2,3,7,8-PeCDF	0.03		B J	J	0.29	0.0087	Q B J	J	0.47	0.0141	Q B J	J	0.58	0.0174	Q B J	U	ND	
2,3,4,6,7,8-HxCDF	0.1		Q B J	U	ND		B J	J	0.96	0.096	Q B J	U	ND		B J	U	ND	
2,3,4,7,8-PeCDF	0.3		B Q J	U	ND		B J	J	1.1	0.33	Q B J	J	0.86	0.258	Q B J	U	ND	
2,3,7,8-TCDD	1		Q B J	J	0.26	0.26	Q B J	J	0.29	0.29		U	ND			U	ND	
2,3,7,8-TCDF	0.1		Q J	J	0.65	0.065	CON J	J	0.79	0.079	CON Q J	J	0.61	0.061	Q J	J	0.4	0.04
OCDD	0.0003		B	J	160	0.048	B	J	230	0.069	B	J	170	0.051	B	J	110	0.033
OCDF	0.0003		B J	U	ND		B J	U	ND		B J	J	9.5	0.00285	B J	U	ND	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***1.44***		**J**		***2.61***		**J**		***1.7***		**J**		***0.49***

JKF/KC
2/18/15

Table 3
Method 8290A Dioxin/Furan Results
July 31, 2014 Event

Sample Location ID			POND-1				SB-1				SB-2				PAD-XX (Blind Dup. - PAD-1)			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		28	0.28	B		39	0.39	B		64	0.64	B		7	0.07
1,2,3,4,6,7,8-HpCDF	0.01		Q B J		4.6	0.046	Q B J	J	4.6	0.046	B	J	9.2	0.092	B J	U	ND	
1,2,3,4,7,8,9-HpCDF	0.01		Q B J	U	ND		Q B J	U	ND		B J	U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		Q B J	J	0.77	0.077	Q B J	U	ND		B J	J	1.2	0.12	Q B J	U	ND	
1,2,3,4,7,8-HxCDF	0.1		C B J	J	1.2	0.12	Q B J	J	0.82	0.082	C B J	J	3.1	0.31	Q B J	U	ND	
1,2,3,6,7,8-HxCDD	0.1		B J	J	2	0.2	Q B J	J	1.1	0.11	B J	J	2.2	0.22	Q B J	U	ND	
1,2,3,6,7,8-HxCDF	0.1		Q B J	U	ND		Q BJ	U	ND		B J	J	1.6	0.16	Q B J	U	ND	
1,2,3,7,8,9-HxCDD	0.1		C B J	J	2.2	0.22	C B J	J	1.7	0.17	C B J	J	3.1	0.31	Q B J	U	ND	
1,2,3,7,8,9-HxCDF	0.1		Q B J	U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		Q J	J	0.78	0.78	Q J	J	0.52	0.52	Q J	J	1.3	1.3	Q J	J	0.35	0.35
1,2,3,7,8-PeCDF	0.03			U	ND		Q B J	J	0.28	0.0084	B J	J	1.1	0.033	Q B J	U	ND	
2,3,4,6,7,8-HxCDF	0.1		Q B J	U	ND		B J	U	ND		B J	J	1.4	0.14	Q B J	U	ND	
2,3,4,7,8-PeCDF	0.3		B J	U	ND		Q B J	U	ND		B J	J	1.8	0.54	Q B J	U	ND	
2,3,7,8-TCDD	1.0			U	ND			U	ND		Q B J	J	0.42	0.42		U	ND	
2,3,7,8-TCDF	0.1		CON Q J		0.65	0.065	Q J	J	0.42	0.042	CON	J	1.7	0.17	J	J	0.14	0.014
OCDD	0.0003		B	J	360	0.108	B	J	1500	0.45	B	J	2200	0.66	B	J	65	0.0195
OCDF	0.0003		B J		11	0.0033	Q B J	J	11	0.0033	J	J	18	0.0054	Q B J	U	ND	
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***1.90***		**J**		***1.82***		**J**		***5.12***		**J**		***0.45***

Sample Location ID			BERM-1				NB-1				NB-2			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		17	0.17	B		63	0.63	B		42	0.42
1,2,3,4,6,7,8-HpCDF	0.01		B J	J	3.4	0.034	Q B		15	0.15	B	J	7.8	0.078
1,2,3,4,7,8,9-HpCDF	0.01		B J	U	ND		Q B J	U	ND		Q B J	U	ND	
1,2,3,4,7,8-HxCDD	0.1		B J	U	ND		B J	J	1.3	0.13	Q B J	J	0.87	0.087
1,2,3,4,7,8-HxCDF	0.1		C B J	J	1.2	0.12	Q B J	J	4.8	0.48	C B J	J	1.8	0.18
1,2,3,6,7,8-HxCDD	0.1		B J	J	1.6	0.16	B J	J	3.2	0.32	B J	J	2	0.2
1,2,3,6,7,8-HxCDF	0.1		Q B J	U	ND		Q B J	J	2.5	0.25	Q B J	J	1.2	0.12
1,2,3,7,8,9-HxCDD	0.1		Q B J	J	1.8	0.18	C B J	J	4.2	0.42	C B J	J	2.8	0.28
1,2,3,7,8,9-HxCDF	0.1		Q B J	U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0		J	J	0.67	0.67	Q J	J	1.9	1.9	Q J	J	1.1	1.1
1,2,3,7,8-PeCDF	0.03		B J	J	0.45	0.0135	Q B J	J	2.2	0.066	B J	J	1.2	0.036
2,3,4,6,7,8-HxCDF	0.1		Q B J	U	ND		Q B J	J	1.8	0.18	B J	U	ND	
2,3,4,7,8-PeCDF	0.3		Q B J	U	ND		B J	J	2.8	0.84	B J	J	1.2	0.36
2,3,7,8-TCDD	1.0			U	ND		Q B J	J	0.47	0.47		U	ND	
2,3,7,8-TCDF	0.1		CON Q	J	1	0.1	CON Q		3.4	0.34	CON Q		1.9	0.19
OCDD	0.0003		B	J	180	0.054	B	J	560	0.168	B	J	410	0.123
OCDF	0.0003		B J	U	ND		B		34	0.0102	B		18	0.0054
2,3,7,8 Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***1.50***		**J**		***6.35***		**J**		***3.18***

Notes: Analytical Method: SW-846 8290A -TestAmerica Knoxville, Knoxville, TN. P:\B03\200\B03204\B03204-207\WORK\Table 3 - Dioxin-Furan TEF Table OBG 2014.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the EDL.

QL-Limit of Quantitation/sample specific QL. EDL-Laboratory Estimated Detection Limit See analytical results for sample specific QL. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U - denotes not detected at or above the EDL. See certificate of analysis for sample specific estimated detection limit.

JA - Denotes result positively identified, but result is estimated. J - Denotes result estimated. UJ - denotes analyte not detected above DL, EDL/QL estimated due to validation.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated. X See project narrative. S denotes ion suppression.

J Denotes result reported below QL. Q Denotes the estimated maximum possible concentration. B Denotes method blank contamination (see data validation report). C denotes co-eluting isomer.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis.

Source for Action Level: United States Environmental Protection Agency Regions 3, 6, and 9. (Nov 2013). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm Action Level updated June 12, 2014.

OKR/KC 2/18/15

Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	27000	8330B	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330B	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
8/13/2015	U		U		U		U		U		U		U		U		U		U		2.5		0.25	79	8330B	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
8/13/2015	U		U		U		0.205	J	U		0.313		U		U		U		U		2.34		0.25	5.5	8330B	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	1.2	8330B	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
8/13/2015	U	J	0.14	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	0.25	2000	8330B	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	13	8330B	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
8/13/2015	U	JA	U	JA	U	JA	U	JA	U	JA	U	JA	U	JA	U	JA	-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 108-39-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	31000	8270D	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	62	8330B	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
8/13/2015	U		0.145	J	U		U		U		U		U		U		U		U		U		0.25	1900	8330B	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	62000	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	110	8330B	mg/kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
8/13/2015	1.5		2.7		1.9		2.4		2.2		1.7		1.8		1.6		2.1		3		3.2		1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
8/13/2015	170		120		82		79		76		82		92		190		64		100		130		20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
8/13/2015	U		U		U		0.005	J	U		U		U		U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
8/13/2015	U	J	U	J	U		0.008	J	U	J	0.039	J	0.006	J	U		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
8/13/2015	U	J	0.008	J	U		0.014	J	0.009	J	0.07	J	0.011	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
8/13/2015	U	J	0.004	J	U		0.012	J	0.01	J	0.027	J	U	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
8/13/2015	0.091	J	0.082	J	U		0.084	J	U		U		U		U		U		U		0.45		0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
8/13/2015	U		U		U		U		U		U		U		U		U		U		U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
8/13/2015	U	J	U		U		U		U		U		U		U		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
8/13/2015	0.082	J	0.35	J	U		0.18	J	0.11	J	0.19	J	0.11	J	0.037	J	0.11	J	0.23	J	0.4	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
8/13/2015	U		0.31	J	0.55	J	U		U		2.2		U		0.56	J	-		-		-		1	5.6	7196A	mg/Kg

See last page of this report for definitions.

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Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	PAD-1	Q	PAD-2	Q	PAD-3	Q	PAD-4	Q	PAD-5	Q	PAD-6	Q	PAD-7	Q	PAD-8	Q	POND-1	Q	SB-1	Q	SB-2	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
8/13/2015	11	J	20	J	15	J	13	J	12	J	59	J	12	J	25	J	15	J	18	J	23	J	1		6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
8/13/2015	U		U	J	U		0.009	J	U	J	U	J	U	J	U		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
8/13/2015	0.094	J	0.1	J	U		0.25		0.27		4.1		0.78		U		0.42		U		0.27		0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
8/13/2015	U		U		U		U		U		U		U		U		U		U		U		0.33	10000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
8/13/2015	1	J	0.28	J	U	J	1.8	J	0.99	J	16	J	0.53	J	2.5	J	0.076	J	U	J	0.24	J	0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
8/13/2015	U	J	0.004	J	U	J	0.01	J	0.005	J	0.023	J	U	J	U	J	-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	43	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
8/13/2015	U		U		U		0.129	J	U		U		U		U		U		U		U		2.2	49000	8330B	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
8/13/2015	U	J	U	J	U		0.01	J	U	J	0.031	J	0.009	J	U		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
8/13/2015	54	J	220	J	8.8	J	120	J	120	J	620	J	97	J	110	J	70	J	73	J	150	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
8/13/2015	U		0.027	J	0.033	J	U		0.029	J	0.038	J	0.018	J	U		-		-		-		0.1	43	7471A	mg/Kg
Methylene Chloride					*CAS #: 75-09-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	960	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
8/13/2015	U		U		U		0.02		0.008	J	U		0.007	J	0.004	J	-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.25	24	8330B	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
8/13/2015	13		8.05		U		53.2		57.6		48.5		10.2		0.549		5.26		U		2.78		2.5	62	8330B	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
8/13/2015	0.13	J	0.077	J	U		0.33		0.16	J	0.75	J	0.27		0.18		0.089	J	U		U		1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
8/13/2015	U		U		U		U		U		0.00256		U		U		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.33	180000	8270D	mg/kg

See last page of this report for definitions.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Table 2A - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*PAD-1*	*Q*	*PAD-2*	*Q*	*PAD-3*	*Q*	*PAD-4*	*Q*	*PAD-5*	*Q*	*PAD-6*	*Q*	*PAD-7*	*Q*	*PAD-8*	*Q*	*POND-1*	*Q*	*SB-1*	*Q*	*SB-2*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		1	24	8330B	mg/kg
Selenium					*CAS #: 7782-49-2*																					
8/13/2015	U		U		U		U		U		U		U		U		U		0.4	J	0.5	J	1	5100	6010C	mg/kg
Silver					*CAS #: 7440-22-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	110	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
8/13/2015	U	J	U	J	U	J	U	J	U	J	U	J	U	J	U	J	-		-		-		0.65	1200	8330B	mg/kg
Toluene					*CAS #: 108-88-3*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
8/13/2015	14	J	-		-		19		-		-		11	J	-		-		-		-		20	11000	8015C	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
8/13/2015	U		U		U		U		U		U		U		U		U		U		U		0.005	6.4	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
8/13/2015	U		U		U		U		U		U		U		U		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification updated June 2014). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. However, RLs, QLs and method detection limit (DL) are less than the AL except where noted with an "A" qualifier. See data validation for actual laboratory QL. **Q** Denotes data validation qualifie
U Denotes analyte not detected at or above DL. **AL** Denotes permit Action limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated September 27, 2011, Class 3 permit modification, updated June 2014).
J Denotes is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled.
NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
For the April 2013 event, Method 8270D aliquots for POND-1 were recollected on September 10, 2013.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
1,1-Dichloroethene					*CAS #: 75-35-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	1100	8260C	mg/kg
1,2-Dichloroethane					*CAS #: 107-06-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	2.2	8260C	mg/kg
1,3,5-Trinitrobenzene					*CAS #: 99-35-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	27000	8330B	mg/kg
1,3-Dinitrobenzene					*CAS #: 99-65-0*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330B	mg/kg
2,4,6-Trinitrotoluene					*CAS #: 118-96-7*																					
8/13/2015	-		-		-		-		-		-		-		-		U		U		U		0.25	79	8330B	mg/kg
2,4-Dichlorophenol					*CAS #: 120-83-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	1800	8270D	mg/kg
2,4-Dinitrotoluene					*CAS #: 121-14-2*																					
8/13/2015	-		-		-		-		-		-		-		-		0.125	J	2.07		U		0.25	5.5	8330B	mg/kg
2,6-Dinitrotoluene					*CAS #: 606-20-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	1.2	8330B	mg/kg
2-Amino-4,6-Dinitrotoluene					*CAS #: 35572-78-2*																					
8/13/2015	-		-		-		-		-		-		-		-		U	J	U	J	U	J	0.25	2000	8330B	mg/kg
2-Chlorophenol					*CAS #: 95-57-8*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	5100	8270D	mg/kg
2-Nitrotoluene					*CAS #: 88-72-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	13	8330B	mg/kg
3,3'-Dimethylbenzidine					*CAS #: 119-93-7*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		1.6	0.16	8270D	mg/kg
3-Methylphenol					*CAS #: 108-39-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	31000	8270D	mg/kg
3-Nitrotoluene					*CAS #: 99-08-1*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	62	8330B	mg/kg
4-Amino-2,6-Dinitrotoluene					*CAS #: 19406-51-0*																					
8/13/2015	-		-		-		-		-		-		-		-		U		U		U		0.25	1900	8330B	mg/kg
4-Methylphenol					*CAS #: 106-44-5*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	62000	8270D	mg/kg
4-Nitrophenol					*CAS #: 100-02-7*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		1.6	7	8270D	mg/kg
4-Nitrotoluene					*CAS #: 99-99-0*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	110	8330B	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Acetophenone					*CAS #: 98-86-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	100000	8270D	mg/kg
Arsenic					*CAS #: 7440-38-2*																					
8/13/2015	-		-		-		-		-		-		-		-		1.9		1.6		1.8		1	15.8	6010C	mg/kg
Barium					*CAS #: 7440-39-3*																					
8/13/2015	-		-		-		-		-		-		-		-		110		91		79		20	190000	6010C	mg/kg
Benzene					*CAS #: 71-43-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	5.4	8260C	mg/kg
Benzo(a)anthracene					*CAS #: 56-55-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(a)pyrene					*CAS #: 50-32-8*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Benzo(b)fluoranthene					*CAS #: 205-99-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzo(k)fluoranthene					*CAS #: 207-08-9*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Benzyl Chloride					*CAS #: 100-44-7*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	4.9	8260C	mg/kg
bis(2-Ethylhexyl) phthalate					*CAS #: 117-81-7*																					
8/13/2015	-		-		-		-		-		-		-		-		0.91		0.21	J	0.1	J	0.33	120	8270D	mg/kg
Bromomethane					*CAS #: 74-83-9*																					
8/13/2015	-		-		-		-		-		-		-		-		U		0.003	J	U		0.005	32	8260C	mg/kg
Butyl benzyl phthalate					*CAS #: 85-68-7*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	910	8270D	mg/kg
Cadmium					*CAS #: 7440-43-9*																					
8/13/2015	-		-		-		-		-		-		-		-		0.3	J	0.17	J	0.11	J	0.5	800	6010C	mg/kg
Carbon Tetrachloride					*CAS #: 56-23-5*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	3	8260C	mg/kg
Chlorobenzene					*CAS #: 108-90-7*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	1400	8260C	mg/kg
Chloroform					*CAS #: 67-66-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	1.5	8260C	mg/kg
Chloromethane					*CAS #: 74-87-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	500	8260C	mg/kg
Chromium, hexavalent					*CAS #: 18540-29-9*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		1	5.6	7196A	mg/Kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	BG-1A	Q	BG-1B	Q	BG-1C	Q	BG-1D	Q	BG-2A	Q	BG-2B	Q	BG-2C	Q	BG-2D	Q	NB-1	Q	NB-2	Q	BERM-1	Q	RL	Action Limit	Method	Unit
Chromium					*CAS #: 7440-47-3*																					
8/13/2015	-		-		-		-		-		-		-		-		14	J	12	J	13	J	1		6010C	mg/kg
Dibenz(a,h)anthracene					*CAS #: 53-70-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.02	0.21	8270D	mg/kg
Diethyl phthalate					*CAS #: 84-66-2*																					
8/13/2015	-		-		-		-		-		-		-		-		1.4		0.54		0.15	J	0.33	490000	8270D	mg/kg
Dimethyl phthalate					*CAS #: 131-11-3*																					
8/13/2015	-		-		-		-		-		-		-		-		2.6		1.2		U		0.33	10000000	8270D	mg/kg
Di-n-butyl phthalate					*CAS #: 84-74-2*																					
8/13/2015	-		-		-		-		-		-		-		-		0.91	J	0.25	J	0.38	J	0.33	62000	8270D	mg/kg
Fluoranthene					*CAS #: 206-44-0*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	22000	8270D	mg/kg
Hexachloroethane					*CAS #: 67-72-1*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	43	8270D	mg/kg
HMX					*CAS #: 2691-41-0*																					
8/13/2015	-		-		-		-		-		-		-		-		0.386		U		U		2.2	49000	8330B	mg/kg
Indeno(1,2,3-cd)pyrene					*CAS #: 193-39-5*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	2.1	8270D	mg/kg
Lead					*CAS #: 7439-92-1*																					
8/13/2015	-		-		-		-		-		-		-		-		210	J	180	J	160	J	0.3	800	6010C	mg/kg
Mercury					*CAS #: 7439-97-6*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.1	43	7471A	mg/Kg
Methylene Chloride					*CAS #: 75-09-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	960	8260C	mg/kg
Naphthalene					*CAS #: 91-20-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	18	8270D	mg/kg
Nitrobenzene					*CAS #: 98-95-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.25	24	8330B	mg/kg
Nitroglycerin					*CAS #: 55-63-0*																					
8/13/2015	-		-		-		-		-		-		-		-		3.87		56.2		10.6		2.5	62	8330B	mg/kg
Diphenylamine					*CAS #: 122-39-4*																					
8/13/2015	-		-		-		-		-		-		-		-		0.18	J	0.048	J	0.51		1.6	15000	8270D	mg/kg
Perchlorate					*CAS #: 14797-73-0*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.002	720	6850	mg/kg
Phenol					*CAS #: 108-95-2*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.33	180000	8270D	mg/kg

See last page of this report for definitions.

Table 2B - Summary of Analytical Results
Radford Army Ammunition Plant - Open Burning Ground - Soil Monitoring Program

All Results Reported on a Dry Weight Basis

Event Date	*BG-1A*	*Q*	*BG-1B*	*Q*	*BG-1C*	*Q*	*BG-1D*	*Q*	*BG-2A*	*Q*	*BG-2B*	*Q*	*BG-2C*	*Q*	*BG-2D*	*Q*	*NB-1*	*Q*	*NB-2*	*Q*	*BERM-1*	*Q*	*RL*	*Action Limit*	*Method*	*Unit*
RDX					*CAS #: 121-82-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		1	24	8330B	mg/kg
Selenium					*CAS #: 7782-49-2*																					
8/13/2015	-		-		-		-		-		-		-		-		0.44	J	U		0.38	J	1	5100	6010C	mg/kg
Silver					*CAS #: 7440-22-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		1	5100	6010C	mg/kg
Tetrachloroethene					*CAS #: 127-18-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	110	8260C	mg/kg
Tetryl					*CAS #: 479-45-8*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.65	1200	8330B	mg/kg
Toluene					*CAS #: 108-88-3*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	45000	8260C	mg/kg
TPH (as Diesel)					*CAS #: Q797*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		20	11000	8015C	mg/kg
Trichloroethene					*CAS #: 79-01-6*																					
8/13/2015	-		-		-		-		-		-		-		-		U		U		U		0.005	6.4	8260C	mg/kg
Vinyl Chloride					*CAS #: 75-01-4*																					
8/13/2015	-		-		-		-		-		-		-		-		-		-		-		0.005	1.7	8260C	mg/kg

Definitions: RL Denotes reporting limit. **Q** Denotes data validation qualifier. **U** Denotes analyte not detected at or above DL. AL Denotes permit Action limit.
J Denotes result is estimated. **UJ** Denotes analyte was analyzed for but not detected at or above the DL and estimated due to data validation.
A Denotes laboratory QL and laboratory DL above permit Action limit (see data validation report).
R Denotes result rejected. (-) Denotes not sampled. **AL and RL** obtained from permit modification – Table 1 Attachment II.C-23-24, updated June 2014, Class I Permit Mod

NOTES:
Results for Method 8290 Dioxin/Furan submitted as a separate report.
Laboratory QL at or below the RL and AL unless noted (see data validation report). In these cases, the result is evaluated to the method detection limit (MDL/DL). MDL is less than the RL and AL unless noted.

Table 3
Summary of Method 8290A Dioxin/Furan Results
August 13, 2015 - Annual Open Burning Ground (OBG) Soil Monitoring Program
Calcuation of 2,3,7,8 - TCDD Toxicity Equivalent Quotient (TEQ)
Radford Army Ammunition Plant (RFAAP), Radford, Virginia
All results presented in ng/kg=pg/g=ppt

Sample Location ID			PAD-1				PAD-2				PAD-3				PAD-4			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		11	0.11	B		55	0.55	B		14	0.14	B		41	0.41
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	ND		BJ	U	ND		QBJ	U	ND		B		6.5	0.065
1,2,3,4,7,8,9-HpCDF	0.01		QBJ	U	ND		QBJ	U	ND			U	ND		QBJ	U	ND	
1,2,3,4,7,8-HxCDD	0.1		QBJ	U	ND		BJ	U	ND			U	ND		BJ	U	ND	
1,2,3,4,7,8-HxCDF	0.1		CBJ	U	ND		CBJ	U	ND		QBJ	U	ND		CBJ	U	ND	
1,2,3,6,7,8-HxCDD	0.1		BJ	U	ND		BJ	U	ND		QBJ	U	ND		QBJ	U	ND	
1,2,3,6,7,8-HxCDF	0.1		QBJ	U	ND		BJ	U	ND		QBJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDD	0.1		QBJ	U	ND		CB	J	6.9	0.69	BJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDF	0.1			U	ND		BJ	U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		QJ	J	0.25	0.25	QJ	J	1.5	1.5		U	ND		QJ	J	1.1	1.1
1,2,3,7,8-PeCDF	0.03			U	ND		QJ	J	0.66	0.0198		U	ND		QJ	J	0.42	0.0126
2,3,4,6,7,8-HxCDF	0.1		QJ	J	0.2	0.02	QJ	J	0.49	0.049	QJ	J	0.11	0.011	QJ	J	0.56	0.056
2,3,4,7,8-PeCDF	0.3		QJ	J	0.25	0.075	J	J	0.67	0.201		U	ND		QJ	J	0.66	0.198
2,3,7,8-TCDD	1			U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		QJ	J	0.76	0.076	J	J	0.85	0.085	QJ	J	0.067	0.0067	JX	J	1	0.1
OCDD	0.0003		B		110	0.033	B		510	0.153	B		1300	0.39	B		410	0.123
OCDF	0.0003		QBJ		ND		B		13	0.0039	QBJ	J	ND		B		13	0.004
2,3,7,8-TCDD Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.56***		**J**		***3.25***		**J**		***0.55***		**J**		***2.07***

Sample Location ID			PAD-5				PAD-6				PAD-7				PAD-8			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		12	0.12	B		38	0.38	B		19	0.19	B		5.5	0.055
1,2,3,4,6,7,8-HpCDF	0.01		QBJ	U	ND		BJ	U	ND		BJ	U	ND		BJ	U	ND	
1,2,3,4,7,8,9-HpCDF	0.01			U	ND		BJ	U	ND		BJ	U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		BJ	U	ND		BJ	U	ND		BJ	U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		CBJ	U	ND		CBJ	U	ND		CBJ	U	ND		QBJ	U	ND	
1,2,3,6,7,8-HxCDD	0.1		QBJ	U	ND		BJ	U	ND		QBJ	U	ND		QBJ	U	ND	
1,2,3,6,7,8-HxCDF	0.1		QBJ	U	ND		QBJ	U	ND		QBJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDD	0.1		CBJ	U	ND		BJ	U	ND		QBJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1		J	J	0.24	0.24	QJ	J	1.1	1.1	J	J	0.44	0.44		U	ND	
1,2,3,7,8-PeCDF	0.03		J	J	0.25	0.0075	J	J	0.5	0.015	QJ	J	0.42	0.0126		U	ND	
2,3,4,6,7,8-HxCDF	0.1		J	J	0.42	0.042	J	J	0.46	0.046	QJ	J	0.53	0.053	QJ	J	0.24	0.024
2,3,4,7,8-PeCDF	0.3		QJ	J	0.44	0.132	QJ	J	0.64	0.192	QJ	J	0.75	0.225	QJ	J	0.3	0.09
2,3,7,8-TCDD	1			U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		J	J	0.5	0.05	J	J	0.96	0.096	QJ	J	0.45	0.045	J	J	0.2	0.02
OCDD	0.0003		B		130	0.039	B		340	0.102	B		180	0.054	B		82	0.0246
OCDF	0.0003		BJ	J	ND		B		13	0.0039	BQJ	J	ND		QBJ	U	ND	
2,3,7,8-TCDD Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.63***		**J**		***1.93***		**J**		***1.0***		**J**		***0.21***

Sample Location ID			POND-1				SB-1				SB-2				PAD-XX (Blind Dup. - PAD-1)			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		15	0.15	B		37	0.37	B		61	0.61	B		8.4	0.084
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	ND		BJ	U	ND		B		15	0.15	BJ	U	ND	
1,2,3,4,7,8,9-HpCDF	0.01		BJ	U	ND			U	ND		BJ	U	ND			U	ND	
1,2,3,4,7,8-HxCDD	0.1		QBJ	U	ND			U	ND		QBJ	U	ND			U	ND	
1,2,3,4,7,8-HxCDF	0.1		CBJ	U	ND			U	ND		CB	J	9.8	0.98	QBJ	U	ND	
1,2,3,6,7,8-HxCDD	0.1		QBJ	U	ND		QBJ	U	ND		BJ	U	ND		BJ	U	ND	
1,2,3,6,7,8-HxCDF	0.1		BJ	U	ND		QBJ	U	ND		BJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDD	0.1		CBJ	U	ND		BJ	U	ND		CBJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND		QBJ	U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0			U	ND			U	ND		J	J	1.1	1.1	J	J	0.23	0.23
1,2,3,7,8-PeCDF	0.03			U	ND			U	ND		J	J	2.6	0.078		U	ND	
2,3,4,6,7,8-HxCDF	0.1		QJ	J	0.4	0.04		U	ND		QJ	J	3.1	0.31		U	ND	
2,3,4,7,8-PeCDF	0.3			U	ND			U	ND		J	J	5	1.5		U	ND	
2,3,7,8-TCDD	1.0			U	ND			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		QJ	J	0.93	0.093		U	ND				3	0.3	J	J	0.45	0.045
OCDD	0.0003		B		170	0.051	B		1400	0.42	B		1600	0.48	B		65	0.0195
OCDF	0.0003		BJ	J	ND		BJ	U	ND		B		25	0.0075	QBJ	J	ND	
2,3,7,8-TCDD Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.33***		**J**		***0.79***		**J**		***5.52***		**J**		***0.38***

Sample Location ID			BERM-1				NB-1				NB-2			
Depth			Lab	Val	0-6 inches		Lab	Val	0-6 inches		Lab	Val	0-6 inches	
Constituent	TEF	Action Level	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ	Flag	Flag	Result	TEQ
1,2,3,4,6,7,8-HpCDD	0.01		B		22	0.22	B		59	0.59	B		34	0.34
1,2,3,4,6,7,8-HpCDF	0.01		BJ	U	ND		B		13	0.13	BJ	U	ND	
1,2,3,4,7,8,9-HpCDF	0.01		QBJ	U	ND		BJ	U	ND		QBJ	U	ND	
1,2,3,4,7,8-HxCDD	0.1		BJ	U	ND		QBJ	U	ND		BJ	U	ND	
1,2,3,4,7,8-HxCDF	0.1		QBJ	U	ND		CBJ	U	ND		CBJ	U	ND	
1,2,3,6,7,8-HxCDD	0.1		BJ	U	ND		BJ	U	ND		BJ	U	ND	
1,2,3,6,7,8-HxCDF	0.1		QBJ	U	ND		QBJ	U	ND		QBJ	U	ND	
1,2,3,7,8,9-HxCDD	0.1		CBJ	U	ND		BJ	U	ND		CBJ	U	ND	
1,2,3,7,8,9-HxCDF	0.1			U	ND			U	ND			U	ND	
1,2,3,7,8-PeCDD	1.0			U	ND		QJ	J	1.6	1.6	QJ	J	0.71	0.71
1,2,3,7,8-PeCDF	0.03			U	ND		J	J	1.3	0.039	QJ	J	0.56	0.0168
2,3,4,6,7,8-HxCDF	0.1		QJ	J	0.31	0.031	J	J	1.1	0.11	J	J	0.61	0.061
2,3,4,7,8-PeCDF	0.3			U	ND		J	J	1.8	0.54	QJ	J	0.75	0.225
2,3,7,8-TCDD	1.0			U	ND			U	ND			U	ND	
2,3,7,8-TCDF	0.1		QJ	J	1	0.1			2.3	0.23	QJ	J	1.2	0.12
OCDD	0.0003		B		210	0.063	B		570	0.171	B		370	0.111
OCDF	0.0003		BJ	U	ND		B		31	0.0093	BJ	U	ND	
2,3,7,8-TCDD Toxicity Equivalence (TEQ) ng/kg		**18 ng/kg**		**J**		***0.41***		**J**		***3.42***		**J**		***1.58***

Notes: Analytical Method: SW-846 8290A -TestAmerica Knoxville, Knoxville, TN. P:\B03\200\B03204\B03204-215\WORK\Table 3 - Dioxin-Furan TEF Table OBG 2015.xls

TEF Denotes USEPA Region 3 Toxicity Equivalence Factor based on WHO June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm).

2,3,7,8 - TCDD Toxicity Equivalence Quotient (TEQ) ng/kg. Calculated by summing the multiplication of detections by the respective TEF of results above the EDL.

QL-Limit of Quantitation/sample specific QL. EDL-Laboratory Estimated Detection Limit See analytical results for sample specific QL. PAD-XX is a blind duplicate for PAD-1.

Data Validation Qualifiers: "Val Flag" denotes data validation data qualifier.

U - denotes not detected at or above the EDL. See certificate of analysis for sample specific estimated detection limit.

JA - Denotes result positively identified, but result is estimated. J - Denotes result estimated. UJ - denotes analyte not detected above DL, EDL/QL estimated due to validation.

Laboratory Data Qualifiers: "Lab Flag" denotes Laboratory data qualifier.

ND denotes analyte not detected above estimated detection limit and constituent specific TEQ was not calculated. X See project narrative. S denotes ion suppression.

J Denotes result reported below QL. Q Denotes the estimated maximum possible concentration. B Denotes method blank contamination (see data validation report). C denotes co-eluting isomer.

CON denotes confirmation analysis. H denotes OCDD/F reported from separate analytical analysis.

Source for Action Level: United States Environmental Protection Agency. Risk-Based Screening Table. http://www.epa.gov/risk/regional-screening-table. Action Level updated June 12, 2014.

jcf 02-09-2016

APPENDIX F

LABORATORY CERTIFICATES OF ANALYSIS AND DATA VALIDATION REPORTS

This report is presented in an electronic version and as a bound hard copy version.

Electronic Version: Depending upon the file size (limited to 50 MB per file), this Attachment/Appendix may be presented in a separate Portable Document Format (PDF) file associated with this report.

Hardcopy Version: This Attachment/Appendix is only provided in PDF on the enclosed compact disc (CD-ROM).

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
1,1-Dichloroethene											
PAD-3	0.001	U	U		0.005	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.001	U	U		0.006	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
1,2-Dichloroethane											
PAD-4	0.001	U	U		0.006	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-8	0.001	U	U		0.005	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
1,3,5-Trinitrobenzene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0995	J	0.0995	J	0.245	0.0978	0.25	27000	8330B	mg/kg	Result < QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
1,3-Dinitrobenzene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
2,4,6-Trinitrotoluene											
SB-2	0.96		0.96		0.249	0.0997	0.25	79	8330B	mg/kg	No action taken.
PAD-2	0.836		0.836		0.242	0.097	0.25	79	8330B	mg/kg	No action taken.
PAD-6	0.664		0.664		0.246	0.0984	0.25	79	8330B	mg/kg	No action taken.
PAD-4	0.495		0.495		0.245	0.0978	0.25	79	8330B	mg/kg	No action taken.
BERM-1	0.413		0.413		0.247	0.0988	0.25	79	8330B	mg/kg	No action taken.
POND-1	0.277		0.277		0.249	0.0995	0.25	79	8330B	mg/kg	No action taken.
PAD-X	0.249	U	U		0.249	0.0995	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.245	U	U		0.245	0.0978	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.245	U	U		0.245	0.098	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.24	U	U		0.24	0.0962	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.201	J	0.201	J	0.243	0.0971	0.25	79	8330B	mg/kg	Result < QL.
PAD-1	0.109	J	0.109	J	0.243	0.0974	0.25	79	8330B	mg/kg	Result < QL.
2,4-Dichlorophenol											
PAD-6	0.18	U	U		0.35	0.18	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.021	U	U		0.041	0.021	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.019	U	U		0.037	0.019	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.017	U	U		0.034	0.017	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.017	U	U		0.034	0.017	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.017	U	U		0.034	0.017	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.017	U	U		0.034	0.017	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.017	U	U		0.034	0.017	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
2,4-Dinitrotoluene											
PAD-6	1.74		1.74	J	0.246	0.0984	0.25	5.5	8330B	mg/kg	MS recovered high (196%).
BERM-1	0.505		0.505		0.247	0.0988	0.25	5.5	8330B	mg/kg	No action taken.
SB-2	0.49		0.49		0.249	0.0997	0.25	5.5	8330B	mg/kg	No action taken.
PAD-X	0.249	U	U		0.249	0.0995	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
POND-1	0.249	U	U		0.249	0.0995	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.245	U	U		0.245	0.098	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.243	U	U		0.243	0.0971	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.24	U	U		0.24	0.0962	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.213	J	0.213	J	0.245	0.0978	0.25	5.5	8330B	mg/kg	Result < QL. MS recovered high (196%).
PAD-5	0.205	J	0.205	J	0.242	0.0968	0.25	5.5	8330B	mg/kg	Result < QL. MS recovered high (196%).
PAD-2	0.18	J	0.18	J	0.242	0.097	0.25	5.5	8330B	mg/kg	Result < QL. MS recovered high (196%).
2,6-Dinitrotoluene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.104	J	0.104	J	0.245	0.0978	0.25	1.2	8330B	mg/kg	Result < QL. MS recovered high (131%).

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
2-Amino-4,6-Dinitrotoluene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
POND-1	0.249	U	U		0.249	0.0995	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.247	U	U		0.247	0.0988	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.246	U	U		0.246	0.0984	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.245	U	U		0.245	0.098	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.243	U	U		0.243	0.0971	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.24	U	U		0.24	0.0962	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.226	J	0.226	J	0.249	0.0997	0.25	2000	8330B	mg/kg	Result < QL.
2-Chlorophenol											
PAD-6	0.18	U	U		0.35	0.18	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.021	U	U		0.041	0.021	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.019	U	U		0.037	0.019	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.017	U	U		0.034	0.017	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.017	U	U		0.034	0.017	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.017	U	U		0.034	0.017	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.017	U	U		0.034	0.017	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
2-Nitrotoluene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.13	J	0.13	J	0.242	0.097	0.25	13	8330B	mg/kg	Result < QL.

SEE LAST PAGE FOR DATA QUALIFIER DEFINITIONS.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
3,3'-Dimethylbenzidine											
PAD-6	5.3	U	U	AJ	11	5.3	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.62	U	U	AJ	1.2	0.62	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-3	0.56	U	U	AJ	1.1	0.56	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-2	0.53	U	U	AJ	1.1	0.53	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-7	0.52	U	U	AJ	1	0.52	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-8	0.51	U	U	AJ	1	0.51	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-5	0.51	U	U	AJ	1	0.51	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-X	0.51	U	U	AJ	1	0.51	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover. Field duplicate for PAD-7.
PAD-1	0.5	U	U	AJ	1	0.5	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
3-Methylphenol											
PAD-6	0.18	U	U		0.35	0.18	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-4	0.021	U	U		0.041	0.021	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-3	0.019	U	U		0.037	0.019	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-2	0.018	U	U		0.036	0.018	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-7	0.017	U	U		0.034	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-X	0.017	U	U		0.034	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds. Field duplicate for PAD-7.
PAD-1	0.017	U	U		0.034	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-5	0.017	U	U		0.034	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-8	0.017	U	U		0.034	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
3-Nitrotoluene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
4-Amino-2,6-Dinitrotoluene											
PAD-2	0.381		0.381		0.242	0.097	0.25	1900	8330B	mg/kg	MS recovered high (129%).
PAD-X	0.249	U	U		0.249	0.0995	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
POND-1	0.249	U	U		0.249	0.0995	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.249	U	U		0.249	0.0997	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.245	U	U		0.245	0.098	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.243	U	U		0.243	0.0971	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.24	U	U		0.24	0.0962	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.114	J	0.114	J	0.246	0.0984	0.25	1900	8330B	mg/kg	Result < QL. MS recovered high (129%).
BERM-1	0.111	J	0.111	J	0.247	0.0988	0.25	1900	8330B	mg/kg	Result < QL.
4-Methylphenol											
PAD-6	0.18	U	U		0.35	0.18	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.021	U	U		0.041	0.021	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.019	U	U		0.037	0.019	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.017	U	U		0.034	0.017	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.017	U	U		0.034	0.017	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.017	U	U		0.034	0.017	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.017	U	U		0.034	0.017	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.

SEE LAST PAGE FOR DATA QUALIFIER DEFINITIONS.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
4-Nitrophenol											
PAD-6	1.8	U	U		5.3	1.8	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.21	U	U		0.62	0.21	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.19	U	U		0.56	0.19	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.18	U	U		0.53	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.17	U	U		0.51	0.17	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.17	U	U		0.52	0.17	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.17	U	U		0.5	0.17	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.17	U	U		0.51	0.17	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.17	U	U		0.51	0.17	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
4-Nitrotoluene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.1	J	0.1	J	0.242	0.097	0.25	110	8330B	mg/kg	Result < QL. MSD recovered high (136%).
Acetophenone											
PAD-6	0.18	U	U		0.35	0.18	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.021	U	U		0.041	0.021	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.019	U	U		0.037	0.019	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.017	U	U		0.034	0.017	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.017	U	U		0.034	0.017	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.017	U	U		0.034	0.017	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.017	U	U		0.034	0.017	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Arsenic											
SB-1	3.2		3.2		1.9	0.51	1	15.8	6010C	mg/kg	No action taken.
SB-2	3.1		3.1		1.6	0.43	1	15.8	6010C	mg/kg	No action taken.
PAD-2	3		3		1.4	0.37	1	15.8	6010C	mg/kg	No action taken.
PAD-4	2.7		2.7		1.5	0.4	1	15.8	6010C	mg/kg	No action taken.
BERM-1	2.6		2.6		1.3	0.36	1	15.8	6010C	mg/kg	No action taken.
NB-1	2.4		2.4		1.7	0.47	1	15.8	6010C	mg/kg	No action taken.
PAD-8	2.3		2.3		1.4	0.37	1	15.8	6010C	mg/kg	No action taken.
PAD-3	2.2		2.2		1.6	0.44	1	15.8	6010C	mg/kg	No action taken.
PAD-5	2.2		2.2		1.3	0.37	1	15.8	6010C	mg/kg	No action taken.
PAD-1	2.1		2.1		1.3	0.37	1	15.8	6010C	mg/kg	No action taken.
PAD-7	2		2		1.3	0.36	1	15.8	6010C	mg/kg	No action taken.
POND-1	1.8		1.8		1.4	0.4	1	15.8	6010C	mg/kg	No action taken.
PAD-6	1.7		1.7		1.6	0.43	1	15.8	6010C	mg/kg	No action taken.
PAD-X	1.5		1.5		1.3	0.36	1	15.8	6010C	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 28.5
NB-2	1.2	J	1.2	J	1.5	0.41	1	15.8	6010C	mg/kg	Result < QL.
Barium											
POND-1	420		420		19	0.4	20	190000	6010C	mg/kg	No action taken.
PAD-1	140		140		18	0.37	20	190000	6010C	mg/kg	No action taken.
NB-1	120		120		23	0.47	20	190000	6010C	mg/kg	No action taken.
SB-2	110		110		21	0.43	20	190000	6010C	mg/kg	No action taken.
PAD-2	110		110		18	0.37	20	190000	6010C	mg/kg	No action taken.
SB-1	100		100		25	0.51	20	190000	6010C	mg/kg	No action taken.
BERM-1	100		100		17	0.36	20	190000	6010C	mg/kg	No action taken.
PAD-X	97		97		17	0.36	20	190000	6010C	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 1
PAD-7	96		96		18	0.36	20	190000	6010C	mg/kg	No action taken.
PAD-5	87		87		18	0.37	20	190000	6010C	mg/kg	No action taken.
PAD-4	84		84		20	0.4	20	190000	6010C	mg/kg	No action taken.
PAD-8	77		77		18	0.37	20	190000	6010C	mg/kg	No action taken.
PAD-3	76		76		22	0.44	20	190000	6010C	mg/kg	No action taken.
NB-2	63		63		20	0.41	20	190000	6010C	mg/kg	No action taken.
PAD-6	51		51		21	0.43	20	190000	6010C	mg/kg	No action taken.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Benzene											
PAD-2	0.001	J	0.001	J	0.005	0.0005	0.005	5.4	8260C	mg/kg	Result < QL.
PAD-5	0.001	J	0.001	J	0.004	0.0004	0.005	5.4	8260C	mg/kg	Result < QL.
PAD-4	0.001	J	0.001	J	0.006	0.0006	0.005	5.4	8260C	mg/kg	Result < QL.
PAD-X	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0005	U	U	J	0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-3	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Benzo(a)anthracene											
PAD-5	0.064		0.064		0.017	0.003	0.33	2.1	8270D	mg/kg	No action taken.
PAD-6	0.035	U	U		0.18	0.035	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.007	J	0.007	J	0.021	0.004	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-3	0.004	U	U		0.019	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.004	J	0.004	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-8	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.003	U	U		0.018	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Benzo(a)pyrene											
PAD-5	0.073		0.073	J	0.017	0.003	0.02	0.21	8270D	mg/kg	The internal standard (IS) area was outside control limits. Result estimated.
PAD-6	0.035	U	U	J	0.18	0.035	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.015	J	0.015	J	0.021	0.004	0.02	0.21	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-1	0.004	J	0.004	J	0.017	0.003	0.02	0.21	8270D	mg/kg	Result < QL.
PAD-2	0.004	J	0.004	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Result < QL.
PAD-3	0.004	U	U		0.019	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.003	U	U		0.018	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.003	U	U		0.017	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.003	U	U		0.017	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Benzo(b)fluoranthene											
PAD-5	0.17		0.17	J	0.017	0.003	0.33	2.1	8270D	mg/kg	The internal standard (IS) area was outside control limits. Result estimated.
PAD-6	0.035	U	U	J	0.18	0.035	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.033		0.033	J	0.021	0.004	0.33	2.1	8270D	mg/kg	The internal standard (IS) area was outside control limits. Result estimated.
PAD-2	0.012	J	0.012	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-3	0.005	J	0.005	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-7	0.005	J	0.005	J	0.018	0.003	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-X	0.004	J	0.004	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Result < QL. Field duplicate for PAD-7.
PAD-1	0.004	J	0.004	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-8	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Benzo(k)fluoranthene											
PAD-5	0.082		0.082	J	0.017	0.003	0.33	2.1	8270D	mg/kg	The internal standard (IS) area was outside control limits. Result estimated. MS recovered high.
PAD-6	0.035	U	U	J	0.18	0.035	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.014	J	0.014	J	0.021	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated. MS recovered high.
PAD-2	0.006	J	0.006	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. MS recovered high.
PAD-3	0.004	U	U		0.019	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.004	J	0.004	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Result < QL. MS recovered high.
PAD-X	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.003	U	U		0.018	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Benzyl Chloride											
PAD-4	0.001	U	U	J	0.005	0.001	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-3	0.001	U	U		0.004	0.001	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.004	0.001	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.004	0.001	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U	J	0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.0009	U	U	J	0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
bis(2-Ethylhexyl) phthalate											
PAD-6	0.71	U	U		1.8	0.71	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
NB-1	0.61		0.61		0.2	0.08	0.33	120	8270D	mg/kg	No action taken.
SB-2	0.61		0.61		0.21	0.082	0.33	120	8270D	mg/kg	No action taken.
NB-2	0.25		0.25		0.19	0.074	0.33	120	8270D	mg/kg	No action taken.
BERM-1	0.23		0.23		0.17	0.068	0.33	120	8270D	mg/kg	No action taken.
PAD-2	0.2		0.2		0.18	0.071	0.33	120	8270D	mg/kg	No action taken.
PAD-4	0.1	J	0.1	J	0.21	0.082	0.33	120	8270D	mg/kg	Result < QL.
SB-1	0.084	U	U		0.21	0.084	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.075	U	U		0.19	0.075	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.07	U	U		0.18	0.07	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.069	U	U		0.17	0.069	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.069	U	U		0.18	0.069	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.068	U	U		0.17	0.068	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.068	U	U		0.17	0.068	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.067	U	U		0.17	0.067	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Bromomethane											
SB-2	0.003	U	U		0.007	0.003	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.003	U	U		0.006	0.003	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.004	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.002	U	U		0.006	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.002	U	U		0.006	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.002	U	U		0.006	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.002	U	U	J	0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
BERM-1	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Butyl benzyl phthalate											
PAD-6	0.71	U	U		1.8	0.71	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.082	U	U		0.21	0.082	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.075	U	U		0.19	0.075	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.071	U	U		0.18	0.071	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.069	U	U		0.17	0.069	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.069	U	U		0.17	0.069	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.068	U	U		0.17	0.068	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.068	U	U		0.17	0.068	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.067	U	U		0.17	0.067	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Cadmium											
SB-2	0.49	J	0.49	J	0.53	0.022	0.5	800	6010C	mg/kg	Result < QL.
PAD-2	0.49		0.49		0.45	0.019	0.5	800	6010C	mg/kg	No action taken.
NB-1	0.35	J	0.35	J	0.57	0.024	0.5	800	6010C	mg/kg	Result < QL.
SB-1	0.3	J	0.3	J	0.62	0.026	0.5	800	6010C	mg/kg	Result < QL.
PAD-4	0.28	J	0.28	J	0.49	0.021	0.5	800	6010C	mg/kg	Result < QL.
PAD-6	0.2	J	0.2	J	0.52	0.022	0.5	800	6010C	mg/kg	Result < QL.
BERM-1	0.16	J	0.16	J	0.44	0.018	0.5	800	6010C	mg/kg	Result < QL.
PAD-5	0.15	J	0.15	J	0.45	0.019	0.5	800	6010C	mg/kg	Result < QL.
NB-2	0.14	J	0.14	J	0.5	0.021	0.5	800	6010C	mg/kg	Result < QL.
PAD-X	0.1	J	0.1	J	0.43	0.018	0.5	800	6010C	mg/kg	Result < QL. Field duplicate for PAD-7.
PAD-1	0.099	J	0.099	J	0.45	0.019	0.5	800	6010C	mg/kg	Result < QL.
PAD-7	0.096	J	0.096	J	0.44	0.018	0.5	800	6010C	mg/kg	Result < QL.
POND-1	0.077	J	0.077	J	0.48	0.02	0.5	800	6010C	mg/kg	Result < QL.
PAD-3	0.067	J	0.067	J	0.54	0.023	0.5	800	6010C	mg/kg	Result < QL.
PAD-8	0.055	J	0.055	J	0.46	0.019	0.5	800	6010C	mg/kg	Result < QL.
Carbon Tetrachloride											
PAD-3	0.001	U	U		0.005	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.001	U	U		0.006	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Chlorobenzene											
PAD-8	0.001	U	U		0.005	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.001	U	U		0.006	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-7	0.001	U	U		0.005	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
Chloroform											
PAD-4	0.001	U	U		0.006	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-8	0.001	U	U		0.005	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Chloromethane											
PAD-1	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.004	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.002	U	U	J	0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-4	0.002	U	U		0.006	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Chromium											
PAD-6	33		33	J	1	0.078	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
SB-2	21		21	J	1.1	0.079	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
SB-1	19		19	J	1.2	0.093	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
NB-1	17		17	J	1.1	0.086	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-8	17		17	J	0.91	0.069	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-2	16		16	J	0.9	0.068	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-3	16		16	J	1.1	0.081	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
BERM-1	15		15	J	0.87	0.065	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-5	13		13	J	0.9	0.067	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-4	13		13	J	0.98	0.073	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-1	12		12	J	0.9	0.067	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
PAD-X	11		11	J	0.87	0.065	1		6010C	mg/kg	Serial dilution %D > 10 (13%). Field duplicate for PAD-7. RPD = 0
PAD-7	11		11	J	0.88	0.066	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
POND-1	10		10	J	0.97	0.072	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
NB-2	7.4		7.4	J	1	0.075	1		6010C	mg/kg	Serial dilution %D > 10 (13%).
Chromium, hexavalent											
PAD-8	2.2		2.2		0.83	0.15	1	5.6	7196A	mg/kg	No action taken.
PAD-6	1.5		1.5		0.87	0.16	1	5.6	7196A	mg/kg	No action taken.
PAD-3	0.92	U	U		0.92	0.17	1	5.6	7196A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.83	U	U		0.83	0.16	1	5.6	7196A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.83	U	U		0.83	0.15	1	5.6	7196A	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.83	U	U		0.83	0.16	1	5.6	7196A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.82	U	U		0.82	0.15	1	5.6	7196A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.24	J	0.24	J	0.89	0.17	1	5.6	7196A	mg/kg	Result < QL.
PAD-4	0.19	J	0.19	J	0.86	0.16	1	5.6	7196A	mg/kg	Result < QL.
Dibenz(a,h)anthracene											
PAD-6	0.035	U	U	J	0.18	0.035	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-5	0.021		0.021	J	0.017	0.003	0.02	0.21	8270D	mg/kg	The internal standard (IS) area was outside control limits. Result estimated.
PAD-4	0.008	J	0.008	J	0.021	0.004	0.02	0.21	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-2	0.007	J	0.007	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Result < QL.
PAD-3	0.004	U	U		0.019	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.004	J	0.004	J	0.017	0.003	0.02	0.21	8270D	mg/kg	Result < QL.
PAD-8	0.003	U	U		0.017	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.003	U	U		0.018	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.003	U	U		0.017	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Diethyl phthalate											
PAD-6	8.5		8.5	J	1.8	0.71	0.33	490000	8270D	mg/kg	MS/MSD did not recover. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	4.3		4.3	J	0.21	0.082	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
NB-1	2.1		2.1	J	0.2	0.08	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
SB-2	0.87		0.87	J	0.2	0.082	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
NB-2	0.35		0.35	J	0.18	0.074	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
PAD-2	0.24		0.24	J	0.18	0.071	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
BERM-1	0.21		0.21	J	0.17	0.068	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
PAD-5	0.18		0.18	J	0.17	0.068	0.33	490000	8270D	mg/kg	MS/MSD did not recover.
PAD-3	0.11	J	0.11	J	0.19	0.075	0.33	490000	8270D	mg/kg	Result < QL. MS/MSD did not recover.
SB-1	0.084	U	U	J	0.21	0.084	0.33	490000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-7	0.083	J	0.083	J	0.17	0.069	0.33	490000	8270D	mg/kg	Result < QL. MS/MSD did not recover.
POND-1	0.082	J	0.082	J	0.17	0.07	0.33	490000	8270D	mg/kg	Result < QL. MS/MSD did not recover.
PAD-X	0.08	J	0.08	J	0.17	0.069	0.33	490000	8270D	mg/kg	Result < QL. MS/MSD did not recover. Field duplicate for PAD-7.
PAD-8	0.068	U	U	J	0.17	0.068	0.33	490000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-1	0.067	U	U	J	0.17	0.067	0.33	490000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
Dimethyl phthalate											
NB-2	0.74		0.74	J	0.18	0.074	0.33	100000008270D		mg/kg	MS/MSD recovered low.
PAD-6	0.71	U	U	J	1.8	0.71	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.51		0.51	J	0.21	0.082	0.33	100000008270D		mg/kg	MS/MSD recovered low.
NB-1	0.17	J	0.17	J	0.2	0.08	0.33	100000008270D		mg/kg	Result < QL. MS/MSD recovered low.
SB-1	0.084	U	U	J	0.21	0.084	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
SB-2	0.082	U	U	J	0.2	0.082	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
PAD-3	0.075	U	U	J	0.19	0.075	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
PAD-2	0.071	U	U	J	0.18	0.071	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
POND-1	0.07	U	U	J	0.17	0.07	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
PAD-7	0.069	U	U	J	0.17	0.069	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
PAD-X	0.069	U	U	J	0.17	0.069	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low. Field duplicate for PAD-7.
PAD-8	0.068	U	U	J	0.17	0.068	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
BERM-1	0.068	U	U	J	0.17	0.068	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
PAD-5	0.068	U	U	J	0.17	0.068	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.
PAD-1	0.067	U	U	J	0.17	0.067	0.33	100000008270D		mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 **Event Date: July 2016 (Third Quarter 2016)**

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Di-n-butyl phthalate											
PAD-6	22		22	J	1.8	0.71	0.33	62000	8270D	mg/kg	MS recovered high. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-2	2.8		2.8	J	0.18	0.071	0.33	62000	8270D	mg/kg	MS recovered high.
PAD-1	1.7		1.7	J	0.17	0.067	0.33	62000	8270D	mg/kg	MS recovered high.
PAD-8	1.6		1.6	J	0.17	0.068	0.33	62000	8270D	mg/kg	MS recovered high.
PAD-5	1.5		1.5	J	0.17	0.068	0.33	62000	8270D	mg/kg	MS recovered high.
PAD-3	1.2		1.2	J	0.19	0.075	0.33	62000	8270D	mg/kg	MS recovered high.
PAD-4	0.94		0.94	J	0.21	0.082	0.33	62000	8270D	mg/kg	MS recovered high.
PAD-7	0.88		0.88	J	0.17	0.069	0.33	62000	8270D	mg/kg	MS recovered high.
NB-1	0.84		0.84	J	0.2	0.08	0.33	62000	8270D	mg/kg	MS recovered high.
SB-2	0.68		0.68	J	0.2	0.082	0.33	62000	8270D	mg/kg	MS recovered high.
NB-2	0.37		0.37	J	0.18	0.074	0.33	62000	8270D	mg/kg	MS recovered high.
BERM-1	0.22		0.22	J	0.17	0.068	0.33	62000	8270D	mg/kg	MS recovered high.
POND-1	0.14	J	0.14	J	0.17	0.07	0.33	62000	8270D	mg/kg	Result < QL. MS recovered high.
SB-1	0.084	U	U		0.21	0.084	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.069	U	U		0.17	0.069	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7. RPD not calculable.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Diphenylamine											
PAD-6	0.93	J	0.93	J	1.8	0.35	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. Analyzed in dilution (1:10). QL/DL adjusted. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-4	0.28		0.28	J	0.21	0.041	1.6	15000	8270D	mg/kg	MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
BERM-1	0.24		0.24	J	0.17	0.034	1.6	15000	8270D	mg/kg	MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-1	0.17	J	0.17	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
NB-1	0.14	J	0.14	J	0.2	0.04	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-8	0.13	J	0.13	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-3	0.12	J	0.12	J	0.19	0.037	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-7	0.12	J	0.12	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
POND-1	0.11	J	0.11	J	0.17	0.035	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-2	0.11	J	0.11	J	0.18	0.036	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-5	0.097	J	0.097	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
SB-2	0.045	J	0.045	J	0.2	0.041	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
SB-1	0.042	U	U	J	0.21	0.042	1.6	15000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-X	0.039	J	0.039	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds. Field duplicate for PAD-7.
NB-2	0.037	U	U	J	0.18	0.037	1.6	15000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low. N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Fluoranthene											
PAD-5	0.16		0.16		0.017	0.003	0.33	22000	8270D	mg/kg	No action taken.
PAD-6	0.035	U	U		0.18	0.035	0.33	22000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.019	J	0.019	J	0.021	0.004	0.33	22000	8270D	mg/kg	Result < QL.
PAD-2	0.005	J	0.005	J	0.018	0.004	0.33	22000	8270D	mg/kg	Result < QL.
PAD-3	0.004	J	0.004	J	0.019	0.004	0.33	22000	8270D	mg/kg	Result < QL.
PAD-7	0.003	U	U		0.018	0.003	0.33	22000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U		0.017	0.003	0.33	22000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.003	U	U		0.017	0.003	0.33	22000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-8	0.003	U	U		0.017	0.003	0.33	22000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Hexachloroethane											
PAD-6	0.35	U	U		1.8	0.35	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.041	U	U		0.21	0.041	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.037	U	U		0.19	0.037	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.036	U	U		0.18	0.036	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.034	U	U		0.17	0.034	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.034	U	U		0.17	0.034	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.034	U	U		0.17	0.034	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.034	U	U		0.17	0.034	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.034	U	U		0.17	0.034	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
HMX											
POND-1	1.42		1.42		0.249	0.0995	2.2	49000	8330B	mg/kg	No action taken.
PAD-X	0.249	U	U		0.249	0.0995	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
SB-2	0.249	U	U		0.249	0.0997	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.247	U	U		0.247	0.0988	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.246	U	U		0.246	0.0984	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.245	U	U		0.245	0.098	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.243	U	U		0.243	0.0971	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.24	U	U		0.24	0.0962	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Indeno(1,2,3-cd)pyrene											
PAD-5	0.076		0.076	J	0.017	0.003	0.33	2.1	8270D	mg/kg	The internal standard (IS) area was outside control limits. Result estimated.
PAD-6	0.035	U	U	J	0.18	0.035	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.015	J	0.015	J	0.021	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-2	0.011	J	0.011	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-1	0.007	J	0.007	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-3	0.004	U	U		0.019	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.003	U	U		0.018	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Lead											
PAD-6	530		530		1	0.21	0.3	800	6010C	mg/kg	Verification event performed September 15, 2016. Verification result reported. Original result 1000 mg/kg. Duplicate result 700 mg/kg. RPD = 27.6
PAD-8	500		500	J	0.91	0.18	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-2	280		280	J	0.9	0.18	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
NB-1	170		170	J	1.1	0.23	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
SB-2	160		160	J	1.1	0.21	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-4	150		150	J	0.98	0.2	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-5	130		130	J	0.9	0.18	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
BERM-1	120		120	J	0.87	0.17	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-X	120		120	J	0.87	0.17	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%). Field duplicate for PAD-7. RPD = 36.4
NB-2	110		110	J	1	0.2	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-7	83		83	J	0.88	0.18	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
POND-1	67		67	J	0.97	0.19	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
SB-1	64		64	J	1.2	0.25	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-3	40		40	J	1.1	0.22	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
PAD-1	40		40	J	0.9	0.18	0.3	800	6010C	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
Mercury											
PAD-5	0.12	U	U		0.12	0.017	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.12	U	U		0.12	0.016	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.12	U	U		0.12	0.017	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-3	0.12	U	U		0.12	0.017	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.11	U	U		0.11	0.016	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.1	U	U		0.1	0.014	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.089	U	U		0.089	0.012	0.1	43	7471A	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.022	J	0.022	J	0.11	0.016	0.1	43	7471A	mg/kg	Result < QL.
PAD-6	0.019	J	0.019	J	0.12	0.017	0.1	43	7471A	mg/kg	Result < QL.

SEE LAST PAGE FOR DATA QUALIFIER DEFINITIONS.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Methylene Chloride											
PAD-8	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.004	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.002	U	U		0.006	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-3	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.002	U	U	J	0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-7	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Naphthalene											
PAD-4	0.13		0.13		0.021	0.004	0.33	18	8270D	mg/kg	No action taken.
PAD-6	0.035	U	U		0.18	0.035	0.33	18	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-7	0.013	J	U		0.018	0.003	0.33	18	8270D	mg/kg	Result < QL. Blank contamination in the equipment blank (0.3 J ug/l).
PAD-5	0.009	J	U		0.017	0.003	0.33	18	8270D	mg/kg	Result < QL. Blank contamination in the equipment blank (0.3 J ug/l).
PAD-2	0.006	J	U		0.018	0.004	0.33	18	8270D	mg/kg	Result < QL. Blank contamination in the equipment blank (0.3 J ug/l).
PAD-3	0.006	J	U		0.019	0.004	0.33	18	8270D	mg/kg	Result < QL. Blank contamination in the equipment blank (0.3 J ug/l).
PAD-X	0.004	J	U		0.017	0.003	0.33	18	8270D	mg/kg	Result < QL. Blank contamination in the equipment blank (0.3 J ug/l).
PAD-8	0.003	U	U		0.017	0.003	0.33	18	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U		0.017	0.003	0.33	18	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Nitrobenzene											
PAD-X	0.249	U	U		0.249	0.0995	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Nitroglycerin											
PAD-4	36		36	J	2.45	0.978	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:10).
PAD-6	23.5		23.5	J	2.46	0.984	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:10). QL/DL adjusted.
PAD-5	19.3		19.3	J	2.42	0.968	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:10).
POND-1	19.3		19.3	J	2.49	0.995	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:10).
BERM-1	14.5		14.5		1.24	0.494	2.5	62	8330B	mg/kg	Analyzed in dilution (1:5).
PAD-7	12.8		12.8	J	1.22	0.489	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:5).
PAD-X	11		11	J	1.24	0.498	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:5). Field duplicate for PAD-7. RPD = 15.1
PAD-1	7.7		7.7	J	0.243	0.0974	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%).
PAD-3	5.56		5.56	J	0.235	0.0939	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%).
SB-2	2.84		2.84		0.249	0.0997	2.5	62	8330B	mg/kg	No action taken.
PAD-2	2.82		2.82	J	0.242	0.097	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%).
NB-1	2.5		2.5		0.243	0.0971	2.5	62	8330B	mg/kg	No action taken.
NB-2	1.41		1.41		0.245	0.098	2.5	62	8330B	mg/kg	No action taken.
PAD-8	0.243	U	U	J	0.243	0.0972	2.5	62	8330B	mg/kg	MS did not recover. MSD recovered high (179%).
SB-1	0.24	U	U		0.24	0.0962	2.5	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Perchlorate											
PAD-6	0.0138		0.0138	J	0.00216	0.00108	0.002	720	6850	mg/kg	MSD recovered high (131%).
PAD-3	0.00885		0.0088	J	0.00226	0.00113	0.002	720	6850	mg/kg	MSD recovered high (131%).
PAD-2	0.00219	U	U		0.00219	0.00109	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.00209	U	U		0.00209	0.00104	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.00204	U	U		0.00204	0.00102	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.00203	U	U		0.00203	0.00101	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-8	0.00202	U	U		0.00202	0.00101	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.00198	U	U		0.00198	0.000991	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.00146	J	0.0014	J	0.00202	0.00101	0.002	720	6850	mg/kg	Result < QL. MSD recovered high (131%).
Phenol											
PAD-6	0.18	U	U		0.35	0.18	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:10). QL/DL adjusted.
PAD-4	0.021	U	U		0.041	0.021	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.019	U	U		0.037	0.019	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.017	U	U		0.034	0.017	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.017	U	U		0.034	0.017	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.017	U	U		0.034	0.017	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.017	U	U		0.034	0.017	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
RDX											
PAD-X	0.249	U	U		0.249	0.0995	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Selenium											
PAD-6	2.1	U	U		2.1	0.35	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	2	U	U		2	0.34	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	1.9	U	U		1.9	0.33	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	1.8	U	U		1.8	0.3	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	1.8	U	U		1.8	0.31	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	1.8	U	U		1.8	0.31	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	1.8	U	U		1.8	0.31	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	1.7	U	U		1.7	0.3	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	1.7	U	U		1.7	0.29	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
SB-2	0.75	J	0.75	J	2.1	0.36	1	5100	6010C	mg/kg	Result < QL.
SB-1	0.56	J	0.56	J	2.5	0.42	1	5100	6010C	mg/kg	Result < QL.
PAD-4	0.55	J	0.55	J	2	0.33	1	5100	6010C	mg/kg	Result < QL.
NB-1	0.49	J	0.49	J	2.3	0.39	1	5100	6010C	mg/kg	Result < QL.
PAD-3	0.45	J	0.45	J	2.2	0.37	1	5100	6010C	mg/kg	Result < QL.
PAD-1	0.45	J	0.45	J	1.8	0.3	1	5100	6010C	mg/kg	Result < QL.
Silver											
PAD-3	1.1	U	U		1.1	0.068	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	1	U	U		1	0.066	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.98	U	U		0.98	0.062	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.91	U	U		0.91	0.058	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.9	U	U		0.9	0.056	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.9	U	U		0.9	0.057	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.9	U	U		0.9	0.057	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.88	U	U		0.88	0.055	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.87	U	U		0.87	0.055	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Tetrachloroethene											
PAD-8	0.001	U	U		0.005	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.001	U	U		0.006	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Tetryl											
PAD-X	0.249	U	U		0.249	0.0995	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.246	U	U		0.246	0.0984	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.245	U	U		0.245	0.0978	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.245	U	U		0.245	0.0978	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.243	U	U		0.243	0.0972	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.243	U	U		0.243	0.0974	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.242	U	U		0.242	0.097	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.242	U	U		0.242	0.0968	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.235	U	U		0.235	0.0939	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Toluene											
PAD-2	0.002	J	U		0.005	0.0009	0.005	45000	8260C	mg/kg	Result < QL. Blank contamination in the equipment blank (1.36 J ug/l).
PAD-4	0.001	U	U		0.006	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-8	0.001	U	U		0.005	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
TPH (as Diesel)											
PAD-1	130		130		17	6.6	20	11000	8015C	mg/kg	No action taken.
PAD-4	35		35		18	6.8	20	11000	8015C	mg/kg	No action taken.
PAD-X	10	J	10	J	17	6.5	20	11000	8015C	mg/kg	Result < QL. Field duplicate for PAD-7.
PAD-7	9.7	J	9.7	J	17	6.7	20	11000	8015C	mg/kg	Result < QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Trichloroethene											
NB-2	0.001	U	U		0.006	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.001	U	U		0.006	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.001	U	U		0.006	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
SB-2	0.001	U	U		0.007	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.001	U	U		0.006	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
BERM-1	0.0009	U	U		0.005	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Vinyl Chloride											
PAD-4	0.001	U	U		0.006	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.001	U	U		0.005	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.001	U	U	J	0.005	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL. Internal standard recovered outside the lower area control limit.
PAD-8	0.001	U	U		0.005	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.001	U	U		0.005	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.005	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.0009	U	U		0.005	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.0009	U	U		0.004	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.005	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: July 2016 (Third Quarter 2016)

Analyte/ Sample ID	Laboratory Result Q	Validated Result Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note

Definitions:

Data validation qualifier:

QL Denotes laboratory quantitation limit (varies due to soil factors)
DL Denotes laboratory method detection limit (varies due to soil factors)
RL Denotes reporting limit as specified in Table 1 Attachment II.C-23-24, updated June 2014 Class 1 Permit Modification
AL Denotes Action level as specified in Table 1 Attachment II.C-23-24, updated June 2014 Class 1 Permit Modification.
U Denotes the analyte was analyzed for, but was not detected at or above the DL. DL < AL except if qualified with "A" (see below).
J Denotes result is an estimated value. See sample specific note presented on data validation report table for further explanation.
UJ Denotes the analyte was analyzed for, but was not detected at or above the DL. However, the lab QL/DL estimated due to data validation. See sample specific note presented on data validation report table for further explanation.
A Laboratory QL and laboratory DL above permit AL.
R Denotes sample result was rejected. See sample specific note presented on data validation report table for further explanation.
Q Denotes Data Qualifier.

Laboratory data qualifiers:
B Denotes target analyte detected > lab DL and associated concentration is considered estimated. This is a laboratory data qualifier for inorganics, where applicable
J Denotes target analyte detected > lab DL and associated concentration is considered estimated.

Note-Dioxin/Furan results presented in a separate table.
Analyses performed by laboratories listed in data validation report.
PAD-X is field sample duplicate for PAD-7, unless noted.

NOTE (1):

- Results reported on a dry weight basis, where applicable.
- See laboratory report for definition of laboratory result qualifiers, if needed.
- AL does not apply to equipment blank or Trip blank.
- For April 2012 sampling event, PAD-6 for 8270C was analyzed in dilution. The DL for several analytes was greater than the RL but less than the AL. See sample specific note presented on data validation report table for further explanation

Draper Aden Associates
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Memorandum

To:	File
From:	Kathy Olsen, Project Environmental Scientist, Draper Aden Associates
Date:	February 8, 2017
Project Name:	Open Burning Ground Soil Monitoring Program
Project Number:	JN: B03204-216
Subject:	Data Validation Report – July 2016 Soil Monitoring Event and September 15, 2016 Verification Event
cc:	

This memorandum documents the manual data validation of the analytical results from samples collected during the July 25, 2016 Open Burning Ground (OBG) soil sampling event at the Radford Army Ammunition Plant (RFAAP) located in Radford, Virginia.

Draper Aden Associates, of Blacksburg, Virginia, collected the following soil samples: PAD-1 through PAD-8, NB-1, NB-2, SB-1, SB-2, BERM-1 and POND-1. PAD-X was submitted to the laboratory as a blind field sample duplicate for PAD-7, except for dioxin analysis. PAD-XX was submitted to the laboratory as a blind field sample duplicate for PAD-1 for dioxin analysis only. Additional sample aliquot was submitted for sample PAD-4, the sample selected for MS/MSD analysis, except where noted.

Soil samples were analyzed by USEPA SW-846 Test Methods for Evaluating Solid Wastes (SW-846) Methods 8260C, 8270D, 8290A, 8330B, 8015C, 6850, 6010C, 7196A, 7471A and total residue as percent solids by MCAWW 160.3 MOD. The trip blank was analyzed for only Method 8260C volatile organics and the equipment blank was analyzed for all analyses. Final analytical results were received by Draper Aden Associates on September 2, 2016. Final analytical results for the verification event were received on September 22, 2016.

The samples were sent via overnight courier to Eurofins Lancaster Laboratories Environmental (ELLE), of Lancaster, Pennsylvania; to TestAmerica North Canton (TestAmerica), of North Canton, Ohio; and to Microbac Laboratories Ohio Valley Division, (Microbac), of Marietta, Ohio. TestAmerica subcontracted work to TestAmerica, Knoxville of Knoxville, Tennessee.

ELLE performed the Methods 8260C and 8270D analyses. TestAmerica, North Canton performed the Methods 8015C, 6010C, 7196A, 7471A/7470A analyses; TestAmerica, Knoxville performed the 8290A analysis. Microbac performed the Method 8330B and 6850 analyses. Each laboratory submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

Data were evaluated in general accordance with:

- *Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods*, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, August 2014, where applicable
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review,* August 2014, where applicable
- *USEPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review*, September 2011, where applicable

Draper Aden Associates, of Blacksburg, Virginia, performed comprehensive data validation, including recalculation of a minimum ten percent of the data, except where noted otherwise. A summary of data validation results for each analytical method is provided below. A summary table of data validation results by sample location is provided as an attachment. No results were rejected.

The Chain of Custody (COC) and project specific target analyte list are provided as an attachment. The laboratory reported the soil results on a dry weight basis, unless noted below.

As required by the permit, the laboratories reported results at or above the method detection limit (DL) for the target analytes (constituents) listed on Table 1, in Attachment II.C-23 -24 of the operating permit. Final validated results were reported to at or above the laboratory DL. Reported detections greater than the DL but less than the laboratory quantitation limit (QL) were considered estimated concentrations. These estimated detections were reported with the "J" qualifier. Laboratory QLs and DLs were equal to or less than the reporting limit (RL) and action limit (AL) noted on Table 1, except where noted below.

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

Results were generated from a laboratory accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP).

Method 8260C/5035A (Soil)/5030C (Water) – Volatile Organic Constituents

Technical holding time and sample preservation criteria were met. QC history documentation, instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, surrogate, MS/MSD, LCS/LCSD and internal standard requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation report. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

The internal standard area for 1,4-dichlorobenzene-d4 in samples PAD-4, PAD-5, POND-1, and SB-1 was outside the lower area control limit; this internal standard was associated with benzyl chloride only. The four samples were re-analyzed with similar internal standard deficiencies and the original results were reported. Benzyl chloride was not detected at or above

the MDL or QL and associated results for benzyl chloride were qualified as estimated (PAD-4, PAD-5).

For PAD-6, the area for each of the internal standards was outside the lower area control limit. The sample was re-analyzed; however, the laboratory data from the re-analysis results were not useable and the original results were reported. No target analytes were detected at or above the MDL or QL and results for PAD-6 were qualified as estimated. The remaining internal standard criteria were met.

Toluene was detected below the QL in the equipment blank and detected results for toluene below the QL were qualified as "U" to note results were considered blank influenced.

Project samples slightly effervesced upon sodium bisulfate preservation; however, the field technician stated the effervescence was not considered substantial and the laboratory analyzed samples preserved with the sodium bisulfate and no data qualification was needed.

Field duplicate/sample results exhibited acceptable precision (RPD <35), where applicable. No data transcription or calculation check errors were noted. Soil samples were collected in the field in general accordance with Method 5035A. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

Method 8270D/3546 (3510C-water) – Semivolatile Organic Constituents

Technical holding time and sample preservation criteria were met except where noted below. Samples were extracted using Method 3546 and 3510C (water/equipment blank). Instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, surrogate, MS/MSD, LCS, and internal standard requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation report. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Naphthalene was detected below the QL in the equipment blank and detected naphthalene results below the QL were qualified as "U" to note results were considered blank influenced.

The MS/MSD did not recover for 3,3'-dimethylbenzidine and diethyl phthalate. The MS and/or MSD recovered low for dimethyl phthalate and diphenylamine. Results for these analytes were qualified as estimated "J" due to these MS/MSD recovery deficiencies. The MS recovered high for benzo(k)fluoranthene and di-n-butyl phthalate. Detected results above the DL for these analytes were qualified as estimated "J" due to the high MS/MSD recoveries.

The internal standard area for perylene-d12 was outside the control limit for samples PAD-4, PAD-5, and PAD-6. These samples were reanalyzed with similar internal standard recoveries. The original analysis was reported as the final results. Analytes associated with this internal standard were validated and qualified as estimated due to the observed QC deficiency (benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene).

The laboratory DL and QL for 3,3-dimethylbenzidine were above the action level (AL). 3,3-Dimethylbenzidine was not detected at or above the DL and the 3,3-dimethylbenzidine results were reported with an "A" qualifier to note the QL and DL were above the AL.

PAD-6 was diluted prior to analysis due to matrix interference. Similar interferences for this sample were noted in previous events. The diluted sample was analyzed and the resulting laboratory QLs and DLs for the target analytes were adjusted by the dilution factor. For several analytes, the adjusted QLs and/or DLs were greater than the RL. However, except for 3,3'-dimethylbenzidine noted above, the adjusted laboratory QL and DL were below the AL for each target analyte and no data qualification was required. 3,3'-Dimethylbenzidine was not reported at or above the adjusted DL or adjusted QL and the result was qualified with "A" to note the adjusted QL and DL were above the AL.

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. 3-Methylphenol and 4-methylphenol as reported represent the combined total of both analytes.

N-nitrosodiphenylamine decomposes to diphenylamine. The reported diphenylamine result represent the combined total of both analytes.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RPD<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

Method 8290A – Dioxins/Furans

Technical holding time and sample preservation criteria were met. Instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, surrogate, MS/MSD, LCS, and internal standard requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation reports. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Laboratory blank contamination was detected below the QL in the method blank and/or equipment blank for seven congeners (see laboratory deliverable method blank report) and associated detected results were qualified by the laboratory with the "B" qualifier. Detected results for these congeners that were less than the QL were qualified as "U" (as allowed by USEPA CLP National Functional Guidelines for Dioxin/Furan Data Review) to note results were considered blank influenced. The remaining blank criteria were met or no data qualification was needed (see Table 3).

OCDD recovered high in the MSD sample for PAD-4. OCDD recovered within acceptable criteria in the MS sample for PAD-4. The inconsistency between the MS and MSD indicated a lack of sample homogeneity. Detected results for OCDD were qualified as estimated due to this QC disparity.

Several samples were qualified by the laboratory with the "Q" qualifier. This laboratory qualifier indicated that the data did not meet criteria for identification (e.g., ion abundance ratio, retention time criteria). For these samples, the results were qualified as estimated ("J") to note that the result is the estimated maximum possible concentration (EMPC) and the identification is suspect.

1,2,3,7,8,9-HxCDD and 1,2,3,4,7,8-HxCDF for most samples were qualified by the laboratory as "C" to indicate coalition with another isomer and associated results for these two congeners were validated as "J" to note this QC deficiency.

The Toxicity Equivalence (TEQ) was calculated from the product of detections above the detection limit for each congener and their individual Toxicity Equivalence Factor (TEF) value. Results for each sample location are presented on the attached Table 3. The TEQ for each sample location was calculated using estimated concentrations; therefore the final TEQ for each result was considered estimated and qualified as "J." TEF values were based on USEPA Region 3 TEF – World Health Organization June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm). TEF factors noted above reflect current research.

Field duplicate/sample results between PAD-1 and PAD-XX exhibited acceptable precision (RPD <35), where applicable. Sample weights varied and sample QL and DLs were adjusted accordingly. No data transcription or calculation check errors were noted. No detections were reported above the AL.

Method 8330B – Nitroaromatics, Nitramines and Nitrate Esters

Technical holding time and sample preservation criteria were met except where noted below. Initial calibration, calibration verification, blank, surrogate, MS/MSD, and LCS requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation report. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

2,4-Dinitrotoluene, 2,6-dinitrotoluene and 4-amino-2,6-dinitrotoluene recovered high in the MS; however, the MSD recovered within criteria. 4-Nitrotoluene recovered high in the MSD. Detected results for these analytes were qualified as estimated due to the observed QC deficiency. Nitroglycerin did not recover in the MS and recovered high in the MSD. Results for nitroglycerin were qualified as estimated due to the observed QC deficiency. The inconsistency with the MS and MSD results indicated a lack of sample homogeneity. The remaining MS/MSD criteria were met or no data qualification was required.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RPD<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

Method 8015C/3540C-Soxhlet Extraction – TPH (as Diesel Range Organics)

Technical holding time and sample preservation criteria were met. Initial calibration, calibration verification, blank, surrogate, MS/MSD, and LCS requirements were met, except where noted below. No deviations from specific quality control criteria were identified during the data review process.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RPD<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 6850 – Perchlorate

Technical holding time and sample preservation criteria were met. The instrument performance check, instrument calibration, blank, surrogate, MS/MSD, LCS, and sample/field sample duplicate results were met, except where noted below. Deviations from specific QA/QC criteria that were identified during the data review process are summarized below.

The MSD recovered high for perchlorate in PAD-4. Detected results for perchlorate were qualified as estimated to note this QC deficiency.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RDP<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 6010C/3050B (soil)/3005A (water) – Inorganics (total)

Technical holding time and sample preservation criteria were met. Instrument calibration and calibration verification requirements were met. QL standards, blanks, interference check samples, MS/MSD, LCS and serial dilution samples were analyzed as required and acceptable criteria were met except where noted below. No data transcription or calculation check errors were noted. Deviations from quality control acceptance criteria that were identified during the data review process are summarized below.

The MS for PAD-4 recovered low for lead; however, the MSD recovered within criteria. Results for lead were qualified as estimated due to the low MS recovery. A post digestion spike was performed with similar a low spike recovery. The inconsistency with the sample, MS and MSD indicated a lack of sample homogeneity. The remaining MS/MSD criteria were met.

Chromium and lead did not meet the serial dilution percent difference requirement (10%). Results for chromium and lead were qualified as estimate "J" to note the observed QC deficiency. The inconsistency with the sample and serial dilution indicated matrix interference.

Lead was detected above the action limit in PAD-6 and a verification event was performed on September 15, 2016 to confirm or refute the detection. The lead PAD-6

verification result and its duplicate result, received September 22, 2016, were less than the AL and the verification results were reported as the final result for PAD-6 (RPD 28).

Field duplicate/sample results exhibited acceptable precision (RPD <60), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 7196A/3060A (Soil) – Hexavalent Chromium

Technical holding time and sample preservation criteria were met. Instrument calibration and calibration verification criteria were met. Blank, duplicate, and laboratory control sample results were within control limits, except where noted below. The method of standard additions was used for the analysis of the extracts. No deviations from specific control limits and QA/QC controls were identified during the data review process.

The laboratory used batch QC (LCS/LCSD) to meet the MS/MSD criteria and no data qualifications were needed.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision, where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 7471A (Soil)/7470A (Water) – Mercury-total

Technical holding time and sample preservation criteria were met. Instrument calibration and calibration verification criteria were met. QL standards, blanks, MS/MSD, and LCS samples were analyzed as required and applicable criteria were met, except where noted below. No deviations from quality control acceptance criteria were identified during the data review process.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision, where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

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

Eurofins Lancaster Laboratories Environmental, Lancaster, PA; SDG: RAE68

Comments: *Volatile organic analysis uses a purge and trap system to remove volatile organic target analytes from a 5 gram sample (Method 5035A) or 5 ml (Method 5030C). Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

Does Laboratory analyte list correspond to analyte list requested? _X_yes ___no

A. QC DELIVERABLES PACKAGE:

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

Comments: QC deliverables package requirements were met. Project reporting limits were supported by the low calibration standard.

B. QC HISTORY DOCUMENTATION CRITERIA:

1. Was an instrument specific MDL study provided, which included DL and RL values for the target analytes? ☑ YES ☐ NO
2. Was the calibration range specified? ☑ YES ☐ NO
3. Was the initial demonstration of proficiency data provided for each target analyte? ☑ YES ☐ NO

Comments: QC history documentation requirements were met.

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 14-day sample collection to analysis holding time met? ☑ YES ☐ NO
2. Were the samples received at ≤6ºC, zero headspace? ☑ YES ☐ NO
3. Was the pH of each sample adjusted to < 2 with HCl? (water) ☑ YES ☐ NO

Comments: Applicable holding time and preservation criteria were met.

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

1. Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period during which standards or samples were analyzed? ☑ YES ☐ NO
2. Was there documentation of the injection of 5-50 ng bromofluorobenzene (BFB)? ☑ YES ☐ NO
3. If the BFB spectra was taken from a calibration standard was the on-column amount 5-50 ng? ☑ NA ☐ YES ☐ NO

4. Were the ion abundance criteria met? ☑ YES ☐ NO
5. Were calibration, blank, and sample analyses performed within 12 hours of tuning? ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

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

Method Validation Performance Criteria:

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

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or analyzed independently during another 12-hour analysis period. ☑ YES ☐ NO
2. Were 8260C minimum Relative Response Factor (RRF) criteria met? *Refer to Table 4- SW-846 Method 8260C (Rev3 2/06) for specific analyte RRFs* ☑ YES ☐ NO
3. Did the target analytes and system monitoring analytes (surrogates) have the % D within ± 20%? ☑ YES ☐ NO
   If "NO", list analytes that exceed these criteria:

Draper Aden Associates Contractual Requirements:

1. Did the target analytes and system monitoring analytes

(surrogates) have % Ds within ± 20%? ☑ YES ☐ NO

Comments: Calibration verification criteria.

G. BLANK CRITERIA:

1. Was a method blank analyzed after the calibration standards, prior to sample analysis, and once for every 12 hour period beginning with the injection of BFB? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ YES ☐ NO
3. Were the trip blanks and method blanks interference free? ☑ YES ☐ NO
4. List target analytes detected in the blanks: *See comment above*
5. Was the blank concentration <5% of the MCL for the analyte? ☑ YES ☐ NO
6. Did any samples contain high concentrations of VOCs in excess of the linear range of the calibration curve? ☐ YES ☑ NO
7. Were one or more blanks analyzed following the high concentration sample to prevent cross contamination? ☑ NA ☐ YES ☐ NO

Comments: Blank criteria were met. An equipment blank was also analyzed (toluene detected). See comments above.

H. SURROGATE CRITERIA:

SW-846 Criteria:

1. Were the following surrogates used? ☑ YES ☐ NO
   - dibromofluoromethane (68-110%)
   - 4-bromofluorobenzene (59-113%)
   - toluene-d_8 (84-138%)
   - 1,2-dichloroethane-d_4 (70-121%)
2. Were recoveries within the specified ranges? ☑ YES ☐ NO
   If "NO", corrective action is required. Flagging of the data as estimated is not acceptable until corrective action has been attempted.
3. Were samples with surrogates outside the QC window reanalyzed? *NA*

Comments: The surrogate criteria were met.

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

(MS/MSD Requirements - CLP Guidelines)

Analyte	*%R Soil*	*RPD Soil*
1,1-dichloroethene	59-172	22
trichloroethene	62-137	24
benzene	66-142	21
toluene	59-139	21
chlorobenzene	60-133	21

1. Was a matrix spike and matrix spike duplicate (MS/MSD) analyzed per sample batch or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List MS target analytes not within recovery ranges: *See comment*
   Target analyte recoveries within CLP or laboratory control limits for soils
5. Was a LCS analyzed to address failed MS criteria? ☑ NA YES ☐ NO
6. Did the LCS for the failed MS analyte(s) fall within the recovery ranges and

was the problem identified as matrix interference? ☑ NA YES ☐ NO

7. Were any analytes flagged as estimated concentrations? ☐ YES ☑ NO
8. List analytes flagged as estimated concentrations: *See comment.*
9. RPD ≤20 if not otherwise specified. ☑ YES ☐ NO

Comments: MS/MSD criteria were met. CLP guidelines for %R were used; if no CLP guidelines, laboratory control limits were used.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO
3. List the LCS acceptance criteria: 80-120% / 70-130% (poor purge analytes)
4. List the LCS analytes which were not within the specified ranges: *None*
5. Were any analytes flagged as estimated due to LCS criteria? ☐ YES ☑ NO

Comments: LCS criteria were met.

K. INTERNAL STANDARDS (IS) CRITERIA:

1. Were the following internal standards used? ☑ YES ☐ NO
   - fluorobenzene, chlorobenzene-d_5,1,4-dichlorobenzene-d_4
2. Were IS areas within - 50% to + 100% of the last CV? See comment
3. Were IS retention times within ± 30 seconds of the last CV? ☑ YES ☐ NO

Comments: Internal standard criteria were met except as noted above.

L. TARGET ANALYTE IDENTIFICATION:

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

Comments: Target analyte identification criteria were met.

M. TARGET ANALYTE QUANTITATION:

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

1. Evaluate analytes detected above the RL whose %RSD was >20%: *none*
   a. Was the quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO

2. Did the initial analysis of any sample have a target analyte concentration that exceeded the initial calibration range? ☐ YES ☑ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met.

N. LIBRARY SEARCHES:

Comments: Library searches were not requested with this

O. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments*:* The IDOCs remain on file at the laboratory. No other corrective action was taken.

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

Eurofins Lancaster Laboratories Environmental, Lancaster, PA, SDGs: RAE68

Semivolatile (a.k.a, base/neutral and acid extractables) analysis involves sample preparation using SW-846 Method 3550B (soil)/3510C (equipment blank-water) or 3546, as specified). The semivolatile extracts are concentrated through evaporation. Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).

Does Laboratory analyte list correspond to list requested? _X_yes ___no

A. QC DELIVERABLES PACKAGE:

1. Was the case narrative present/signed by a lab representative? ☑ YES ☐ NO
2. Was the Chain of Custody present/signed by a lab representative? ☑ YES ☐ NO
3. Were the sample results included for the sample locations? ☑ YES ☐ NO
4. Did the laboratory report the required target analytes? ☑ YES ☐ NO
5. Were the analyte RLs reported on sample summary sheets supported by the instrument specific MDL study? ☑ YES ☐ NO

Comments: QC deliverables package requirements were met.

B. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 14-day sample collection to extraction holding time met? ☑ YES ☐ NO
2. Was the 40-day extraction to analysis holding time met? ☑ YES ☐ NO
3. Were the samples received at $\leq$ 6ºC? ☑ YES ☐ NO

Comments: Sample collection to extraction/analysis holding times were met. Preservation criteria were met. Equipment blank (water) was extracted within 7 days and analyzed within 40 days from collection.

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

1. Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period of standard and/or sample analysis? ☑ YES ☐ NO
2. Was there documentation of the injection of 50 ng of DFTPP? ☑ YES ☐ NO
3. Were the ion abundance criteria met? ☑ YES ☐ NO
4. Was the injection port inertness verified by analysis of 4,4'-DDT? (breakdown <20%) ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was the injection port inertness check acceptable? ☐ NA ☑ YES ☐ NO
5. Was column performance checked through the analysis of peak tailing of pentachlorophenol (<3%) and benzidine (<5%)? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was column performance check acceptable? ☐ NA ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

D. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

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

Method Validation Performance Criteria:

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

Comments: Initial calibration criteria were met except as noted above (3'3-dimethylbenzidine).

E. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or run independently on another 12-hour analysis period. ☑ YES ☐ NO
2. Was each target analyte % difference/drift ≤ 20%? ☑ YES ☐ NO
   (Corrective action if >20% of analytes in ICAL fail above condition)
3. Were 8270D minimum RRF criteria met?
   Relative Response Factor-range (RRF 0.010-0.900) ☑ YES ☐ NO
   **Refer to Table 4 of SW-846 Method 8270D (Rev4 2/07) for specific analyte RRFs*

Method Validation Performance Criteria:

1. Did target analytes and system monitoring analytes (surrogates) have % Ds within ± 20.0%? ☑ YES ☐ NO
   If "NO," list analytes that exceed this criterion: see attached table

Comments: Calibration verification standard criteria were met.

F. BLANK CRITERIA:

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

Comments: Blank criteria were met. An equipment blank was also analyzed.

G. SURROGATE CRITERIA:

1. Were the following surrogates used? ☑ YES ☐ NO
   - phenol – d_5 (24-113%)
   - 2-fluorophenol (25-121%)
   - 2,4,6-tribromophenol (19-122%)
   - nitrobenzene – d_5 (23-120%)
   - 2-fluorobiphenyl (30-115%)
   - p-terphenyl - d_{14} (18-137%)
2. Were recoveries within the specified ranges? ☑ YES ☐ NO
3. Were any two base/neutral or acid surrogates out of specification or did any one base/neutral or acid extractable surrogate have a recovery of less than 10%? ☐ YES ☑ NO
   If yes, was reextraction/reanalysis performed to confirm that the non-compliance was due to matrix effects rather than laboratory deficiencies? ☑ NA ☐ YES ☐ NO

Comments: Surrogate criteria were met.

H. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:
(MS/MSD Requirements - CLP Guidelines)

Analyte	% R Soil	% RPD Soil
Phenol	26-90	35
2-Chlorophenol	25-102	50
N-Nitroso-di-n-propylamine	41-126	38
4-Chloro-3-methylphenol	26-103	33
Acenaphthene	31-137	19
4-Nitrophenol	11-114	50
2,4-Dinitrotoluene	28-89	47
Pyrene	35-142	36

1. Was a MS/MSD analyzed per sample batch? ☑ YES ☐ NO
2. Did the MS/MSD contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. MS/MSD acceptance range (RPD ≤30 if not otherwise specified): *See certificate of analysis*
5. Were any analytes qualified as estimated due to MS/MSD criteria? ☑ YES ☐ NO
   - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD criteria were met except where discussed in the data review summary above.

I. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

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

Comments: LCS criteria were met.

J. INTERNAL STANDARDS CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   - 1,4-Dichlorobenzene-d_4
   - Naphthalene-d_8
   - Acenapththene-d_{10}
   - Phenanthrene-d_{10}
   - Chrysene-d_{12}
   - Perylene-d_{12}
2. Were IS areas within ± 50% of last CV? See comment
3. Were IS retention times within ± 30 seconds of last CV? ☑ YES ☐ NO

Comments: The internal standard criteria were met except where discussed.

K. TARGET ANALYTE IDENTIFICATION:

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

Comments: Target analyte identification criteria were met.

L. TARGET ANALYTE QUANTITATION:

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

1. Evaluate analytes detected above the RL whose %RSD was >20%: *None*
   a. Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of a target analyte that exceeded the initial calibration range? ☑ YES ☐ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ YES ☐ NO

3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met.

M. LIBRARY SEARCHES:

Comments: Library searches were not requested with this data set.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: The IDOCs remain on file at the laboratory. No other corrective action was taken.

SW-846 METHOD 8290A (GC/MS) DIOXIN/FURAN DATA VALIDATION

TestAmerica, Knoxville, TN, SDGs: 240-67631-1

Comments: *Target analytes are separated and quantified using a high-resolution gas chromatography and low resolution/mass spectrometry (HRGC/HRMS) extracted with methylene chloride and toluene.*

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative and Chain of custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Project specific target analytes reported at or above permit QL
- ☑ MDL study performed for target analytes and supports permit QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)
- ☑ Electronic data file reviewed

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:

- ☑ Holding time: extraction within 1 year; analysis within 45 days of extraction
- ☑ Amber glass used for collection (water);
- ☑ Glass used for collection (solid – amber recommended)
- ☑ Samples received at ≤6ºC

C. GC/MS INSTRUMENT PERFORMANCE CHECK REVIEW CRITERIA:

- ☑ Instrument MS performance check solution analyzed at the beginning of each 12-hour period of standard and/or sample analysis (PFK)
- ☑ Window defining mixture (WDM) analyzed at the beginning of each 12-hour period of standard and/or sample analysis
- ☑ Isomer specificity check analyzed at the beginning of each 12-hour period of standard and/or sample analysis
- ☑ Instrument Stability Check at the beginning of each 12-hour period

D. INITIAL GC/MS CALIBRATION REVIEW CRITERIA:

- ☑ Target analytes included in the ICAL
- ☑ ICAL consisted of a minimum of 5 calibration standards (or more, as needed)
- ☑ Lowest concentration calibration standard at or below the associated MCL, regulatory compliance, action limit, or permit QL
- ☑ Analyte %RSD for RR ± 20%/I.S. %RSD for RRF ±35%
- ☑ Ion abundance ratios within control limits

E. CALIBRATION VERIFICATION REVIEW CRITERIA:

- ☑ Calibration verification standard analyzed at the beginning/end of each 12-hour period following the instrument performance check analyses and prior to the method blank and sample analysis
- ☑ Midpoint calibration standard
- ☑ Ion abundance ratios within control limits
- ☑ Analytes have %Difference/Drift for RR within ± 25.0% /I.S. %D for RRF ± 35% (See comment above)

F. BLANK REVIEW CRITERIA:

- ☑ Method/extraction blank analyzed on each extraction
- ☑ Method blank analyzed after calibration and before analytical samples and every 12 hours
- ☑ Interference free

G. LABORATORY CONTROL SAMPLE (LCS) REVIEW CRITERIA:

- ☑ LCS analyzed with target analytes
- ☑ LCS recovered within laboratory control limits

H. INTERNAL STANDARDS REVIEW CRITERIA:

- ☑ Internal standard added to each extract
- ☑ Internal standard recovery within 40-135%

I. MATRIX SPIKE/MATRIX SPIKE DUPLICATE:

- ☑ MS/MSD recovered within limits, %R within 31-154% range (see comment above)
- ☑ One MS/MSD or duplicate per batch of samples

J. TARGET ANALYTE IDENTIFICATION REVIEW CRITERIA:

- ☑ Results were consistent with historical data. New detections evaluated as follows:
- ☑ RRTs of the 2,3,7,8-compounds within RRT window acceptable limits
- ☑ RTs of the non-2,3,7,8-compounds within RT windows acceptable limits (WDM)
- ☑ Ion abundance ratios within criteria

K. TARGET ANALYTE QUANTITATION REVIEW CRITERIA:

- ☑ Results were consistent with historical data.
- ☑ 2,3,7,8-TCDF confirmation performed on detected results above the QL
- ☑ Results that exceed the initial calibration range were reanalyzed at a higher dilution.
- ☑ Analyte concentrations recorded on the sample quantitation reports were accurately transferred to the sample summary sheets (laboratory report).

L. REPORTING:

- ☑ 2,3,7,8-TCDF confirmation performed on results > QL; confirmation results reported
- ☑ Detected results requiring validation are presented on the attached data validation report
- ☑ Isomers reported to at or above the estimated detection limit (EDL)
- ☑ Results above the EDL were included in the TEQ calculation
- ☑ Estimated results were included in the TEQ calculation
- ☑ Non-detections (i.e., not detected above EDL) were not included in the TEQ calculation.
- ☑ Results reported to at or above the TEQ. TEQ calculations are attached.

SW-846 METHOD 8015C GAS CHROMATOGRAPHY TPH-DRO DATA VALIDATION

TestAmerica, North Canton, OH; JN: 240-67631-1

Comment: *Method 8015C involves a solvent extraction (SW-846 Method 3540C) followed by injection onto a capillary column gas chromatograph (GC). Target analytes are separated and quantified by GC and flame ionization detector.*

A. QC DELIVERABLES PACKAGE:

1. Was the case narrative present/signed by a lab representative? ☑ YES ☐ NO
2. Was the Chain of Custody present/signed by a lab representative? ☑ YES ☐ NO
3. Were the sample results included for the sample locations? ☑ YES ☐ NO
4. Did the laboratory report the project specific analyte list? ☑ YES ☐ NO
5. Were QLs supported by the instrument specific MDL study? ☑ YES ☐ NO

Comments: QC deliverables requirements were met.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1. Were instrument specific DLs for each target analyte provided? ☑ YES ☐ NO
2. Were instrument specific QLs for each target analyte provided? ☑ YES ☐ NO
3. Were the instrument specific check sample data provided? ☑ YES ☐ NO

Comments: QC history documentation criteria were met.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1. Did the check sample contain the required target analytes? ☑ YES ☐ NO
2. Were the check samples analyzed in quadruplicate? ☑ YES ☐ NO
3. Were the average recoveries reported for the target analytes? ☑ YES ☐ NO

Comments: Check sample criteria were met.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 14-day sample collection to analysis holding time met? ☑ YES ☐ NO
2. Were the samples received at ≤ 6°C? ☑ YES ☐ NO

Comments: Preservation and holding time criteria were met.

E. INITIAL GC CALIBRATION CRITERIA:

1. Were target analytes included in the ICAL? ☑ YES ☐ NO
2. Was a minimum five-point calibration performed prior to analyses? ☑ YES ☐ NO
3. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO
4. Was the lowest calibration standard at or below the QL MCL, regulatory compliance or action limit? ☑ YES ☐ NO
5. Were Calibration Factors for the target analytes provided? ☑ YES ☐ NO
6. Were the Relative Standard Deviation (RSD) for target analyte CFs <20% over the established working range? ☑ YES ☐ NO

7. Quantitation Method used by the laboratory: *Average CF*
8. List target analytes with a RSD >20% over the working range: *None*

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1. Was a CV standard performed once every 12-hours? ☑ YES ☐ NO
2. Did analyte responses have a % Difference (%D) within ± 15%? ☑ YES ☐ NO
3. Was a mid-concentration standard analyzed after 10 samples (recommended) and at the end of the analytical sequence (required)? ☑ YES ☐ NO
4. Were the target analytes included in the CV? ☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a method blank analyzed? ☑ YES ☐ NO
2. Was a trip blank analyzed per analytical batch? ☑ NA ☐ YES ☐ NO
3. List the target analytes identified in the blanks: *None*

Comments: Blank criteria were met. An equipment blank was also analyzed.

H. SURROGATE CRITERIA:

1. Were the samples spiked with a surrogate? ☑ YES ☐ NO
2. Was the surrogate recovery within control limits? ☑ YES ☐ NO

Comments: Surrogate criteria were met. Surrogate added: o-Terphenyl 40-160% R.

I. RETENTION TIME (RT) CRITERIA:

1. Were the daily Retention Time (RT) windows reported (C10-C32)? ☑ YES ☐ NO
2. Were surrogate, MS/MSD/LCS RTs within the RT window? ☑ YES ☐ NO

Comments: Retention time criteria were met.

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

1. Was a MS/MSD analyzed per sample batch or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD contain target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☐ YES ☑ NO
4. List the laboratory's % recovery ranges: *10%-124%*
5. List MS target analytes not within the laboratory recovery ranges: *See Comment*
6. Was a LCS standard analyzed to address failed MS criteria? ☑ YES ☐ NO
7. Did the LCS for the failed MS analyte fall within the acceptable recovery ranges and was the problem identified as matrix interference? ☑ YES ☐ NO
8. Were any analytes flagged as estimated concentrations? ☐ YES ☑ NO

Comments: MS/MSD criteria were met.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO
3. List the LCS analytes and the laboratory's acceptable recovery range: *52%-120%.*
4. List the LCS analyte not within the acceptable recovery range: *None.*

Comments: LCS criteria were met.

L. TARGET ANALYTE IDENTIFICATION/QUANTIFICATION:

1. Were the RRTs of the reported analytes within the RT windows? ☑ YES ☐ NO
2. Were RT shifts observed when compared to the last CV? ☐ YES ☑ NO
3. Were the reported analytes confirmed? ☑ YES ☐ NO
4. Were the analyte concentrations which were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO
5. Were dilutions required? ☐ YES ☑ NO
6. Result quantified according to Method 8000? ☑ YES ☐ NO

Comments: No target analytes were confirmed detected above action limit.

M. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: The IDOCs remain on file at the laboratory. No other corrective action was taken.

SW-846 METHOD 8330B (GC) ORGANIC DATA VALIDATION

Mircrobac Laboratories, Inc., Marietta, OH; SDG: L16071301, L16071302, L16071307

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative present and signed by a laboratory representative
- ☑ Chain of Custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Results provided for project specific analytes
- ☑ Quantitation limits (QLs) at permit or project required QL
- ☑ MDL study supports QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)

B. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

- ☑ 14-day sample collection to extraction holding time
- ☑ 40-day extraction to analysis holding time
- ☑ Samples received at $\leq$6ºC
- ☑ Soil samples homogenized and air dried as per method

C. INITIAL CALIBRATION CRITERIA:

- ☑ Each analyte included in the ICAL
- ☑ ICAL consist of a minimum of 5 calibration levels
- ☑ A calibration standard at or below the associated MCL, regulatory compliance, or action limit
- ☑ Calibration levels removed from the curve should not negatively impact the data integrity
- ☑ Linear calibration model used. Correlation coefficient/coefficient of determination >0.99
- ☑ Initial calibration verification analyzed (70-130% Recovery)

D. CALIBRATION VERIFICATION (CV) CRITERIA:

- ☑ CV analyzed at the beginning of each day, after every 20 samples, and at end of the day
- ☑ Analytes have % Difference/Drift within ± 20%.

E. BLANK CRITERIA:

- ☑ Method blank analyzed
- ☑ Equipment blank analyzed
- ☑ Sample results evaluated for blank influence, where applicable.
- ☑ Blank analyzed after result exceeding calibration range, if required

F. SURROGATE CRITERIA:

- ☑ 1,2-dinitrobenzene (80-120% Recovery); Surrogate added to the samples

G. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) / LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

- ☑ MS/MSD and LCS analyzed for target analytes, where applicable
- ☑ MS/MSD and LCS in range, project specific analytes (laboratory criteria used)

H. REPORTING:

- ☑ Detected analytes or results requiring qualification are presented on the attached table(s).
- ☑ Laboratory reported results to at or above MDL.
- ☑ Results validated to the MDL.
- ☑ Confirmation by secondary column or diode array or mass spectral detection
- ☑ Soil sample results reported on dry weight (dry weight correction factor not applicable as entire soil sample is allowed to dry at room temperature before ground and passed through a 10-mesh sieve)

SW-846 METHOD 6850 (HPLC/MS) PERCHLORATE DATA VALIDATION

Mircrobac Laboratories, Inc., Marietta, OH; SDG[JF1][KO2]s: L16071301, L16071302, L16071307

Comments: *Method 6850 - uses high performance liquid chromatography (HPLC) coupled with electrospray ionization (ESI) tandem mass spectrometry (MS) for the determination of perchlorate in aqueous and solid matrices.*

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative and Chain of custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Project specific target analytes reported at or above the method detection limit (DL)
- ☑ MDL study performed for target analytes and supports QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)
- ☑ Electronic data file reviewed

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:

- ☑ Holding time: analyze water samples and extracts of solid samples within 28 days of collection or preparation, respectively
- ☑ Aqueous and soil samples collected and stored with headspace
- ☑ Aqueous samples filtered with 0.2 µm filter in the field –
- ☑ Soils samples: collected in glass amber jars, water samples collected in plastic and -Microbac confirmed filtering of supernatant with 0.45 micron filter prior to analysis

C. INSTUMENT TUNING:

- ☑ Laboratory stated instrument tuned as per manufacturer's instructions

D. INITIAL CALIBRATION REVIEW CRITERIA:

- ☑ Target analytes included in the ICAL
- ☑ ICAL consisted of a minimum of 6 calibration standards recommended (or more, as needed)
- ☑ Lowest concentration calibration standard at or below the associated MCL, regulatory compliance, action limit, or permit QL

E. INITIAL/ CONTINUING CALIBRATION VERIFICATION REVIEW CRITERIA:

- ☑ Initial calibration (ICV) prepared from different source from daily standards
- ☑ ICV analyzed immediately after the calibration standards
- ☑ Continuing calibration verification (CCV) standard analyzed at the prior to sample analysis; every 10 samples and at the end of the analytical run
- ☑ Intermediate calibration standard (alternating low to mid concentrations recommended)
- ☑ Initial and continuing verification % recoveries within 85-115%
- ☑ Area counts of internal standards (IS) in CCV must be between 50-150% of the average IS area counts in the standards from the associated ICAL.
- ☑ Low-level calibration verification (LLOQ) standard at or near the QL analyzed daily with recoveries 50-150%

F. BLANK REVIEW CRITERIA:

- ☑ Method blank analyzed on each extraction
- ☑ Method blank analyzed after calibration and before analytical samples
- ☑ Equipment blank analyzed

G. LABORATORY CONTROL SAMPLE (LCS) REVIEW CRITERIA:

- ☑ LCS analyzed with target analytes – matrix matched per batch of 20 samples
- ☑ Concentration near midpoint
- ☑ LCS recovered within limits (80-120%)

H. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/DUPLICATE:

- ☑ MS/MSD recovered within limits, %R within range (80-120%-aqueous /70-130%-solids)
- ☑ One MS/MSD and/or duplicate per batch of 20 samples
- ☑ MS/MSD/DUP RDP is 15% / RPD is 50% for detections near low calibration standard

I. INTERNAL STANDARDS REVIEW CRITERIA:

- ☑ Internal standard added to each extract
- ☑ Area count 50-150% of area count of CCV
- ☑ RT of IS within ±30 seconds of CCV

J. TARGET ANALYTE IDENTIFICATION REVIEW CRITERIA:

- ☑ The calculated 83/85 area counts ratios within ±30% for average area counts of mid-range standard or area counts of CCVs analyzed with batch
- ☑ Retention time should not vary by more than 0.2 min

K. TARGET ANALYTE QUANTITATION REVIEW CRITERIA:

- ☑ Quantitation based on internal standard calibration

L. REPORTING:

- ☑ Detected results requiring validation are presented on the attached data validation report
- ☑ Soils/sediments reported on dry-weight basis
- ☑ Results reported within calibration range
- ☑ Results reported to detection limit

M. ADDITIONAL COMMENTS:

INORGANIC DATA EVALUATION FOR ICP SW-846 METHOD 6010C

Test America North Canton, North Canton, OH; JN: 240-67631-1, 240-69582-1 (verification)
Preparation Method: 3005A (water)/3050B (soil)

"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTION CRITERIA:
Data Quality Objective: Representativeness
- ☑ Chain of custody - including sampler signatures, date and time of sampling, sample ID, analysis requested; Custody transfers must be signed and dated
- ☑ Specific detection limits/quantitation limit (QLs) for target analytes
- ☑ Standard analyzed at or below the QL (LLQC), digested, 70-130% recovery, analyzed after MDL determination and as needed
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ Passing MDL check sample
- ☑ Target analytes analyzed by requested method

B. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:
Data Quality Objective: Laboratory Method Sensitivity
- ☑ IDOC on file with the laboratory

C. TECHNICAL HOLDING TIME / PRESERVATION / DIGESTION METHOD:
Data Quality Objective: Representativeness
- ☑ 6 month holding time, pH <2 w/ $HNO_{3\ (water)}$
- ☑ Digestion method: 3005A (waters)/3050B (soils)

D. INSTRUMENT CALIBRATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ 1 calibration blank and at least 1 standard
  1 calibration blank and at least 3 standards (alternate calibration)
- ☑ Linear curve fit with correlation coefficient r ≥0.998

E. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ ICV, analyzed prior to analysis (90-110% R)
- ☑ LLICV concentration at QL, prior to analysis (70-130% R)
- ☑ CCV prior to analysis, after every 10 samples, end of analysis, 90-110%
- ☑ LLCCV concentration at QL, prior to analysis, after each batch of 20 samples and end of analysis (70-130% R)

F. BLANK SAMPLE CRITERIA:
Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation
- Trip Blank (check only if analyzed)
- ☑ Equipment Blank (check only if analyzed)
- ☑ Method/Other Lab Blanks (check only if analyzed)
- ☑ Interference free
- ☑ CCB 10 sample frequency

G. INTERFERENCE CHECK SAMPLE (ICS) CRITERIA:
Data Quality Objective: Analytical Accuracy/Verification of Isobaric Interference Corrections
- ☑ ICS analyzed at beginning of analytical run (80-120% ICSAB Recovery)

H. MATRIX SPIKE DUPLICATE (MSD) CRITERIA:
Data Quality Objective: Method Precision in Sample Matrix
- ☑ All analytes, one MSD or sample duplicate per batch of 20 samples

- ☑ RPD ≤ 20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

I. MATRIX SPIKE (MS) CRITERIA:

Data Quality Objective: Method Precision in Sample Matrix

- ☑ Recovery of MS analytes within 75-125%
- ☑ All analytes, spiked prior to digestion, one MS per batch of 20 samples
- ☑ Post digestion spike if MS/MSD recoveries fail (80-120 %R)

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

Data Quality Objective: Laboratory Method Accuracy, Laboratory Performance

- ☑ LCS for all analytes
- ☑ Recovery 80-120% all analytes
- ☑ Independent source for LCS standard

K. SERIAL DILUTION CRITERIA:

Data Quality Objective: Accuracy in Sample Matrix

- ☑ Similar matrix
- ☑ <10% Difference (applicable when concentration >10X QL)

L. SAMPLE RESULTS CRITERIA:

Data Quality Objective: n/a

- ☑ Results reported within ICP linear calibration range
- ☑ Results reported to detection limit

INORGANIC DATA EVALUATION FOR HEXAVALENT CHROMIUM (Cr VI) BY SW-METHOD 7196A

Test America North Canton, North Canton, OH; JN: 240-67631-1
Preparation Method: 3060A

"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limit / QLs for target analyte
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ IDOC for analyst on file with laboratory

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Cr (VI) extracted and analyzed by requested methods

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ Cool ≤6° C; 30 days to extraction/7 days (268 hours) from extraction to analysis
- ☑ Collection and storage without the use of stainless steel devices

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards; correlation coefficient ≥ 0.995
- ☑ Color measurement at 540 nm.

E. INITIAL / CONTINUING CALIBRATION VALIDATION CRITERIA:
- ☑ 15 sample frequency/CCV/CCV/ICV Recovery within 90-110%

F. BLANK SAMPLE CRITERIA:
- ☑ Extraction blank per batch; Interference free
- ☑ Continuing calibration blank analysis every 15 samples

G. MATRIX DUPLICATE SAMPLE CRITERIA:
- ☑ One sample duplicate for every 20 samples
- ☑ RPD ≤20 between sample and duplicate results > 4X QL
  (Control limit +/- the laboratory QL used when the original and/or the duplicate sample is < four times the laboratory reporting limit.)

H. MATRIX SPIKE (MS) SAMPLE CRITERIA:
- ☑ %Recovery 85-115%

I. LABORATORY CONTROL SAMPLE (LCS) SAMPLE CRITERIA:
- ☑ One soluble and insoluble LCS analyzed for every 20 samples; LCS 80-120%

J. SAMPLE RESULTS / QUANTITAION CRITERIA:
- ☑ Method of Standard Addition (MSA) performed for each sample
- ☑ Correlation coefficient ≥ 0.995 for each sample analyzed by MSA
- ☑ Sample results reported within calibration range using MSA
- ☑ Sample results reported to the method detection limit
- ☑ Minimum 10% data calculation checks

Example MSA Calculation:
For each sample, calculate the linear regression and correlation coefficient of each spiked aliquot using:

$$y = m x + b$$

y = response
x = concentration of the standard
m = slope
b = y-intercept

Verify that the correlation coefficient (R) is ≥ 0.995

After calculating the slope and y-intercept for each sample, calculate the concentration of the sample results from MSA using:

$$x = b/m$$

Calculation of PAD-6 by Method of Standard (MSA) Addition:

Spike Add Conc. (mg/kg)	Absorbance
0.00	0.021
0.80	0.031
4.00	0.083
20.00	0.323
R	0.99995
slope (m)	0.01513
y-intercept (b)	0.02070
Sample Result (x):	
x = b/m	1.3681
(mg/kg) (wet weight)	

INORGANIC DATA EVALUATION FOR MERCURY BY COLD VAPOR AA SW-846 METHOD 7470A (WATER)/7471A (SOIL)

Test America North Canton, North Canton, OH; JN: 240-67631-1

Does Laboratory analyte list correspond to analyte list requested? X yes ___no
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limits/quantitation limit (QLs) for target analyte
- ☑ Standard analyzed at the QL (70-130% R)
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ IDOC for analyst on file at laboratory

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

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

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

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

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

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

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

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

J. SAMPLE RESULTS CRITERIA:

- ☑ Sample results reported within instrument calibration range
- ☑ Sample results reported to the method detection limit
- ☑ Minimum 10% data calculation checks

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Data Validation Summary- 2016 Annual Soil Monitoring Event
Soil Monitoring Program for the Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford, Virginia
Permit for the Treatment of Hazardous Waste by Open Burning
EPA ID# VA1210020730

The Radford Army Ammunition Plant (RFAAP) located in Radford, Virginia is required to perform annual soil monitoring at the facility's Open Burning Ground (OBG) in accordance with Permit Attachment II.C – *Soil Monitoring Program for the Open Burning Ground* of the *Final Permit for the Treatment of Hazardous Waste by Open Burning* (Final Permit; effective date October 28, 2005; modified September 27, 2011, February 22, 2012, November 9, 2012, June 18, 2013, June 12, 2014, and December 1, 2016). The June 12, 2014 Class 1 Permit Modification included the latest update to the Action Levels (ALs) for the soil monitoring constituents (Table 1 of Permit Attachment II.C).

On behalf of BAE Systems, Ordnance Systems Inc. (BAE), Draper Aden Associates of Blacksburg, Virginia performed a comprehensive data validation of the analytical results for the July 25, 2016 annual soil monitoring event and subsequent September 15, 2015 soil verification event. The following information summarizes data validation for the event.

Permit Modifications - notes

- The sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the Virginia Department of Environmental Quality (VDEQ) in correspondence dated September 27, 2011. Additionally, the September 27, 2011 Class 3 Permit Modification reduced the list of Constituents of Potential Concern (COPCs) for the Unit and added hexavalent chromium and perchlorate.

- A Class 1 Permit Modification was approved on June 12, 2014 for the Unit and updated the permit Action Levels (AL).

- A Class 1 Permit Modification was approved on December 1, 2016 for the Unit and updated the permit quantition limit for zinc.

Sample Collection/Analytical Services

Draper Aden Associates, of Blacksburg, Virginia, collected soil samples from sample locations PAD-1 through PAD-8, NB-1, NB-2, SB-1, SB-2, BERM-1 and POND-1.

The soil samples were sent via overnight courier to Eurofins Lancaster Laboratories Environmental, Inc. (ELLE), of Lancaster, Pennsylvania; to TestAmerica North Canton (TestAmerica), of North Canton, Ohio; and to Microbac Laboratories, Ohio Valley Division (Microbac), of Marietta, Ohio. Samples were analyzed for target analytes listed on Table 1 in Attachment II.C-23 and 24 of the operating permit. (See table below - *Summary of OBG Soil Sample Locations and Required Analytical Methods).* Results were generated from a laboratory accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP). Samples were analyzed for volatiles, semivolatiles, explosives, perchlorate, inorganics, hexavalent chromium, mercury, total petroleum hydrocarbons - diesel range organics, and dioxin/furans by SW-846 Methods 8260C/5035A, 8270D, 8330B, 6850, 6010C, 7196A, 7471A/7470A, 8015C and 8290A, respectively (see chain of custody for analyte lists). As well, samples were analyzed for total residue as percent solids by MCAWW 160.3 MOD.1.

Sample PAD-7 was selected as the blind field sample duplicate for the analyses except dioxin analysis. PAD-1 was selected as the blind field sample duplicate for the dioxin analysis based on historical detections. PAD-4 was selected as the project specific matrix spike and matrix spike duplicate (MS/MSD) sample for each method of analysis. The blind field sample duplicate identification was PAD-X for PAD-7 and PAD-XX for PAD-1. A trip blank (water sample) was submitted for volatile organic analysis (Method 8260C). An equipment blank (water sample) was submitted for all analyses.

ELLE performed the Methods 8260C and 8270D analyses. TestAmerica performed the Methods 8290A, 8015C, 6010C, 7196A, and 7471A/7470A analyses. Microbac performed the Method 6850 analysis and 8330B analyses. On behalf of BAE, each laboratory submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

Receipt of Monitoring Event Data

The original certificate of analysis for the event was received on September 22, 2016.

Summary of OBG Soil Sample Locations and Required Analytical Methods

SW-846 Method/ SDG	***Sample Location***													
	PAD-1	***PAD-2***	***PAD-3***	***PAD-4***	***PAD-5***	***PAD-6***	***PAD-7***	***PAD-8***	***NB-1***	***NB-2***	***SB-1***	***SB-2***	***BERM-1***	***POND-1***
8260C/5035A Volatiles SDG: RAE68	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
8270D Semivolatiles SDG: RAE68	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
8330B Explosives and Nitroglycerin SDGs: L16071301, L16071302 (EB only) L16071307	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
6850 Perchlorate SDGs: L16071302 (EB only), L16071307	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*						
6010C Inorganics SDGs: 240-67631-1 240-69582-1(verification)	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
7196A Hexavalent Chromium SDG: 240-67631-1	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*						
7471A Mercury SDG: 240-67631-1	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*						
8015C –TPH-DRO SDG: 240-67631-1	*X*			*X*			*X*							
8290A Dioxins/Furans SDG: 240-67631-1	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*

See Table 1- Attachment II.C-23-24 (June 2014) of the operating permit for specific monitoring parameters for each sample location.
PAD-X - blind field duplicate for PAD-7, all analyses except dioxin analysis.
PAD-XX - blind field duplicate for PAD-1, dioxin analysis only.
Equipment Blank (EB) – all analyses

The chain of custody and permit required target analytes are provided as an attachment.

Data Analysis and Validation

Samples were analyzed by *SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates).* All data were evaluated in general accordance with:

- *Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods*, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates).
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, August 2014, where applicable.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, August 2014, where applicable.
- *USEPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review*, September 2011, where applicable.

Data validation included recalculation of 10% of the data, except where noted. A summary table of data validation results and a data validation report for each analytical method are provided as an attachment (see CD ROM).

Reporting of Results

As required by the permit modification, results were reported at or above the method detection limit (DL) for the target analytes (constituents) listed on Table 1 in Attachment II.C-23 and 24 of the operating permit. Detections less than the laboratory QL were validated and qualified as "J" to note the results were estimated concentrations. Laboratory QLs and DLs were equal to or less than the Reporting Limit (RL) noted on Table 1, except where noted. RLs, QLs and DLs were less than the permit AL except where noted below. Actual QLs vary due to soil factors or dilutions. Results were reported on a dry weight basis or as required by the method.

For 8270D, 3,3-dimethylbenzidine was not detected at or above the DL or QL and the 3,3-dimethylbenzidine results were reported with an "A" qualifier to note the QL and DL were above the AL.

For Method 8290A Dioxin/Furan reporting, the laboratory reported results on a dry weight basis to the estimated detection limit (EDL) for each congener. Results between the EDL and sample specific reporting limit were flagged "J" to denote results were estimated concentrations. Detections above the EDL were used in the 2,3,7,8-TCDD Toxicity Equivalent Quotient (TEQ) calculation. TEQ calculations are presented in Table 3, submitted as an attachment.

The ALs listed in the summary tables reflect the June 2014 revised ALs.

Special Project Notes

- For Method 8270D, VDEQ requested notification if 3,3-dimethylbenzidine is detected less than the QL, since the QL for this analyte, 1 mg/kg, and detection limit (DL), 0.5 mg/kg are above the AL, 0.16 mg/kg. For this event, for sample location PAD-6, the RL and DL for 3,3-dimethylbenzidine was adjusted due to sample dilution required to accurately quantitate a result for another target analyte (see table below). For this event, 3,3-dimethylbenzidine was not detected at or above the RL, DL, or the adjusted RL or the adjusted DL in any sample. Soil samples will continue to be analyzed for 3,3-dimethylbenzidine during future events.

Location	Result (mg/kg)	Adjusted RL (mg/kg)	Adjusted DL (mg/kg)	Action Level (mg/kg)	Action level Basis
3,3-Dimethylbenzidine					
PAD-6	ND	11	5.3	0.16	Region III RSL Industrial (RSL Table dated Nov 2013)

Note: ND Denotes not detected at or above detection limit or reporting limit. Sample analyzed at a 1:10 dilution.

- For 8270D, PAD-6 was diluted prior to analysis due to matrix interference. Similar interferences for this sample were noted in previous events. The diluted sample was analyzed and the resulting laboratory QLs and DLs for the target analytes were adjusted by the dilution factor. For several analytes, the adjusted QLs and/or DLs were greater

than the RL. However, except for 3,3'-dimethylbenzidine noted above, the adjusted laboratory QL and DL were below the AL for each target analyte and no data qualification was required.

Summary of Results

- No results were rejected.

Verification Events

Verification monitoring was conducted on September 15, 2016 to confirm or refute the initial result for lead in PAD-6. The verification sample result was less than the AL and no additional action was required.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS), matrix spike and matrix spike duplicate (MS/MSD) samples, and the surrogate spike. LCS and MS/MSD recoveries were within the acceptance criteria, except where noted on the attached data validation report.

Precision

Precision was evaluated using the relative percent difference (RPD) data obtained from the MS/MSD and sample/blind field duplicate results. For metals, a control limit of 60 RPD was used due to expected soil variability. For all other blind field duplicate/sample results, the control limit of <35 RPD and 2x the QL was used, where applicable.

MS/MSD RPD criteria were within acceptance criteria, except where noted on the attached data validation report.

Completeness

Completeness was evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. Valid analytical data are results not qualified as rejected.

All results were accepted. The completeness for the data set is 100%.

Representativeness

Representativeness: data collected at the site met accuracy and precision requirements, except where noted. Samples were collected using standardized procedures and at specified sample locations. Samples were analyzed using standardized, accepted analytical methods using traceable standard to ensure that accurate and reproducible data were generated. None of the data required qualification for exceeding holding time requirements. Data from this soil monitoring event were considered representative.

Comparability

Comparability: data collected at the site met comparability requirements. Samples were collected using standardized procedures and at specified sample locations. Samples were analyzed using standardized, accepted analytical methods using traceable standard to ensure that accurate and reproducible data were generated. Data has been presented using standardized units for evaluation from event to event. Data from this soil monitoring event were considered comparable.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

_________KO 2-8-2017___ _______________________

Kathy Olsen
Project Environmental Scientist Date:
2206 South Main Street
Blacksburg, Virginia 24060
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This Report has been subjected to technical and quality review by:

______________JCF – 2-8-2017 _______________________

Janet C. Frazier
Project Manager
Project Data Quality Assurance Officer Date:
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Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Sample/Blind Field Duplicate Results Greater Than the Quantitation Limit

Facility: HWMU 13/OBG Soil Monitoring Event: 7/25/2016

Analyte	Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	RL	Unit	Validation Notes
Method: 6010C									
Arsenic	PAD-7	2		2		1.3	1	mg/kg	No action taken.
	PAD-X	1.5		1.5		1.3	1	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 28.5
Barium	PAD-7	96		96		18	20	mg/kg	No action taken.
	PAD-X	97		97		17	20	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 1
Chromium	PAD-7	11		11	J	0.88	1	mg/kg	Serial dilution %D > 10 (13%).
	PAD-X	11		11	J	0.87	1	mg/kg	Serial dilution %D > 10 (13%). Field duplicate for PAD-7. RPD = 0
Lead	PAD-7	83		83	J	0.88	0.3	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%).
	PAD-X	120		120	J	0.87	0.3	mg/kg	MS recovered low (26%). Serial dilution %D > 10 (16%). Field duplicate for PAD-7. RPD = 36.4
Method: 8330B									
Nitroglycerin	PAD-7	12.8		12.8	J	1.22	2.5	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:5).
	PAD-X	11		11	J	1.24	2.5	mg/kg	MS did not recover. MSD recovered high (179%). Analyzed in dilution (1:5). Field duplicate for PAD-7. RPD = 15.1

Definitions:

Data Validation Qualifiers:

QL Denotes Lab quantitation limit. **Q** Denotes data qualifier. **RL** Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated June 2014, Class 1 permit modification). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. **J** Denotes analyte result is estimated.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460182
Eurofins Lancaster Laboratories Environmental, LLC

2425 New Holland Pike
Lancaster, PA 17601

Owner: EUROFINS SCIENTIFIC
Responsible Official: DUANE LUCKENBILL

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **June 15, 2016**
Expiration Date: **June 14, 2017**
Certificate # 8382

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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Lancaster, PA 17601

Virginia Laboratory ID: 460182
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AIR

METHOD	ANALYTE	PRIMARY
EPA 18	TOTAL GASEOUS ORGANIC COMPOUNDS	LA DEQ
EPA TO-14A 2nd Ed.	1,1,1-TRICHLOROETHANE	LA DEQ
EPA TO-14A 2nd Ed.	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	LA DEQ
EPA TO-14A 2nd Ed.	1,1-DICHLOROETHANE	LA DEQ
EPA TO-14A 2nd Ed.	1,2,4-TRICHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	LA DEQ
EPA TO-14A 2nd Ed.	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	LA DEQ
EPA TO-14A 2nd Ed.	1,3,5-TRIMETHYLBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,4-DICHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	BENZENE	LA DEQ
EPA TO-14A 2nd Ed.	CARBON TETRACHLORIDE	LA DEQ
EPA TO-14A 2nd Ed.	CHLOROETHANE (ETHYL CHLORIDE)	LA DEQ
EPA TO-14A 2nd Ed.	CIS-1,2-DICHLOROETHYLENE	LA DEQ
EPA TO-14A 2nd Ed.	ETHYLBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	M+P-XYLENE	LA DEQ
EPA TO-14A 2nd Ed.	METHYL CHLORIDE (CHLOROMETHANE)	LA DEQ
EPA TO-14A 2nd Ed.	O-XYLENE	LA DEQ
EPA TO-14A 2nd Ed.	TETRACHLOROETHENE (PERCHLOROETHENE)	LA DEQ
EPA TO-14A 2nd Ed.	TRANS-1,2-DICHLOROETHENE	LA DEQ
EPA TO-14A 2nd Ed.	TRICHLOROETHENE (TRICHLOROETHYLENE)	LA DEQ
EPA TO-14A 2nd Ed.	VINYL CHLORIDE	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	BROMODICHLOROMETHANE	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	LA DEQ
EPA TO-15 2nd Ed.	1,1,1-TRICHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	LA DEQ
EPA TO-15 2nd Ed.	1,1-DICHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	1,2,4-TRICHLOROBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	LA DEQ

METHOD	ANALYTE	PRIMARY
EPA 25	TOTAL GASEOUS NONMETHANE ORGANIC COMPOUNDS (TGNMO)	LA DEQ
EPA TO-14A 2nd Ed.	1,1,2,2-TETRACHLOROETHANE	LA DEQ
EPA TO-14A 2nd Ed.	1,1,2-TRICHLOROETHANE	LA DEQ
EPA TO-14A 2nd Ed.	1,1-DICHLOROETHYLENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2,4-TRIMETHYLBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2-DICHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2-DICHLOROPROPANE	LA DEQ
EPA TO-14A 2nd Ed.	1,3-DICHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	2-BUTANONE (METHYL ETHYL KETONE, MEK)	LA DEQ
EPA TO-14A 2nd Ed.	BROMOFORM	LA DEQ
EPA TO-14A 2nd Ed.	CHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	CHLOROFORM	LA DEQ
EPA TO-14A 2nd Ed.	CIS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-14A 2nd Ed.	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	LA DEQ
EPA TO-14A 2nd Ed.	METHYL BROMIDE (BROMOMETHANE)	LA DEQ
EPA TO-14A 2nd Ed.	METHYLENE CHLORIDE (DICHLOROMETHANE)	LA DEQ
EPA TO-14A 2nd Ed.	STYRENE	LA DEQ
EPA TO-14A 2nd Ed.	TOLUENE	LA DEQ
EPA TO-14A 2nd Ed.	TRANS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-14A 2nd Ed.	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	CARBON DISULFIDE	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	XYLENE (TOTAL)	LA DEQ
EPA TO-15 2nd Ed.	1,1,2,2-TETRACHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	1,1,2-TRICHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	1,1-DICHLOROETHYLENE	LA DEQ
EPA TO-15 2nd Ed.	1,2,4-TRIMETHYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,2-DICHLOROBENZENE	LA DEQ

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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Virginia Laboratory ID: 460182
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AIR

METHOD	ANALYTE	PRIMARY
EPA TO-15 2nd Ed.	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	LA DEQ
EPA TO-15 2nd Ed.	1,3,5-TRIMETHYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,3-DICHLOROBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	LA DEQ
EPA TO-15 2nd Ed.	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	LA DEQ
EPA TO-15 2nd Ed.	ACROLEIN (PROPENAL)	LA DEQ
EPA TO-15 2nd Ed.	ALLYL CHLORIDE (3-CHLOROPROPENE)	LA DEQ
EPA TO-15 2nd Ed.	BROMODICHLOROMETHANE	LA DEQ
EPA TO-15 2nd Ed.	CARBON DISULFIDE	LA DEQ
EPA TO-15 2nd Ed.	CHLOROBENZENE	LA DEQ
EPA TO-15 2nd Ed.	CHLOROFORM	LA DEQ
EPA TO-15 2nd Ed.	CIS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-15 2nd Ed.	ETHYL ACRYLATE	LA DEQ
EPA TO-15 2nd Ed.	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	LA DEQ
EPA TO-15 2nd Ed.	IODOMETHANE (METHYL IODIDE)	LA DEQ
EPA TO-15 2nd Ed.	M+P-XYLENE	LA DEQ
EPA TO-15 2nd Ed.	METHYL CHLORIDE (CHLOROMETHANE)	LA DEQ
EPA TO-15 2nd Ed.	METHYL TERT-BUTYL ETHER (MTBE)	LA DEQ
EPA TO-15 2nd Ed.	O-XYLENE	LA DEQ
EPA TO-15 2nd Ed.	STYRENE	LA DEQ
EPA TO-15 2nd Ed.	TOLUENE	LA DEQ
EPA TO-15 2nd Ed.	TRANS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-15 2nd Ed.	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	LA DEQ
EPA TO-15 2nd Ed.	VINYL CHLORIDE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	2-CHLOROTOLUENE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	4-ETHYLTOLUENE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	CHLORODIFLUOROMETHANE (FREON-22)	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	TERT-BUTYL ALCOHOL	LA DEQ

METHOD	ANALYTE	PRIMARY
EPA TO-15 2nd Ed.	1,2-DICHLOROPROPANE	LA DEQ
EPA TO-15 2nd Ed.	1,3-BUTADIENE	LA DEQ
EPA TO-15 2nd Ed.	1,4-DICHLOROBENZENE	LA DEQ
EPA TO-15 2nd Ed.	2-BUTANONE (METHYL ETHYL KETONE, MEK)	LA DEQ
EPA TO-15 2nd Ed.	ACETONITRILE	LA DEQ
EPA TO-15 2nd Ed.	ACRYLONITRILE	LA DEQ
EPA TO-15 2nd Ed.	BENZENE	LA DEQ
EPA TO-15 2nd Ed.	BROMOFORM	LA DEQ
EPA TO-15 2nd Ed.	CARBON TETRACHLORIDE	LA DEQ
EPA TO-15 2nd Ed.	CHLOROETHANE (ETHYL CHLORIDE)	LA DEQ
EPA TO-15 2nd Ed.	CIS-1,2-DICHLOROETHYLENE	LA DEQ
EPA TO-15 2nd Ed.	CYCLOHEXANE	LA DEQ
EPA TO-15 2nd Ed.	ETHYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	HEXACHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	ISOPROPYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	METHYL BROMIDE (BROMOMETHANE)	LA DEQ
EPA TO-15 2nd Ed.	METHYL METHACRYLATE	LA DEQ
EPA TO-15 2nd Ed.	METHYLENE CHLORIDE (DICHLOROMETHANE)	LA DEQ
EPA TO-15 2nd Ed.	PROPYLENE	LA DEQ
EPA TO-15 2nd Ed.	TETRACHLOROETHENE (PERCHLOROETHENE)	LA DEQ
EPA TO-15 2nd Ed.	TRANS-1,2-DICHLOROETHENE	LA DEQ
EPA TO-15 2nd Ed.	TRICHLOROETHENE (TRICHLOROETHYLENE)	LA DEQ
EPA TO-15 2nd Ed.	VINYL ACETATE	LA DEQ
EPA TO-15 2nd Ed.	XYLENE (TOTAL)	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	2-HEXANONE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	ACETONE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	NAPHTHALENE	LA DEQ

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DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 200.7 REV 4.4	ALUMINUM	PA	EPA 200.7 REV 4.4	BARIUM	PA
EPA 200.7 REV 4.4	BERYLLIUM	PA	EPA 200.7 REV 4.4	CADMIUM	PA
EPA 200.7 REV 4.4	CALCIUM	PA	EPA 200.7 REV 4.4	CHROMIUM	PA
EPA 200.7 REV 4.4	COPPER	PA	EPA 200.7 REV 4.4	IRON	PA
EPA 200.7 REV 4.4	MAGNESIUM	PA	EPA 200.7 REV 4.4	MANGANESE	PA
EPA 200.7 REV 4.4	NICKEL	PA	EPA 200.7 REV 4.4	SILVER	PA
EPA 200.7 REV 4.4	SODIUM	PA	EPA 200.7 REV 4.4	ZINC	PA
EPA 200.8 REV 5.4	ANTIMONY	PA	EPA 200.8 REV 5.4	ARSENIC	PA
EPA 200.8 REV 5.4	BERYLLIUM	PA	EPA 200.8 REV 5.4	CADMIUM	PA
EPA 200.8 REV 5.4	CHROMIUM	PA	EPA 200.8 REV 5.4	COPPER	PA
EPA 200.8 REV 5.4	LEAD	PA	EPA 200.8 REV 5.4	NICKEL	PA
EPA 200.8 REV 5.4	SELENIUM	PA	EPA 200.8 REV 5.4	THALLIUM	PA
EPA 245.1 REV 3	MERCURY	PA	EPA 300.0 REV 2.1	CHLORIDE	PA
EPA 300.0 REV 2.1	FLUORIDE	PA	EPA 300.0 REV 2.1	NITRATE AS N	PA
EPA 300.0 REV 2.1	NITRITE AS N	PA	EPA 300.0 REV 2.1	SULFATE	PA
EPA 335.4 REV 1.0	CYANIDE	PA	EPA 353.2 REV 2	NITRATE AS N	PA
EPA 353.2 REV 2	NITRATE/NITRITE	PA	EPA 353.2 REV 2	NITRITE AS N	PA
EPA 504.1 REV 1.1	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA	EPA 504.1 REV 1.1	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 507 REV 2.1	ALACHLOR	PA	EPA 507 REV 2.1	ATRAZINE	PA
EPA 507 REV 2.1	SIMAZINE	PA	EPA 515.1 REV 4	2,4-D	PA
EPA 515.1 REV 4	DALAPON	PA	EPA 515.1 REV 4	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 515.1 REV 4	PENTACHLOROPHENOL	PA	EPA 515.1 REV 4	PICLORAM	PA
EPA 515.1 REV 4	SILVEX (2,4,5-TP)	PA	EPA 524.2 REV 4.1	1,1,1-TRICHLOROETHANE	PA
EPA 524.2 REV 4.1	1,1,2-TRICHLOROETHANE	PA	EPA 524.2 REV 4.1	1,1-DICHLOROETHYLENE	PA
EPA 524.2 REV 4.1	1,2,4-TRICHLOROBENZENE	PA	EPA 524.2 REV 4.1	1,2-DICHLOROBENZENE	PA
EPA 524.2 REV 4.1	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA	EPA 524.2 REV 4.1	1,2-DICHLOROPROPANE	PA
EPA 524.2 REV 4.1	1,4-DICHLOROBENZENE	PA	EPA 524.2 REV 4.1	BENZENE	PA
EPA 524.2 REV 4.1	BROMODICHLOROMETHANE	PA	EPA 524.2 REV 4.1	BROMOFORM	PA
EPA 524.2 REV 4.1	CARBON TETRACHLORIDE	PA	EPA 524.2 REV 4.1	CHLOROBENZENE	PA
EPA 524.2 REV 4.1	CHLORODIBROMOMETHANE	PA	EPA 524.2 REV 4.1	CHLOROFORM	PA
EPA 524.2 REV 4.1	CIS-1,2-DICHLOROETHYLENE	PA	EPA 524.2 REV 4.1	ETHYLBENZENE	PA
EPA 524.2 REV 4.1	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 524.2 REV 4.1	STYRENE	PA
EPA 524.2 REV 4.1	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 524.2 REV 4.1	TOLUENE	PA
EPA 524.2 REV 4.1	TOTAL TRIHALOMETHANES	PA	EPA 524.2 REV 4.1	TRANS-1,2-DICHLOROETHENE	PA

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DRINKING WATER

METHOD	ANALYTE	PRIMARY
EPA 524.2 REV 4.1	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 524.2 REV 4.1	XYLENE (TOTAL)	PA
EPA 525.2 REV 2	ATRAZINE	PA
EPA 525.2 REV 2	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 525.2 REV 2	ENDRIN	PA
EPA 525.2 REV 2	HEPTACHLOR	PA
EPA 525.2 REV 2	HEXACHLOROBENZENE	PA
EPA 525.2 REV 2	METHOXYCHLOR	PA
EPA 531.1 REV 3.1	CARBOFURAN (FURADEN)	PA
SM 2130 B-2001	TURBIDITY	PA
SM 2510 B-1997	CONDUCTIVITY	PA
SM 4500-F⁻ C-1997	FLUORIDE	PA
SM 4500-P E-1999	ORTHOPHOSPHATE AS P	PA
SM 9215 B-1994	HETEROTROPHIC PLATE COUNT	PA
SM 9223 COLILERT P/A	TOTAL COLIFORMS	PA

METHOD	ANALYTE	PRIMARY
EPA 524.2 REV 4.1	VINYL CHLORIDE	PA
EPA 525.2 REV 2	ALACHLOR	PA
EPA 525.2 REV 2	BENZO(A)PYRENE	PA
EPA 525.2 REV 2	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	PA
EPA 525.2 REV 2	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 525.2 REV 2	HEPTACHLOR EPOXIDE	PA
EPA 525.2 REV 2	HEXACHLOROCYCLOPENTADIENE	PA
EPA 525.2 REV 2	SIMAZINE	PA
EPA 531.1 REV 3.1	OXAMYL	PA
SM 2320 B-1997	ALKALINITY AS CACO3	PA
SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	PA
SM 4500-H+ B-2000	PH	PA
SM 5540 C-2000	SURFACTANTS - MBAS	PA
SM 9223 COLILERT P/A	ESCHERICHIA COLI	PA

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	PA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	PA
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA
EPA 1613 B	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	PA
EPA 1613 B	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PA
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	PA

METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PA
EPA 160.4	RESIDUE-VOLATILE	PA
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 1613 B	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 1631 E	MERCURY	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

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Eurofins Lancaster Laboratories Environmental, LLC
2425 New Holland Pike
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Virginia Laboratory ID: 460182
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1664 A	OIL AND GREASE (AS HEM)	PA
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	PA
EPA 1666 A	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	PA
EPA 1666 A	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 1666 A	ETHYL ACETATE	PA
EPA 1666 A	ISOBUTYRALDEHYDE	PA
EPA 1666 A	ISOPROPYL ACETATE	PA
EPA 1666 A	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 1666 A	METHYL FORMATE	PA
EPA 1666 A	N-AMYL ACETATE	PA
EPA 1666 A	N-AMYL ALCOHOL	PA
EPA 1666 A	N-BUTYL-ACETATE	PA
EPA 1666 A	N-HEPTANE	PA
EPA 1666 A	N-HEXANE	PA
EPA 1666 A	TERT-BUTYL ALCOHOL	PA
EPA 1666 A	TETRAHYDROFURAN (THF)	PA
EPA 1666 A	XYLENE (TOTAL)	PA
EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	PA
EPA 1668 A	2,2',3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-194)	PA
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	PA
EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	PA
EPA 1668 A	2,2',3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-170)	PA
EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	PA
EPA 1668 A	2,2',3,3',4,4',6-HEPTACHLOROBIPHENYL (BZ-171)	PA
EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	PA
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	PA
EPA 1668 A	2,2',3,3',4,4'-HEXACHLOROBIPHENYL (BZ-128)	PA
EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	PA
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	PA
EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL (BZ-199)	PA
EPA 1668 A	2,2',3,3',4,5,5',6-OCTACHLOROBIPHENYL (BZ-198)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-NONACHLOROBIPHENYL (BZ-208)	PA
EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	PA
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	PA
EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	PA
EPA 1668 A	2,2',3,3',4,5,6-HEPTACHLOROBIPHENYL (BZ-173)	PA
EPA 1668 A	2,2',3,3',4,5-HEXACHLOROBIPHENYL (BZ-129)	PA
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	PA
EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	PA
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	PA
EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	PA
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	PA
EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	PA
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	PA
EPA 1668 A	2,2',3,3',5,6'-HEXACHLOROBIPHENYL (BZ-135)	PA
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	PA
EPA 1668 A	2,2',3,3',5,6-HEXACHLOROBIPHENYL (BZ-134)	PA
EPA 1668 A	2,2',3,3',5-PENTACHLOROBIPHENYL (BZ-83)	PA
EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	PA
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	PA
EPA 1668 A	2,2',3,3'-TETRACHLOROBIPHENYL (BZ-40)	PA

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METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,4',5',6-HEXACHLOROBIPHENYL (BZ-149)	PA
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	PA
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	PA
EPA 1668 A	2,2',3,4',5,6-HEXACHLOROBIPHENYL (BZ-147)	PA
EPA 1668 A	2,2',3,4',6'-PENTACHLOROBIPHENYL (BZ-98)	PA
EPA 1668 A	2,2',3,4',6-PENTACHLOROBIPHENYL (BZ-91)	PA
EPA 1668 A	2,2',3,4,4',5',6-HEPTACHLOROBIPHENYL (BZ-183)	PA
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	PA
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	PA
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	PA
EPA 1668 A	2,2',3,4,4',6'-HEXACHLOROBIPHENYL (BZ-140)	PA
EPA 1668 A	2,2',3,4,4',6-HEXACHLOROBIPHENYL (BZ-139)	PA
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	PA
EPA 1668 A	2,2',3,4,5,5',6-HEPTACHLOROBIPHENYL (BZ-185)	PA
EPA 1668 A	2,2',3,4,5,6'-HEXACHLOROBIPHENYL (BZ-143)	PA
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	PA
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	PA
EPA 1668 A	2,2',3,4,6-PENTACHLOROBIPHENYL (BZ-88)	PA
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	PA
EPA 1668 A	2,2',3,5,5',6-HEXACHLOROBIPHENYL (BZ-151)	PA
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	PA
EPA 1668 A	2,2',3,5,6-PENTACHLOROBIPHENYL (BZ-93)	PA
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	PA
EPA 1668 A	2,2',3,6-TETRACHLOROBIPHENYL (BZ-45)	PA
EPA 1668 A	2,2',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-153)	PA
EPA 1668 A	2,2',3,4',5'-PENTACHLOROBIPHENYL (BZ-97)	PA
EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	PA
EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	PA
EPA 1668 A	2,2',3,4',5-PENTACHLOROBIPHENYL (BZ-90)	PA
EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	PA
EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	PA
EPA 1668 A	2,2',3,4,4',5'-HEXACHLOROBIPHENYL (BZ-138)	PA
EPA 1668 A	2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-180)	PA
EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	PA
EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	PA
EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	PA
EPA 1668 A	2,2',3,4,4'-PENTACHLOROBIPHENYL (BZ-85)	PA
EPA 1668 A	2,2',3,4,5'-PENTACHLOROBIPHENYL (BZ-87)	PA
EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	PA
EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	PA
EPA 1668 A	2,2',3,4,5-PENTACHLOROBIPHENYL (BZ-86)	PA
EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	PA
EPA 1668 A	2,2',3,4-TETRACHLOROBIPHENYL (BZ-41)	PA
EPA 1668 A	2,2',3,5'-TETRACHLOROBIPHENYL (BZ-44)	PA
EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	PA
EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	PA
EPA 1668 A	2,2',3,5-TETRACHLOROBIPHENYL (BZ-43)	PA
EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	PA
EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	PA
EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	PA

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EPA 1668 A	2,2',4,4',5-PENTACHLOROBIPHENYL (BZ-99)	PA
EPA 1668 A	2,2',4,4',6-PENTACHLOROBIPHENYL (BZ-100)	PA
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	PA
EPA 1668 A	2,2',4,5,5'-PENTACHLOROBIPHENYL (BZ-101)	PA
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	PA
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	PA
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	PA
EPA 1668 A	2,2',5,6'-TETRACHLOROBIPHENYL (BZ-53)	PA
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	PA
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	PA
EPA 1668 A	2,3',4',5'-TETRACHLOROBIPHENYL (BZ-76)	PA
EPA 1668 A	2,3',4',5-TETRACHLOROBIPHENYL (BZ-70)	PA
EPA 1668 A	2,3',4'-TRICHLOROBIPHENYL (BZ-33)	PA
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	PA
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	PA
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	PA
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	PA
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	PA
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	PA
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	PA
EPA 1668 A	2,3',5-TRICHLOROBIPHENYL (BZ-26)	PA
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	PA
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	PA
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	PA
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	PA
EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	PA
EPA 1668 A	2,2',4,4'-TETRACHLOROBIPHENYL (BZ-47)	PA
EPA 1668 A	2,2',4,5'-TETRACHLOROBIPHENYL (BZ-49)	PA
EPA 1668 A	2,2',4,5,6'-PENTACHLOROBIPHENYL (BZ-102)	PA
EPA 1668 A	2,2',4,6'-TETRACHLOROBIPHENYL (BZ-51)	PA
EPA 1668 A	2,2',4,6-TETRACHLOROBIPHENYL (BZ-50)	PA
EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	PA
EPA 1668 A	2,2',5-TRICHLOROBIPHENYL (BZ-18)	PA
EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	PA
EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	PA
EPA 1668 A	2,3',4',5,5'-PENTACHLOROBIPHENYL (BZ-124)	PA
EPA 1668 A	2,3',4',6-TETRACHLOROBIPHENYL (BZ-71)	PA
EPA 1668 A	2,3',4,4',5',6-HEXACHLOROBIPHENYL (BZ-168)	PA
EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	PA
EPA 1668 A	2,3',4,4',6-PENTACHLOROBIPHENYL (BZ-119)	PA
EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	PA
EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	PA
EPA 1668 A	2,3',4,6-TETRACHLOROBIPHENYL (BZ-69)	PA
EPA 1668 A	2,3',5',6-TETRACHLOROBIPHENYL (BZ-73)	PA
EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	PA
EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	PA
EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	PA
EPA 1668 A	2,3,3',4',5,5',6-HEPTACHLOROBIPHENYL (BZ-193)	PA
EPA 1668 A	2,3,3',4',5,6-HEXACHLOROBIPHENYL (BZ-163)	PA
EPA 1668 A	2,3,3',4',6-PENTACHLOROBIPHENYL (BZ-110)	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	PA
EPA 1668 A	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (BZ-157)	PA
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	PA
EPA 1668 A	2,3,3',4,4',5-HEXACHLOROBIPHENYL (BZ-156)	PA
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	PA
EPA 1668 A	2,3,3',4,5'-PENTACHLOROBIPHENYL (BZ-108)	PA
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	PA
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	PA
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	PA
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	PA
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	PA
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	PA
EPA 1668 A	2,3,3'-TRICHLOROBIPHENYL (BZ-20)	PA
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	PA
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	PA
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	PA
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	PA
EPA 1668 A	2,3,4,5-TETRACHLOROBIPHENYL (BZ-61)	PA
EPA 1668 A	2,3,4-TRICHLOROBIPHENYL (BZ-21)	PA
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	PA
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	PA
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	PA
EPA 1668 A	2,4,4',5-TETRACHLOROBIPHENYL (BZ-74)	PA
EPA 1668 A	2,4,4'-TRICHLOROBIPHENYL (BZ-28)	PA
EPA 1668 A	2,4,6-TRICHLOROBIPHENYL (BZ-30)	PA
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	PA
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	PA
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	PA
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	PA
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	PA
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	PA
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	PA
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	PA
EPA 1668 A	2,3,3',4,5,6-HEXACHLOROBIPHENYL (BZ-160)	PA
EPA 1668 A	2,3,3',4,6-PENTACHLOROBIPHENYL (BZ-109)	PA
EPA 1668 A	2,3,3',5',6-PENTACHLOROBIPHENYL (BZ-113)	PA
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	PA
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	PA
EPA 1668 A	2,3,3',6-TETRACHLOROBIPHENYL (BZ-59)	PA
EPA 1668 A	2,3,4',5,6-PENTACHLOROBIPHENYL (BZ-117)	PA
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	PA
EPA 1668 A	2,3,4,4',5,6-HEXACHLOROBIPHENYL (BZ-166)	PA
EPA 1668 A	2,3,4,4',6-PENTACHLOROBIPHENYL (BZ-115)	PA
EPA 1668 A	2,3,4,5,6-PENTACHLOROBIPHENYL (BZ-116)	PA
EPA 1668 A	2,3,4,6-TETRACHLOROBIPHENYL (BZ-62)	PA
EPA 1668 A	2,3,5,6-TETRACHLOROBIPHENYL (BZ-65)	PA
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	PA
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	PA
EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	PA
EPA 1668 A	2,4,4',6-TETRACHLOROBIPHENYL (BZ-75)	PA
EPA 1668 A	2,4,5-TRICHLOROBIPHENYL (BZ-29)	PA
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	PA
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	PA
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	PA
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	PA
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	PA
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	PA
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	PA
EPA 1668 A	3,4'-DICHLOROBIPHENYL (BZ-13)	PA
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	PA
EPA 1668 A	3,4-DICHLOROBIPHENYL (BZ-12)	PA
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	PA
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	PA
EPA 1671 A	2-METHOXYETHANOL (METHYL CELLOSOLVE)	PA
EPA 1671 A	DIETHYLAMINE	PA
EPA 1671 A	ETHANOL	PA
EPA 1671 A	N-PROPANOL (1-PROPANOL)	PA
EPA 180.1 REV 2	TURBIDITY	PA
EPA 200.7 REV 4.4	ALUMINUM	PA
EPA 200.7 REV 4.4	ARSENIC	PA
EPA 200.7 REV 4.4	BERYLLIUM	PA
EPA 200.7 REV 4.4	CADMIUM	PA
EPA 200.7 REV 4.4	CHROMIUM	PA
EPA 200.7 REV 4.4	COPPER	PA
EPA 200.7 REV 4.4	LEAD	PA
EPA 200.7 REV 4.4	MANGANESE	PA
EPA 200.7 REV 4.4	NICKEL	PA
EPA 200.7 REV 4.4	SELENIUM	PA
EPA 200.7 REV 4.4	SODIUM	PA
EPA 200.7 REV 4.4	TIN	PA
EPA 200.7 REV 4.4	VANADIUM	PA
EPA 200.8 REV 5.4	ALUMINUM	PA
EPA 200.8 REV 5.4	ARSENIC	PA
EPA 200.8 REV 5.4	BERYLLIUM	PA
EPA 200.8 REV 5.4	CHROMIUM	PA
EPA 200.8 REV 5.4	COPPER	PA

METHOD	ANALYTE	PRIMARY
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	PA
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	PA
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	PA
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	PA
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	PA
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	PA
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	PA
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	PA
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	PA
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	PA
EPA 1671 A	ACETONITRILE	PA
EPA 1671 A	DIMETHYL SULFOXIDE	PA
EPA 1671 A	METHANOL	PA
EPA 1671 A	TRIETHYLAMINE	PA
EPA 200.2 REV 2.8	PREP: SAMPLE PREPARATION PROCEDURE FOR SPECTROCHEMICAL DETERMINATION OF TOTAL RECOVERABLE ELEMENTS	PA
EPA 200.7 REV 4.4	ANTIMONY	PA
EPA 200.7 REV 4.4	BARIUM	PA
EPA 200.7 REV 4.4	BORON	PA
EPA 200.7 REV 4.4	CALCIUM	PA
EPA 200.7 REV 4.4	COBALT	PA
EPA 200.7 REV 4.4	IRON	PA
EPA 200.7 REV 4.4	MAGNESIUM	PA
EPA 200.7 REV 4.4	MOLYBDENUM	PA
EPA 200.7 REV 4.4	POTASSIUM	PA
EPA 200.7 REV 4.4	SILVER	PA
EPA 200.7 REV 4.4	THALLIUM	PA
EPA 200.7 REV 4.4	TITANIUM	PA
EPA 200.7 REV 4.4	ZINC	PA
EPA 200.8 REV 5.4	ANTIMONY	PA
EPA 200.8 REV 5.4	BARIUM	PA
EPA 200.8 REV 5.4	CADMIUM	PA
EPA 200.8 REV 5.4	COBALT	PA

Commonwealth of Virginia

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Virginia Laboratory ID: 460182
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 200.8 REV 5.4	LEAD	PA
EPA 200.8 REV 5.4	MOLYBDENUM	PA
EPA 200.8 REV 5.4	SELENIUM	PA
EPA 200.8 REV 5.4	THALLIUM	PA
EPA 200.8 REV 5.4	ZINC	PA
EPA 200.8 REV 5.4 - EXTENDED	CALCIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	MAGNESIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	SODIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	TITANIUM	PA
EPA 300.0 REV 2.1	BROMIDE	PA
EPA 300.0 REV 2.1	FLUORIDE	PA
EPA 300.0 REV 2.1	NITRITE AS N	PA
EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	PA
EPA 3020 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	PA
EPA 3511	PREP: ORGANIC EXTRACTION AND SAMPLE PREPARATION	PA
EPA 353.2 REV 2	NITRATE AS N	PA
EPA 353.2 REV 2	NITRITE AS N	PA
EPA 3630 C	PREP: SILICA GEL CLEANUP	PA
EPA 365.3	ORTHOPHOSPHATE AS P	PA
EPA 420.4 REV 1	TOTAL PHENOLICS	PA
EPA 6010 B	ALUMINUM	PA
EPA 6010 B	ARSENIC	PA
EPA 6010 B	BERYLLIUM	PA
EPA 6010 B	CADMIUM	PA
EPA 6010 B	CHROMIUM	PA
EPA 6010 B	COPPER	PA
EPA 6010 B	LEAD	PA
EPA 6010 B	MAGNESIUM	PA
EPA 6010 B	MOLYBDENUM	PA
EPA 6010 B	POTASSIUM	PA

METHOD	ANALYTE	PRIMARY
EPA 200.8 REV 5.4	MANGANESE	PA
EPA 200.8 REV 5.4	NICKEL	PA
EPA 200.8 REV 5.4	SILVER	PA
EPA 200.8 REV 5.4	VANADIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	BORON	PA
EPA 200.8 REV 5.4 - EXTENDED	IRON	PA
EPA 200.8 REV 5.4 - EXTENDED	POTASSIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	TIN	PA
EPA 245.1 REV 3	MERCURY	PA
EPA 300.0 REV 2.1	CHLORIDE	PA
EPA 300.0 REV 2.1	NITRATE AS N	PA
EPA 300.0 REV 2.1	SULFATE	PA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA
EPA 335.4 REV 1.0	CYANIDE	PA
EPA 3510 C	PREP: LIQUID-LIQUID EXTRACTION	PA
EPA 3520 C	PREP: CONTINUOUS LIQUID-LIQUID EXTRACTION	PA
EPA 353.2 REV 2	NITRATE/NITRITE	PA
EPA 3620 B	PREP: FLORISIL CLEANUP	PA
EPA 365.1 REV 2	PHOSPHORUS, TOTAL	PA
EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	PA
EPA 5030	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	PA
EPA 6010 B	ANTIMONY	PA
EPA 6010 B	BARIUM	PA
EPA 6010 B	BORON	PA
EPA 6010 B	CALCIUM	PA
EPA 6010 B	COBALT	PA
EPA 6010 B	IRON	PA
EPA 6010 B	LITHIUM	PA
EPA 6010 B	MANGANESE	PA
EPA 6010 B	NICKEL	PA
EPA 6010 B	SELENIUM	PA

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EPA 6010 B	SILVER	PA
EPA 6010 B	STRONTIUM	PA
EPA 6010 B	TIN	PA
EPA 6010 B	VANADIUM	PA
EPA 6010 B - EXTENDED	ZIRCONIUM	PA
EPA 6010 C	ANTIMONY	PA
EPA 6010 C	BARIUM	PA
EPA 6010 C	BORON	PA
EPA 6010 C	CALCIUM	PA
EPA 6010 C	COBALT	PA
EPA 6010 C	IRON	PA
EPA 6010 C	LITHIUM	PA
EPA 6010 C	MANGANESE	PA
EPA 6010 C	NICKEL	PA
EPA 6010 C	SELENIUM	PA
EPA 6010 C	SODIUM	PA
EPA 6010 C	THALLIUM	PA
EPA 6010 C	TITANIUM	PA
EPA 6010 C	ZINC	PA
EPA 602	BENZENE	PA
EPA 602	TOLUENE	PA
EPA 6020 A	ALUMINUM	PA
EPA 6020 A	ARSENIC	PA
EPA 6020 A	BERYLLIUM	PA
EPA 6020 A	CALCIUM	PA
EPA 6020 A	COBALT	PA
EPA 6020 A	IRON	PA
EPA 6020 A	MAGNESIUM	PA
EPA 6020 A	NICKEL	PA
EPA 6020 A	SELENIUM	PA
EPA 6020 A	SODIUM	PA
EPA 6020 A	VANADIUM	PA
EPA 6020 A - EXTENDED	BORON	PA
EPA 6020 A - EXTENDED	STRONTIUM	PA
EPA 6020 A - EXTENDED	TITANIUM	PA
EPA 608	4,4'-DDE	PA
EPA 608	ALDRIN	PA

METHOD	ANALYTE	PRIMARY
EPA 6010 B	SODIUM	PA
EPA 6010 B	THALLIUM	PA
EPA 6010 B	TITANIUM	PA
EPA 6010 B	ZINC	PA
EPA 6010 C	ALUMINUM	PA
EPA 6010 C	ARSENIC	PA
EPA 6010 C	BERYLLIUM	PA
EPA 6010 C	CADMIUM	PA
EPA 6010 C	CHROMIUM	PA
EPA 6010 C	COPPER	PA
EPA 6010 C	LEAD	PA
EPA 6010 C	MAGNESIUM	PA
EPA 6010 C	MOLYBDENUM	PA
EPA 6010 C	POTASSIUM	PA
EPA 6010 C	SILVER	PA
EPA 6010 C	STRONTIUM	PA
EPA 6010 C	TIN	PA
EPA 6010 C	VANADIUM	PA
EPA 6010 C - EXTENDED	ZIRCONIUM	PA
EPA 602	ETHYLBENZENE	PA
EPA 602	XYLENE (TOTAL)	PA
EPA 6020 A	ANTIMONY	PA
EPA 6020 A	BARIUM	PA
EPA 6020 A	CADMIUM	PA
EPA 6020 A	CHROMIUM	PA
EPA 6020 A	COPPER	PA
EPA 6020 A	LEAD	PA
EPA 6020 A	MANGANESE	PA
EPA 6020 A	POTASSIUM	PA
EPA 6020 A	SILVER	PA
EPA 6020 A	THALLIUM	PA
EPA 6020 A	ZINC	PA
EPA 6020 A - EXTENDED	MOLYBDENUM	PA
EPA 6020 A - EXTENDED	TIN	PA
EPA 608	4,4'-DDD	PA
EPA 608	4,4'-DDT	PA
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA

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METHOD	ANALYTE	PRIMARY
EPA 608	AROCLOR-1016 (PCB-1016)	PA
EPA 608	AROCLOR-1221 (PCB-1221)	PA
EPA 608	AROCLOR-1232 (PCB-1232)	PA
EPA 608	AROCLOR-1242 (PCB-1242)	PA
EPA 608	AROCLOR-1248 (PCB-1248)	PA
EPA 608	AROCLOR-1254 (PCB-1254)	PA
EPA 608	AROCLOR-1260 (PCB-1260)	PA
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 608	CHLORDANE (TECH.)	PA
EPA 608	DELTA-BHC	PA
EPA 608	DIELDRIN	PA
EPA 608	ENDOSULFAN I	PA
EPA 608	ENDOSULFAN II	PA
EPA 608	ENDOSULFAN SULFATE	PA
EPA 608	ENDRIN	PA
EPA 608	ENDRIN ALDEHYDE	PA
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 608	HEPTACHLOR	PA
EPA 608	HEPTACHLOR EPOXIDE	PA
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 622	AZINPHOS-METHYL (GUTHION)	PA
EPA 622	BOLSTAR (SULPROFOS)	PA
EPA 622	CHLORPYRIFOS	PA
EPA 622	DEMETON-O	PA
EPA 622	DEMETON-S	PA
EPA 622	DIAZINON	PA
EPA 622	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 622	DISULFOTON	PA
EPA 622	ETHOPROP	PA
EPA 622	FENSULFOTHION	PA
EPA 622	FENTHION	PA
EPA 622	MERPHOS	PA
EPA 622	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 622	MEVINPHOS	PA
EPA 622	NALED	PA
EPA 622	PHORATE	PA
EPA 622	STIROFOS	PA
EPA 624	1,1,1-TRICHLOROETHANE	PA
EPA 624	1,1,2,2-TETRACHLOROETHANE	PA
EPA 624	1,1,2-TRICHLOROETHANE	PA
EPA 624	1,1-DICHLOROETHANE	PA
EPA 624	1,2-DICHLOROBENZENE	PA
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 624	1,2-DICHLOROPROPANE	PA
EPA 624	1,3-DICHLOROBENZENE	PA
EPA 624	1,4-DICHLOROBENZENE	PA
EPA 624	2-CHLOROETHYL VINYL ETHER	PA
EPA 624	ACROLEIN (PROPENAL)	PA
EPA 624	ACRYLONITRILE	PA
EPA 624	BENZENE	PA
EPA 624	BROMODICHLOROMETHANE	PA
EPA 624	BROMOFORM	PA
EPA 624	CARBON TETRACHLORIDE	PA
EPA 624	CHLOROBENZENE	PA
EPA 624	CHLORODIBROMOMETHANE	PA
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 624	CHLOROFORM	PA
EPA 624	CIS-1,3-DICHLOROPROPENE	PA
EPA 624	ETHYLBENZENE	PA
EPA 624	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	PA

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METHOD	ANALYTE	PRIMARY
EPA 624	TOLUENE	PA
EPA 624	TRANS-1,3-DICHLOROPROPENE	PA
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	PA
EPA 625	2,2'-OXYBIS(1-CHLOROPROPANE)	PA
EPA 625	2,4-DICHLOROPHENOL	PA
EPA 625	2,4-DINITROPHENOL	PA
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 625	2-CHLOROPHENOL	PA
EPA 625	2-METHYLPHENOL (O-CRESOL)	PA
EPA 625	3,3'-DICHLOROBENZIDINE	PA
EPA 625	4-CHLORO-3-METHYLPHENOL	PA
EPA 625	4-NITROPHENOL	PA
EPA 625	ACENAPHTHYLENE	PA
EPA 625	BENZIDINE	PA
EPA 625	BENZO(A)PYRENE	PA
EPA 625	BENZO(G,H,I)PERYLENE	PA
EPA 625	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 625	CHRYSENE	PA
EPA 625	DI-N-OCTYL PHTHALATE	PA
EPA 625	DIETHYL PHTHALATE	PA
EPA 625	FLUORANTHENE	PA
EPA 625	HEXACHLOROBENZENE	PA
EPA 625	HEXACHLOROCYCLOPENTADIENE	PA
EPA 625	INDENO(1,2,3-CD) PYRENE	PA
EPA 625	N-NITROSODI-N-PROPYLAMINE	PA
EPA 625	N-NITROSODIPHENYLAMINE	PA
EPA 625	NITROBENZENE	PA
EPA 625	PHENANTHRENE	PA
EPA 625	PYRENE	PA
EPA 625 - EXTENDED	4-METHYLPHENOL (P-CRESOL)	PA
EPA 625 - EXTENDED	ANILINE	PA
EPA 625 - EXTENDED	N-DECANE	PA

METHOD	ANALYTE	PRIMARY
EPA 624	TRANS-1,2-DICHLOROETHENE	PA
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 624	VINYL CHLORIDE	PA
EPA 625	1,2,4-TRICHLOROBENZENE	PA
EPA 625	2,4,6-TRICHLOROPHENOL	PA
EPA 625	2,4-DIMETHYLPHENOL	PA
EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 625	2-CHLORONAPHTHALENE	PA
EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 625	2-NITROPHENOL	PA
EPA 625	4-BROMOPHENYL PHENYL ETHER	PA
EPA 625	4-CHLOROPHENYL PHENYLETHER	PA
EPA 625	ACENAPHTHENE	PA
EPA 625	ANTHRACENE	PA
EPA 625	BENZO(A)ANTHRACENE	PA
EPA 625	BENZO(B)FLUORANTHENE	PA
EPA 625	BENZO(K)FLUORANTHENE	PA
EPA 625	BIS(2-CHLOROETHYL) ETHER	PA
EPA 625	BUTYL BENZYL PHTHALATE	PA
EPA 625	DI-N-BUTYL PHTHALATE	PA
EPA 625	DIBENZO(A,H) ANTHRACENE	PA
EPA 625	DIMETHYL PHTHALATE	PA
EPA 625	FLUORENE	PA
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 625	HEXACHLOROETHANE	PA
EPA 625	ISOPHORONE	PA
EPA 625	N-NITROSODIMETHYLAMINE	PA
EPA 625	NAPHTHALENE	PA
EPA 625	PENTACHLOROPHENOL	PA
EPA 625	PHENOL	PA
EPA 625 - EXTENDED	1,2-DIPHENYLHYDRAZINE	PA
EPA 625 - EXTENDED	ACETOPHENONE	PA
EPA 625 - EXTENDED	CARBAZOLE	PA
EPA 625 - EXTENDED	N-OCTADECANE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 625 - EXTENDED	PYRIDINE	PA
EPA 7196 A	CHROMIUM VI	PA
EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 B	ETHYLENE GLYCOL	PA
EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 C	ETHYLENE GLYCOL	PA
EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8021 B	BENZENE	PA
EPA 8021 B	ISOPROPYLBENZENE	PA
EPA 8021 B	NAPHTHALENE	PA
EPA 8021 B	TOLUENE	PA
EPA 8021 B - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8081 A	4,4'-DDE	PA
EPA 8081 A	ALDRIN	PA
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA
EPA 8081 A	CHLORDANE (TECH.)	PA
EPA 8081 A	DIELDRIN	PA
EPA 8081 A	ENDOSULFAN II	PA
EPA 8081 A	ENDRIN	PA
EPA 8081 A	ENDRIN KETONE	PA
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 A	HEPTACHLOR EPOXIDE	PA
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 B	4,4'-DDD	PA
EPA 8081 B	4,4'-DDT	PA
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 6850	PERCHLORATE	PA
EPA 7470 A	MERCURY	PA
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8015 B	ETHANOL	PA
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8015 B	METHANOL	PA
EPA 8015 C	ETHANOL	PA
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8015 C	METHANOL	PA
EPA 8021 B	ETHYLBENZENE	PA
EPA 8021 B	M+P-XYLENE	PA
EPA 8021 B	O-XYLENE	PA
EPA 8021 B	XYLENE (TOTAL)	PA
EPA 8081 A	4,4'-DDD	PA
EPA 8081 A	4,4'-DDT	PA
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	DELTA-BHC	PA
EPA 8081 A	ENDOSULFAN I	PA
EPA 8081 A	ENDOSULFAN SULFATE	PA
EPA 8081 A	ENDRIN ALDEHYDE	PA
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	HEPTACHLOR	PA
EPA 8081 A	METHOXYCHLOR	PA
EPA 8081 A - EXTENDED	KEPONE	PA
EPA 8081 B	4,4'-DDE	PA
EPA 8081 B	ALDRIN	PA
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA

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EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	DELTA-BHC	PA
EPA 8081 B	ENDOSULFAN I	PA
EPA 8081 B	ENDOSULFAN SULFATE	PA
EPA 8081 B	ENDRIN ALDEHYDE	PA
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	HEPTACHLOR	PA
EPA 8081 B	METHOXYCHLOR	PA
EPA 8081 B - EXTENDED	KEPONE	PA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	PA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	PA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	PA
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	PA
EPA 8141 A	ATRAZINE	PA
EPA 8141 A	CHLORPYRIFOS	PA
EPA 8141 A	DEMETON-O	PA
EPA 8141 A	DIAZINON	PA
EPA 8141 A	DISULFOTON	PA
EPA 8141 A	ETHOPROP	PA
EPA 8141 A	FENSULFOTHION	PA
EPA 8141 A	MALATHION	PA
EPA 8141 A	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 A	NALED	PA
EPA 8141 A	PHORATE	PA
EPA 8141 A	SIMAZINE	PA
EPA 8141 A	TOKUTHION (PROTHIOPHOS)	PA
EPA 8141 B	ATRAZINE	PA
EPA 8141 B	BOLSTAR (SULPROFOS)	PA
EPA 8141 B	COUMAPHOS	PA
EPA 8141 B	DEMETON-S	PA
EPA 8141 B	DISULFOTON	PA
EPA 8141 B	ETHION	PA

METHOD	ANALYTE	PRIMARY
EPA 8081 B	CHLORDANE (TECH.)	PA
EPA 8081 B	DIELDRIN	PA
EPA 8081 B	ENDOSULFAN II	PA
EPA 8081 B	ENDRIN	PA
EPA 8081 B	ENDRIN KETONE	PA
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 B	HEPTACHLOR EPOXIDE	PA
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8082 A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	PA
EPA 8141 A	BOLSTAR (SULPROFOS)	PA
EPA 8141 A	COUMAPHOS	PA
EPA 8141 A	DEMETON-S	PA
EPA 8141 A	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 A	ETHION	PA
EPA 8141 A	FAMPHUR	PA
EPA 8141 A	FENTHION	PA
EPA 8141 A	MERPHOS	PA
EPA 8141 A	MEVINPHOS	PA
EPA 8141 A	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 A	RONNEL	PA
EPA 8141 A	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 A	TRICHLORONATE	PA
EPA 8141 B	AZINPHOS-METHYL (GUTHION)	PA
EPA 8141 B	CHLORPYRIFOS	PA
EPA 8141 B	DEMETON-O	PA
EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 B	ETHOPROP	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8141 B	FAMPHUR	PA
EPA 8141 B	FENTHION	PA
EPA 8141 B	MERPHOS	PA
EPA 8141 B	MEVINPHOS	PA
EPA 8141 B	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 B	RONNEL	PA
EPA 8141 B	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 B	TRICHLORONATE	PA
EPA 8151 A	2,4-D	PA
EPA 8151 A	DALAPON	PA
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	PA
EPA 8151 A	MCPA	PA
EPA 8151 A	PENTACHLOROPHENOL	PA
EPA 8151 A	SILVEX (2,4,5-TP)	PA
EPA 8260 B	1,1,1-TRICHLOROETHANE	PA
EPA 8260 B	1,1,2-TRICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHYLENE	PA
EPA 8260 B	1,2,3-TRICHLOROBENZENE	PA
EPA 8260 B	1,2,4-TRICHLOROBENZENE	PA
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8260 B	1,2-DICHLOROBENZENE	PA
EPA 8260 B	1,2-DICHLOROPROPANE	PA
EPA 8260 B	1,3-DICHLOROBENZENE	PA
EPA 8260 B	1,4-DICHLOROBENZENE	PA
EPA 8260 B	1-BUTANOL (N-BUTANOL)	PA
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA
EPA 8260 B	2-CHLOROTOLUENE	PA
EPA 8260 B	2-NITROPROPANE	PA
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	PA
EPA 8260 B	ACETONE	PA
EPA 8260 B	ACROLEIN (PROPENAL)	PA
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA
EPA 8260 B	BENZYL CHLORIDE	PA

METHOD	ANALYTE	PRIMARY
EPA 8141 B	FENSULFOTHION	PA
EPA 8141 B	MALATHION	PA
EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 B	NALED	PA
EPA 8141 B	PHORATE	PA
EPA 8141 B	SIMAZINE	PA
EPA 8141 B	TOKUTHION (PROTHIOPHOS)	PA
EPA 8151 A	2,4,5-T	PA
EPA 8151 A	2,4-DB	PA
EPA 8151 A	DICAMBA	PA
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 8151 A	MCPP	PA
EPA 8151 A	PICLORAM	PA
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROPROPENE	PA
EPA 8260 B	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 B	1,3-DICHLOROPROPANE	PA
EPA 8260 B	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	PA
EPA 8260 B	2,2-DICHLOROPROPANE	PA
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 B	2-HEXANONE	PA
EPA 8260 B	4-CHLOROTOLUENE	PA
EPA 8260 B	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	PA
EPA 8260 B	ACETONITRILE	PA
EPA 8260 B	ACRYLONITRILE	PA
EPA 8260 B	BENZENE	PA
EPA 8260 B	BROMOBENZENE	PA

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METHOD	ANALYTE	PRIMARY
EPA 8260 B	BROMOCHLOROMETHANE	PA
EPA 8260 B	BROMOFORM	PA
EPA 8260 B	CARBON TETRACHLORIDE	PA
EPA 8260 B	CHLORODIBROMOMETHANE	PA
EPA 8260 B	CHLOROFORM	PA
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	PA
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 B	DIETHYL ETHER	PA
EPA 8260 B	ETHANOL	PA
EPA 8260 B	ETHYL METHACRYLATE	PA
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 B	ISOPROPYLBENZENE	PA
EPA 8260 B	METHACRYLONITRILE	PA
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8260 B	N-BUTYLBENZENE	PA
EPA 8260 B	N-PROPYLBENZENE	PA
EPA 8260 B	O-XYLENE	PA
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 B	STYRENE	PA
EPA 8260 B	TERT-BUTYLBENZENE	PA
EPA 8260 B	TOLUENE	PA
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 B	VINYL ACETATE	PA
EPA 8260 B	XYLENE (TOTAL)	PA
EPA 8260 B - EXTENDED	CYCLOHEXANE	PA
EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B	BROMODICHLOROMETHANE	PA
EPA 8260 B	CARBON DISULFIDE	PA
EPA 8260 B	CHLOROBENZENE	PA
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 B	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 B	ETHYL ACETATE	PA
EPA 8260 B	ETHYLBENZENE	PA
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	PA
EPA 8260 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8260 B	M+P-XYLENE	PA
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 B	METHYL METHACRYLATE	PA
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 8260 B	N-PROPYLAMINE	PA
EPA 8260 B	NAPHTHALENE	PA
EPA 8260 B	PENTACHLOROETHANE	PA
EPA 8260 B	SEC-BUTYLBENZENE	PA
EPA 8260 B	TERT-BUTYL ALCOHOL	PA
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 B	VINYL CHLORIDE	PA
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 B - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 B - EXTENDED	METHYL ACETATE	PA
EPA 8260 B - EXTENDED	N-HEXANE	PA
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROPROPENE	PA
EPA 8260 C	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 C	1,3-DICHLOROPROPANE	PA
EPA 8260 C	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	PA
EPA 8260 C	2,2-DICHLOROPROPANE	PA
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 C	2-HEXANONE	PA
EPA 8260 C	4-CHLOROTOLUENE	PA
EPA 8260 C	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	PA
EPA 8260 C	ACETONITRILE	PA
EPA 8260 C	ACRYLONITRILE	PA
EPA 8260 C	BENZENE	PA
EPA 8260 C	BROMOBENZENE	PA
EPA 8260 C	BROMODICHLOROMETHANE	PA
EPA 8260 C	CARBON DISULFIDE	PA
EPA 8260 C	CHLOROBENZENE	PA
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 C	DIETHYL ETHER	PA
EPA 8260 C	ETHANOL	PA

METHOD	ANALYTE	PRIMARY
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	PA
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	PA
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8260 C	1,1,1-TRICHLOROETHANE	PA
EPA 8260 C	1,1,2-TRICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROETHYLENE	PA
EPA 8260 C	1,2,3-TRICHLOROBENZENE	PA
EPA 8260 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8260 C	1,2-DICHLOROBENZENE	PA
EPA 8260 C	1,2-DICHLOROPROPANE	PA
EPA 8260 C	1,3-DICHLOROBENZENE	PA
EPA 8260 C	1,4-DICHLOROBENZENE	PA
EPA 8260 C	1-BUTANOL (N-BUTANOL)	PA
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA
EPA 8260 C	2-CHLOROTOLUENE	PA
EPA 8260 C	2-NITROPROPANE	PA
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	PA
EPA 8260 C	ACETONE	PA
EPA 8260 C	ACROLEIN (PROPENAL)	PA
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA
EPA 8260 C	BENZYL CHLORIDE	PA
EPA 8260 C	BROMOCHLOROMETHANE	PA
EPA 8260 C	BROMOFORM	PA
EPA 8260 C	CARBON TETRACHLORIDE	PA
EPA 8260 C	CHLORODIBROMOMETHANE	PA
EPA 8260 C	CHLOROFORM	PA
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	PA
EPA 8260 C	CYCLOHEXANE	PA
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 C	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 C	ETHYL ACETATE	PA

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EPA 8260 C	ETHYL METHACRYLATE	PA
EPA 8260 C	ETHYLBENZENE	PA
EPA 8260 C	HEXACHLOROETHANE	PA
EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 C	ISOPROPYLBENZENE	PA
EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 C	METHYL METHACRYLATE	PA
EPA 8260 C	METHYLCYCLOHEXANE	PA
EPA 8260 C	N-BUTYLBENZENE	PA
EPA 8260 C	NAPHTHALENE	PA
EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 C	STYRENE	PA
EPA 8260 C	TERT-BUTYL ALCOHOL	PA
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 C	VINYL CHLORIDE	PA
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA
EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 C - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8260 C - EXTENDED	N-HEPTANE	PA
EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8270 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 C	1,3-DICHLOROBENZENE	PA
EPA 8270 C	1,4-DICHLOROBENZENE	PA
EPA 8270 C	1,4-NAPHTHOQUINONE	PA
EPA 8270 C	1-CHLORONAPHTHALENE	PA
EPA 8270 C	2,2'-OXYBIS(1-CHLOROPROPANE)	PA

METHOD	ANALYTE	PRIMARY
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	PA
EPA 8260 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8260 C	METHACRYLONITRILE	PA
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 8260 C	N-PROPYLBENZENE	PA
EPA 8260 C	PENTACHLOROETHANE	PA
EPA 8260 C	SEC-BUTYLBENZENE	PA
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 C	TERT-BUTYLBENZENE	PA
EPA 8260 C	TOLUENE	PA
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 C	VINYL ACETATE	PA
EPA 8260 C	XYLENE (TOTAL)	PA
EPA 8260 C - EXTENDED	CYCLOHEXANONE	PA
EPA 8260 C - EXTENDED	DIMETHYL ETHER	PA
EPA 8260 C - EXTENDED	METHYL ACETATE	PA
EPA 8260 C - EXTENDED	T-AMYL ALCOHOL (TAA)	PA
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 C	1,2-DICHLOROBENZENE	PA
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 C	1,4-DINITROBENZENE	PA
EPA 8270 C	1,4-PHENYLENEDIAMINE	PA
EPA 8270 C	1-NAPHTHYLAMINE	PA
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	PA

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NON-POTABLE WATER

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EPA 8270 C	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 C	2,4-DICHLOROPHENOL	PA
EPA 8270 C	2,4-DINITROPHENOL	PA
EPA 8270 C	2,6-DICHLOROPHENOL	PA
EPA 8270 C	2-ACETYLAMINOFLUORENE	PA
EPA 8270 C	2-CHLOROPHENOL	PA
EPA 8270 C	2-METHYLNAPHTHALENE	PA
EPA 8270 C	2-NAPHTHYLAMINE	PA
EPA 8270 C	2-NITROPHENOL	PA
EPA 8270 C	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 C	3-METHYLCHOLANTHRENE	PA
EPA 8270 C	3-NITROANILINE	PA
EPA 8270 C	4-AMINOBIPHENYL	PA
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 C	4-NITROPHENOL	PA
EPA 8270 C	5-NITRO-O-TOLUIDINE	PA
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 C	ACENAPHTHYLENE	PA
EPA 8270 C	ANILINE	PA
EPA 8270 C	ARAMITE	PA
EPA 8270 C	BENZO(A)ANTHRACENE	PA
EPA 8270 C	BENZO(B)FLUORANTHENE	PA
EPA 8270 C	BENZO(K)FLUORANTHENE	PA
EPA 8270 C	BENZYL ALCOHOL	PA
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 C	BUTYL BENZYL PHTHALATE	PA
EPA 8270 C	CHRYSENE	PA
EPA 8270 C	DI-N-OCTYL PHTHALATE	PA
EPA 8270 C	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 C	DIBENZOFURAN	PA
EPA 8270 C	DIMETHOATE	PA
EPA 8270 C	DIPHENYLAMINE	PA
EPA 8270 C	ETHYL METHANESULFONATE	PA
EPA 8270 C	FLUORANTHENE	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 C	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 C	2,4-DIMETHYLPHENOL	PA
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 C	2-CHLORONAPHTHALENE	PA
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 C	2-NITROANILINE	PA
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 C	4-CHLOROANILINE	PA
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 C	4-NITROANILINE	PA
EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	PA
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 C	ACENAPHTHENE	PA
EPA 8270 C	ACETOPHENONE	PA
EPA 8270 C	ANTHRACENE	PA
EPA 8270 C	BENZIDINE	PA
EPA 8270 C	BENZO(A)PYRENE	PA
EPA 8270 C	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C	BENZOIC ACID	PA
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 C	CHLOROBENZILATE	PA
EPA 8270 C	DI-N-BUTYL PHTHALATE	PA
EPA 8270 C	DIALLATE	PA
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C	DIETHYL PHTHALATE	PA
EPA 8270 C	DIMETHYL PHTHALATE	PA
EPA 8270 C	DISULFOTON	PA
EPA 8270 C	FAMPHUR	PA

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 C	FLUORENE	PA
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8270 C	HEXACHLOROETHANE	PA
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 C	ISOPHORONE	PA
EPA 8270 C	KEPONE	PA
EPA 8270 C	METHYL METHANESULFONATE	PA
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	PA
EPA 8270 C	N-NITROSODIETHYLAMINE	PA
EPA 8270 C	N-NITROSODIPHENYLAMINE	PA
EPA 8270 C	N-NITROSOMORPHOLINE	PA
EPA 8270 C	N-NITROSOPYRROLIDINE	PA
EPA 8270 C	NITROBENZENE	PA
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 C	PENTACHLOROBENZENE	PA
EPA 8270 C	PENTACHLOROPHENOL	PA
EPA 8270 C	PHENANTHRENE	PA
EPA 8270 C	PHORATE	PA
EPA 8270 C	PRONAMIDE (KERB)	PA
EPA 8270 C	PYRIDINE	PA
EPA 8270 C	THIONAZIN (ZINOPHOS)	PA
EPA 8270 C	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 C SIM	ACENAPHTHENE	PA
EPA 8270 C SIM	ANTHRACENE	PA
EPA 8270 C SIM	BENZO(A)PYRENE	PA
EPA 8270 C SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C SIM	CHRYSENE	PA
EPA 8270 C SIM	FLUORANTHENE	PA
EPA 8270 C SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 C SIM	PHENANTHRENE	PA
EPA 8270 C SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 D	1,3-DICHLOROBENZENE	PA
EPA 8270 D	1,4-DICHLOROBENZENE	PA
EPA 8270 C	HEXACHLOROBENZENE	PA
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 C	HEXACHLOROPROPENE	PA
EPA 8270 C	ISODRIN	PA
EPA 8270 C	ISOSAFROLE	PA
EPA 8270 C	METHAPYRILENE	PA
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 C	N-NITROSODIMETHYLAMINE	PA
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 C	N-NITROSOPIPERIDINE	PA
EPA 8270 C	NAPHTHALENE	PA
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 C	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 C	PENTACHLORONITROBENZENE	PA
EPA 8270 C	PHENACETIN	PA
EPA 8270 C	PHENOL	PA
EPA 8270 C	PHTHALIC ANHYDRIDE	PA
EPA 8270 C	PYRENE	PA
EPA 8270 C	SAFROLE	PA
EPA 8270 C	THIOPHENOL (BENZENETHIOL)	PA
EPA 8270 C SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 C SIM	ACENAPHTHYLENE	PA
EPA 8270 C SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 C SIM	BENZO(B)FLUORANTHENE	PA
EPA 8270 C SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 C SIM	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C SIM	FLUORENE	PA
EPA 8270 C SIM	NAPHTHALENE	PA
EPA 8270 C SIM	PYRENE	PA
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 D	1,2-DICHLOROBENZENE	PA
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 D	1,4-DINITROBENZENE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	1,4-NAPHTHOQUINONE	PA
EPA 8270 D	1-CHLORONAPHTHALENE	PA
EPA 8270 D	2,2'-OXYBIS(1-CHLOROPROPANE)	PA
EPA 8270 D	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DICHLOROPHENOL	PA
EPA 8270 D	2,4-DINITROPHENOL	PA
EPA 8270 D	2,6-DICHLOROPHENOL	PA
EPA 8270 D	2-ACETYLAMINOFLUORENE	PA
EPA 8270 D	2-CHLOROPHENOL	PA
EPA 8270 D	2-METHYLNAPHTHALENE	PA
EPA 8270 D	2-NAPHTHYLAMINE	PA
EPA 8270 D	2-NITROPHENOL	PA
EPA 8270 D	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 D	3-METHYLCHOLANTHRENE	PA
EPA 8270 D	3-NITROANILINE	PA
EPA 8270 D	4-AMINOBIPHENYL	PA
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 D	4-NITROPHENOL	PA
EPA 8270 D	5-NITRO-O-TOLUIDINE	PA
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 D	ACENAPHTHYLENE	PA
EPA 8270 D	ANILINE	PA
EPA 8270 D	ARAMITE	PA
EPA 8270 D	BENZO(A)ANTHRACENE	PA
EPA 8270 D	BENZO(B)FLUORANTHENE	PA
EPA 8270 D	BENZO(K)FLUORANTHENE	PA
EPA 8270 D	BENZYL ALCOHOL	PA
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 D	BUTYL BENZYL PHTHALATE	PA
EPA 8270 D	CHRYSENE	PA
EPA 8270 D	DI-N-OCTYL PHTHALATE	PA
EPA 8270 D	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 D	DIBENZOFURAN	PA
EPA 8270 D	DIMETHOATE	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 D	1,4-PHENYLENEDIAMINE	PA
EPA 8270 D	1-NAPHTHYLAMINE	PA
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 D	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DIMETHYLPHENOL	PA
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 D	2-CHLORONAPHTHALENE	PA
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 D	2-NITROANILINE	PA
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 D	4-CHLOROANILINE	PA
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 D	4-NITROANILINE	PA
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	PA
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 D	ACENAPHTHENE	PA
EPA 8270 D	ACETOPHENONE	PA
EPA 8270 D	ANTHRACENE	PA
EPA 8270 D	BENZIDINE	PA
EPA 8270 D	BENZO(A)PYRENE	PA
EPA 8270 D	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D	BENZOIC ACID	PA
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 D	CHLOROBENZILATE	PA
EPA 8270 D	DI-N-BUTYL PHTHALATE	PA
EPA 8270 D	DIALLATE	PA
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 D	DIETHYL PHTHALATE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	DIMETHYL PHTHALATE	PA
EPA 8270 D	DIPHENYLAMINE	PA
EPA 8270 D	ETHYL METHANESULFONATE	PA
EPA 8270 D	FLUORANTHENE	PA
EPA 8270 D	HEXACHLOROBENZENE	PA
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 D	HEXACHLOROPROPENE	PA
EPA 8270 D	ISODRIN	PA
EPA 8270 D	ISOSAFROLE	PA
EPA 8270 D	METHAPYRILENE	PA
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 D	N-NITROSODIMETHYLAMINE	PA
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 D	N-NITROSOPIPERIDINE	PA
EPA 8270 D	NAPHTHALENE	PA
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 D	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 D	PENTACHLORONITROBENZENE	PA
EPA 8270 D	PHENACETIN	PA
EPA 8270 D	PHENOL	PA
EPA 8270 D	PHTHALIC ANHYDRIDE	PA
EPA 8270 D	PYRENE	PA
EPA 8270 D	THIONAZIN (ZINOPHOS)	PA
EPA 8270 D - EXTENDED	1,1'-BIPHENYL	PA
EPA 8270 D - EXTENDED	ATRAZINE	PA
EPA 8270 D - EXTENDED	CAPROLACTAM	PA
EPA 8270 D - EXTENDED	PYRIDINE	PA
EPA 8270 D SIM	ACENAPHTHENE	PA
EPA 8270 D SIM	ANTHRACENE	PA
EPA 8270 D SIM	BENZO(A)PYRENE	PA
EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D SIM	CHRYSENE	PA
EPA 8270 D SIM	FLUORENE	PA
EPA 8270 D SIM	NAPHTHALENE	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 8270 D	DISULFOTON	PA
EPA 8270 D	FAMPHUR	PA
EPA 8270 D	FLUORENE	PA
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8270 D	HEXACHLOROETHANE	PA
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D	ISOPHORONE	PA
EPA 8270 D	KEPONE	PA
EPA 8270 D	METHYL METHANESULFONATE	PA
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	PA
EPA 8270 D	N-NITROSODIETHYLAMINE	PA
EPA 8270 D	N-NITROSODIPHENYLAMINE	PA
EPA 8270 D	N-NITROSOMORPHOLINE	PA
EPA 8270 D	N-NITROSOPYRROLIDINE	PA
EPA 8270 D	NITROBENZENE	PA
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 D	PENTACHLOROBENZENE	PA
EPA 8270 D	PENTACHLOROPHENOL	PA
EPA 8270 D	PHENANTHRENE	PA
EPA 8270 D	PHORATE	PA
EPA 8270 D	PRONAMIDE (KERB)	PA
EPA 8270 D	SAFROLE	PA
EPA 8270 D	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D - EXTENDED	BENZALDEHYDE	PA
EPA 8270 D - EXTENDED	CARBAZOLE	PA
EPA 8270 D SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 D SIM	ACENAPHTHYLENE	PA
EPA 8270 D SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 D SIM	BENZO(B)FLUORANTHENE	PA
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 D SIM	FLUORANTHENE	PA
EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D SIM	PHENANTHRENE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D SIM	PYRENE	PA
EPA 8270 D SIM - EXTENDED	DIBENZO(A,H) PYRENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ OFURAN (OCDF)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ OFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P -DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P -DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOF URAN (2,3,4,6,7,8-HXCDF)	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 8315 A	ACETALDEHYDE	PA
EPA 8315 A	BUTYLALDEHYDE (BUTANAL)	PA
EPA 8315 A	FORMALDEHYDE	PA
EPA 8315 A	ISOVALERALDEHYDE	PA
EPA 8315 A	O-TOLUALDEHYDE (1,2-TOLUALDEHYDE)	PA
EPA 8315 A	PENTANAL (VALERALDEHYDE)	PA
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	PA
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8330 A	2-NITROTOLUENE	PA
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	PA
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNIT RAMINE (TETRYL)	PA
EPA 8330 A	NITROGLYCERIN	PA
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	PA
EPA 9012 B	TOTAL CYANIDE	PA
EPA 9050 A	CONDUCTIVITY	PA
EPA 9056 A	CHLORIDE	PA
EPA 9056 A	NITRATE AS N	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 D SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ O-P-DIOXIN (OCDD)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ O-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZ OFURAN (1,2,3,4,7,8,9-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOF URAN (1,2,3,4,7,8-HXCDF)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOF URAN (1,2,3,6,7,8-HXCDF)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOF URAN (1,2,3,7,8,9-HXCDF)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOF URAN (1,2,3,7,8-PECDF)	PA
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOF URAN	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFUR AN (2,3,7,8-TCDF)	PA
EPA 8315 A	BENZALDEHYDE	PA
EPA 8315 A	CROTONALDEHYDE	PA
EPA 8315 A	HEXANALDEHYDE (HEXANAL)	PA
EPA 8315 A	M-TOLUALDEHYDE (1,3-TOLUALDEHYDE)	PA
EPA 8315 A	P-TOLUALDEHYDE (1,4-TOLUALDEHYDE)	PA
EPA 8315 A	PROPIONALDEHYDE (PROPANAL)	PA
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	PA
EPA 8330 A	3-NITROTOLUENE	PA
EPA 8330 A	4-NITROTOLUENE	PA
EPA 8330 A	NITROBENZENE	PA
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	PA
EPA 9012 A	TOTAL CYANIDE	PA
EPA 9040 C	PH	PA
EPA 9056 A	BROMIDE	PA
EPA 9056 A	FLUORIDE	PA
EPA 9056 A	NITRITE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 9056 A	SULFATE	PA
OIA-1677-09	AMENABLE CYANIDE	PA
RSK-175	ETHANE	PA
RSK-175	METHANE	PA
SM 2310 B-1997	ACIDITY, AS CACO3	PA
SM 2340 C-1997	TOTAL HARDNESS AS CACO3	PA
SM 2540 B-1997	RESIDUE-TOTAL	PA
SM 2540 D-1997	RESIDUE-NONFILTERABLE (TSS)	PA
SM 3500-CR B-2009	CHROMIUM VI	PA
SM 4500-F⁻ C-1997	FLUORIDE	PA
SM 4500-NH3 D-1997	AMMONIA AS N	PA
SM 4500-P F-1999	PHOSPHORUS, TOTAL	PA
SM 4500-SIO2 C-1997	SILICA AS SIO2	PA
SM 5210 B-2001	CARBONACEOUS BOD, CBOD	PA
SM 5540 C-2000	SURFACTANTS - MBAS	PA

METHOD	ANALYTE	PRIMARY
EPA 9066	TOTAL PHENOLICS	PA
OIA-1677-09	FREE CYANIDE	PA
RSK-175	ETHENE	PA
SM 2120 B-2001	COLOR	PA
SM 2320 B-1997	ALKALINITY AS CACO3	PA
SM 2510 B-1997	CONDUCTIVITY	PA
SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	PA
SM 2540 F-1997	RESIDUE-SETTLEABLE	PA
SM 4500-F⁻ B-1997	FLUORIDE	PA
SM 4500-NH3 B-1997	AMMONIA AS N	PA
SM 4500-P E-1999	ORTHOPHOSPHATE AS P	PA
SM 4500-S2⁻ D-2000	SULFIDE	PA
SM 5210 B-2001	BIOCHEMICAL OXYGEN DEMAND	PA
SM 5310 C-2000	TOTAL ORGANIC CARBON	PA
SM 9222 D-1997	FECAL COLIFORMS	PA

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	PA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	PA
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	PA
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	PA
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	PA
EPA 1668 A	2,2',3,3',4,4',6-HEPTACHLOROBIPHENYL (BZ-171)	PA
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	PA
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL (BZ-199)	PA
EPA 1668 A	2,2',3,3',4,5,5',6-OCTACHLOROBIPHENYL (BZ-198)	PA
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	PA
EPA 1668 A	2,2',3,3',4,5,6-HEPTACHLOROBIPHENYL (BZ-173)	PA
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	PA

METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PA
EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	PA
EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	PA
EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	PA
EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	PA
EPA 1668 A	2,2',3,3',4,4'-HEXACHLOROBIPHENYL (BZ-128)	PA
EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	PA
EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	PA
EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	PA
EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	PA
EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	PA
EPA 1668 A	2,2',3,3',4,5-HEXACHLOROBIPHENYL (BZ-129)	PA
EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	PA

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	PA
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	PA
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	PA
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	PA
EPA 1668 A	2,2',3,3',5-PENTACHLOROBIPHENYL (BZ-83)	PA
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	PA
EPA 1668 A	2,2',3,4',5',6-HEXACHLOROBIPHENYL (BZ-149)	PA
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	PA
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	PA
EPA 1668 A	2,2',3,4',5,6-HEXACHLOROBIPHENYL (BZ-147)	PA
EPA 1668 A	2,2',3,4',6'-PENTACHLOROBIPHENYL (BZ-98)	PA
EPA 1668 A	2,2',3,4',6-PENTACHLOROBIPHENYL (BZ-91)	PA
EPA 1668 A	2,2',3,4,4',5',6-HEPTACHLOROBIPHENYL (BZ-183)	PA
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	PA
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	PA
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	PA
EPA 1668 A	2,2',3,4,4',6'-HEXACHLOROBIPHENYL (BZ-140)	PA
EPA 1668 A	2,2',3,4,4',6-HEXACHLOROBIPHENYL (BZ-139)	PA
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	PA
EPA 1668 A	2,2',3,4,5,5',6-HEPTACHLOROBIPHENYL (BZ-185)	PA
EPA 1668 A	2,2',3,4,5,6'-HEXACHLOROBIPHENYL (BZ-143)	PA
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	PA
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	PA
EPA 1668 A	2,2',3,4,6-PENTACHLOROBIPHENYL (BZ-88)	PA
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	PA
EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	PA
EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	PA
EPA 1668 A	2,2',3,3',5,6'-HEXACHLOROBIPHENYL (BZ-135)	PA
EPA 1668 A	2,2',3,3',5,6-HEXACHLOROBIPHENYL (BZ-134)	PA
EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	PA
EPA 1668 A	2,2',3,3'-TETRACHLOROBIPHENYL (BZ-40)	PA
EPA 1668 A	2,2',3,4',5'-PENTACHLOROBIPHENYL (BZ-97)	PA
EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	PA
EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	PA
EPA 1668 A	2,2',3,4',5-PENTACHLOROBIPHENYL (BZ-90)	PA
EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	PA
EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	PA
EPA 1668 A	2,2',3,4,4',5'-HEXACHLOROBIPHENYL (BZ-138)	PA
EPA 1668 A	2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-180)	PA
EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	PA
EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	PA
EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	PA
EPA 1668 A	2,2',3,4,4'-PENTACHLOROBIPHENYL (BZ-85)	PA
EPA 1668 A	2,2',3,4,5'-PENTACHLOROBIPHENYL (BZ-87)	PA
EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	PA
EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	PA
EPA 1668 A	2,2',3,4,5-PENTACHLOROBIPHENYL (BZ-86)	PA
EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	PA
EPA 1668 A	2,2',3,4-TETRACHLOROBIPHENYL (BZ-41)	PA
EPA 1668 A	2,2',3,5'-TETRACHLOROBIPHENYL (BZ-44)	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,5,5',6-HEXACHLOROBIPHENYL (BZ-151)	PA
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	PA
EPA 1668 A	2,2',3,5,6-PENTACHLOROBIPHENYL (BZ-93)	PA
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	PA
EPA 1668 A	2,2',3,6-TETRACHLOROBIPHENYL (BZ-45)	PA
EPA 1668 A	2,2',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-153)	PA
EPA 1668 A	2,2',4,4',5-PENTACHLOROBIPHENYL (BZ-99)	PA
EPA 1668 A	2,2',4,4',6-PENTACHLOROBIPHENYL (BZ-100)	PA
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	PA
EPA 1668 A	2,2',4,5,5'-PENTACHLOROBIPHENYL (BZ-101)	PA
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	PA
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	PA
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	PA
EPA 1668 A	2,2',5,6'-TETRACHLOROBIPHENYL (BZ-53)	PA
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	PA
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	PA
EPA 1668 A	2,3',4',5'-TETRACHLOROBIPHENYL (BZ-76)	PA
EPA 1668 A	2,3',4',5-TETRACHLOROBIPHENYL (BZ-70)	PA
EPA 1668 A	2,3',4'-TRICHLOROBIPHENYL (BZ-33)	PA
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	PA
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	PA
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	PA
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	PA
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	PA
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	PA
EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	PA
EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	PA
EPA 1668 A	2,2',3,5-TETRACHLOROBIPHENYL (BZ-43)	PA
EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	PA
EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	PA
EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	PA
EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	PA
EPA 1668 A	2,2',4,4'-TETRACHLOROBIPHENYL (BZ-47)	PA
EPA 1668 A	2,2',4,5'-TETRACHLOROBIPHENYL (BZ-49)	PA
EPA 1668 A	2,2',4,5,6'-PENTACHLOROBIPHENYL (BZ-102)	PA
EPA 1668 A	2,2',4,6'-TETRACHLOROBIPHENYL (BZ-51)	PA
EPA 1668 A	2,2',4,6-TETRACHLOROBIPHENYL (BZ-50)	PA
EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	PA
EPA 1668 A	2,2',5-TRICHLOROBIPHENYL (BZ-18)	PA
EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	PA
EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	PA
EPA 1668 A	2,3',4',5,5'-PENTACHLOROBIPHENYL (BZ-124)	PA
EPA 1668 A	2,3',4',6-TETRACHLOROBIPHENYL (BZ-71)	PA
EPA 1668 A	2,3',4,4',5',6-HEXACHLOROBIPHENYL (BZ-168)	PA
EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	PA
EPA 1668 A	2,3',4,4',6-PENTACHLOROBIPHENYL (BZ-119)	PA
EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	PA
EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	PA
EPA 1668 A	2,3',4,6-TETRACHLOROBIPHENYL (BZ-69)	PA
EPA 1668 A	2,3',5',6-TETRACHLOROBIPHENYL (BZ-73)	PA

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METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	PA
EPA 1668 A	2,3',5-TRICHLOROBIPHENYL (BZ-26)	PA
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	PA
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	PA
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	PA
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	PA
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	PA
EPA 1668 A	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (BZ-157)	PA
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	PA
EPA 1668 A	2,3,3',4,4',5-HEXACHLOROBIPHENYL (BZ-156)	PA
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	PA
EPA 1668 A	2,3,3',4,5'-PENTACHLOROBIPHENYL (BZ-108)	PA
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	PA
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	PA
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	PA
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	PA
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	PA
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	PA
EPA 1668 A	2,3,3'-TRICHLOROBIPHENYL (BZ-20)	PA
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	PA
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	PA
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	PA
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	PA
EPA 1668 A	2,3,4,5-TETRACHLOROBIPHENYL (BZ-61)	PA
EPA 1668 A	2,3,4-TRICHLOROBIPHENYL (BZ-21)	PA
EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	PA
EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	PA
EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	PA
EPA 1668 A	2,3,3',4',5,5',6-HEPTACHLOROBIPHENYL (BZ-193)	PA
EPA 1668 A	2,3,3',4',5,6-HEXACHLOROBIPHENYL (BZ-163)	PA
EPA 1668 A	2,3,3',4',6-PENTACHLOROBIPHENYL (BZ-110)	PA
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	PA
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	PA
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	PA
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	PA
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	PA
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	PA
EPA 1668 A	2,3,3',4,5,6-HEXACHLOROBIPHENYL (BZ-160)	PA
EPA 1668 A	2,3,3',4,6-PENTACHLOROBIPHENYL (BZ-109)	PA
EPA 1668 A	2,3,3',5',6-PENTACHLOROBIPHENYL (BZ-113)	PA
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	PA
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	PA
EPA 1668 A	2,3,3',6-TETRACHLOROBIPHENYL (BZ-59)	PA
EPA 1668 A	2,3,4',5,6-PENTACHLOROBIPHENYL (BZ-117)	PA
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	PA
EPA 1668 A	2,3,4,4',5,6-HEXACHLOROBIPHENYL (BZ-166)	PA
EPA 1668 A	2,3,4,4',6-PENTACHLOROBIPHENYL (BZ-115)	PA
EPA 1668 A	2,3,4,5,6-PENTACHLOROBIPHENYL (BZ-116)	PA
EPA 1668 A	2,3,4,6-TETRACHLOROBIPHENYL (BZ-62)	PA
EPA 1668 A	2,3,5,6-TETRACHLOROBIPHENYL (BZ-65)	PA

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METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	PA
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	PA
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	PA
EPA 1668 A	2,4,4',5-TETRACHLOROBIPHENYL (BZ-74)	PA
EPA 1668 A	2,4,4'-TRICHLOROBIPHENYL (BZ-28)	PA
EPA 1668 A	2,4,6-TRICHLOROBIPHENYL (BZ-30)	PA
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	PA
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	PA
EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	PA
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	PA
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	PA
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	PA
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	PA
EPA 1668 A	3,4'-DICHLOROBIPHENYL (BZ-13)	PA
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	PA
EPA 1668 A	3,4-DICHLOROBIPHENYL (BZ-12)	PA
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	PA
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	PA
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	PA
EPA 3546	PREP: MICROWAVE EXTRACTION	PA
EPA 3620 B	PREP: FLORISIL CLEANUP	PA
EPA 3640 A	PREP: GEL PERMEATION CLEANUP	PA
EPA 3665 A	SULFURIC ACID/PERMANGANATE CLEAN-UP	PA
EPA 5035	PREP: CLOSED-SYSTEM PURGE AND TRAP AND EXTRACTION	PA
EPA 6010 B	ANTIMONY	PA
EPA 6010 B	BARIUM	PA
EPA 6010 B	BORON	PA
EPA 6010 B	CALCIUM	PA
EPA 6010 B	COBALT	PA
EPA 6010 B	IRON	PA
EPA 6010 B	MAGNESIUM	PA
EPA 6010 B	MOLYBDENUM	PA
EPA 6010 B	POTASSIUM	PA

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	PA
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	PA
EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	PA
EPA 1668 A	2,4,4',6-TETRACHLOROBIPHENYL (BZ-75)	PA
EPA 1668 A	2,4,5-TRICHLOROBIPHENYL (BZ-29)	PA
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	PA
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	PA
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	PA
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	PA
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	PA
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	PA
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	PA
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	PA
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	PA
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	PA
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	PA
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	PA
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	PA
EPA 3540 C	PREP: SOXHLET EXTRACTION	PA
EPA 3550 B	PREP: ULTRASONIC EXTRACTION	PA
EPA 3630 C	PREP: SILICA GEL CLEANUP	PA
EPA 3660 B	PREP: SULFUR CLEANUP	PA
EPA 5030 B	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	PA
EPA 6010 B	ALUMINUM	PA
EPA 6010 B	ARSENIC	PA
EPA 6010 B	BERYLLIUM	PA
EPA 6010 B	CADMIUM	PA
EPA 6010 B	CHROMIUM	PA
EPA 6010 B	COPPER	PA
EPA 6010 B	LEAD	PA
EPA 6010 B	MANGANESE	PA
EPA 6010 B	NICKEL	PA
EPA 6010 B	SELENIUM	PA

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METHOD	ANALYTE	PRIMARY
EPA 6010 B	SILVER	PA
EPA 6010 B	STRONTIUM	PA
EPA 6010 B	TIN	PA
EPA 6010 B	VANADIUM	PA
EPA 6010 B - EXTENDED	ZIRCONIUM	PA
EPA 6010 C	ANTIMONY	PA
EPA 6010 C	BARIUM	PA
EPA 6010 C	BORON	PA
EPA 6010 C	CALCIUM	PA
EPA 6010 C	COBALT	PA
EPA 6010 C	IRON	PA
EPA 6010 C	MAGNESIUM	PA
EPA 6010 C	MOLYBDENUM	PA
EPA 6010 C	POTASSIUM	PA
EPA 6010 C	SILVER	PA
EPA 6010 C	STRONTIUM	PA
EPA 6010 C	TIN	PA
EPA 6010 C	VANADIUM	PA
EPA 6010 C - EXTENDED	ZIRCONIUM	PA
EPA 6020 A	ANTIMONY	PA
EPA 6020 A	BERYLLIUM	PA
EPA 6020 A	CALCIUM	PA
EPA 6020 A	COBALT	PA
EPA 6020 A	IRON	PA
EPA 6020 A	MAGNESIUM	PA
EPA 6020 A	NICKEL	PA
EPA 6020 A	SELENIUM	PA
EPA 6020 A	SODIUM	PA
EPA 6020 A	VANADIUM	PA
EPA 6020 A - EXTENDED	BORON	PA
EPA 6020 A - EXTENDED	TIN	PA
EPA 6850	PERCHLORATE	PA
EPA 7471 A	MERCURY	PA
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 B	ETHYLENE GLYCOL	PA
EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 C	ETHANOL	PA

METHOD	ANALYTE	PRIMARY
EPA 6010 B	SODIUM	PA
EPA 6010 B	THALLIUM	PA
EPA 6010 B	TITANIUM	PA
EPA 6010 B	ZINC	PA
EPA 6010 C	ALUMINUM	PA
EPA 6010 C	ARSENIC	PA
EPA 6010 C	BERYLLIUM	PA
EPA 6010 C	CADMIUM	PA
EPA 6010 C	CHROMIUM	PA
EPA 6010 C	COPPER	PA
EPA 6010 C	LEAD	PA
EPA 6010 C	MANGANESE	PA
EPA 6010 C	NICKEL	PA
EPA 6010 C	SELENIUM	PA
EPA 6010 C	SODIUM	PA
EPA 6010 C	THALLIUM	PA
EPA 6010 C	TITANIUM	PA
EPA 6010 C	ZINC	PA
EPA 6020 A	ALUMINUM	PA
EPA 6020 A	ARSENIC	PA
EPA 6020 A	CADMIUM	PA
EPA 6020 A	CHROMIUM	PA
EPA 6020 A	COPPER	PA
EPA 6020 A	LEAD	PA
EPA 6020 A	MANGANESE	PA
EPA 6020 A	POTASSIUM	PA
EPA 6020 A	SILVER	PA
EPA 6020 A	THALLIUM	PA
EPA 6020 A	ZINC	PA
EPA 6020 A - EXTENDED	STRONTIUM	PA
EPA 6020 A - EXTENDED	TITANIUM	PA
EPA 7196 A	CHROMIUM VI	PA
EPA 7471 B	MERCURY	PA
EPA 8015 B	ETHANOL	PA
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8015 B	METHANOL	PA
EPA 8015 C	ETHYLENE GLYCOL	PA

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EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8021 B	BENZENE	PA
EPA 8021 B	ISOPROPYLBENZENE	PA
EPA 8021 B	NAPHTHALENE	PA
EPA 8021 B	TOLUENE	PA
EPA 8021 B - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8081 A	4,4'-DDE	PA
EPA 8081 A	ALDRIN	PA
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA
EPA 8081 A	CHLORDANE (TECH.)	PA
EPA 8081 A	DIELDRIN	PA
EPA 8081 A	ENDOSULFAN II	PA
EPA 8081 A	ENDRIN	PA
EPA 8081 A	ENDRIN KETONE	PA
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 A	HEPTACHLOR EPOXIDE	PA
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 B	4,4'-DDE	PA
EPA 8081 B	ALDRIN	PA
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA
EPA 8081 B	CHLORDANE (TECH.)	PA
EPA 8081 B	DIELDRIN	PA
EPA 8081 B	ENDOSULFAN II	PA
EPA 8081 B	ENDRIN	PA
EPA 8081 B	ENDRIN KETONE	PA
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 B	HEPTACHLOR EPOXIDE	PA

METHOD	ANALYTE	PRIMARY
EPA 8015 C	METHANOL	PA
EPA 8021 B	ETHYLBENZENE	PA
EPA 8021 B	M+P-XYLENE	PA
EPA 8021 B	O-XYLENE	PA
EPA 8021 B	XYLENE (TOTAL)	PA
EPA 8081 A	4,4'-DDD	PA
EPA 8081 A	4,4'-DDT	PA
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	DELTA-BHC	PA
EPA 8081 A	ENDOSULFAN I	PA
EPA 8081 A	ENDOSULFAN SULFATE	PA
EPA 8081 A	ENDRIN ALDEHYDE	PA
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	HEPTACHLOR	PA
EPA 8081 A	METHOXYCHLOR	PA
EPA 8081 B	4,4'-DDD	PA
EPA 8081 B	4,4'-DDT	PA
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	DELTA-BHC	PA
EPA 8081 B	ENDOSULFAN I	PA
EPA 8081 B	ENDOSULFAN SULFATE	PA
EPA 8081 B	ENDRIN ALDEHYDE	PA
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	HEPTACHLOR	PA
EPA 8081 B	METHOXYCHLOR	PA

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EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 B - EXTENDED	MIREX	PA
EPA 8082 - OIL A	AROCLOR-1221 (PCB-1221)	PA
EPA 8082 - OIL A	AROCLOR-1242 (PCB-1242)	PA
EPA 8082 - OIL A	AROCLOR-1254 (PCB-1254)	PA
EPA 8082 A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	PA
EPA 8141 A	BOLSTAR (SULPROFOS)	PA
EPA 8141 A	COUMAPHOS	PA
EPA 8141 A	DEMETON-S	PA
EPA 8141 A	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 A	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 A	ETHOPROP	PA
EPA 8141 A	FENSULFOTHION	PA
EPA 8141 A	MALATHION	PA
EPA 8141 A	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 A	NALED	PA
EPA 8141 A	PHORATE	PA
EPA 8141 A	SIMAZINE	PA
EPA 8141 A	TOKUTHION (PROTHIOPHOS)	PA
EPA 8141 B	ATRAZINE	PA
EPA 8141 B	COUMAPHOS	PA
EPA 8141 B	DEMETON-S	PA
EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 B	ETHOPROP	PA
EPA 8141 B	FENSULFOTHION	PA
EPA 8141 B	MALATHION	PA
EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 B	NALED	PA

METHOD	ANALYTE	PRIMARY
EPA 8081 B - EXTENDED	KEPONE	PA
EPA 8082 - OIL A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 - OIL A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 - OIL A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 - OIL A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	PA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	PA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	PA
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	PA
EPA 8141 A	ATRAZINE	PA
EPA 8141 A	CHLORPYRIFOS	PA
EPA 8141 A	DEMETON-O	PA
EPA 8141 A	DIAZINON	PA
EPA 8141 A	DISULFOTON	PA
EPA 8141 A	ETHION	PA
EPA 8141 A	FAMPHUR	PA
EPA 8141 A	FENTHION	PA
EPA 8141 A	MERPHOS	PA
EPA 8141 A	MEVINPHOS	PA
EPA 8141 A	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 A	RONNEL	PA
EPA 8141 A	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 A	TRICHLORONATE	PA
EPA 8141 B	BOLSTAR (SULPROFOS)	PA
EPA 8141 B	DEMETON-O	PA
EPA 8141 B	DIAZINON	PA
EPA 8141 B	DISULFOTON	PA
EPA 8141 B	ETHION	PA
EPA 8141 B	FAMPHUR	PA
EPA 8141 B	FENTHION	PA
EPA 8141 B	MERPHOS	PA
EPA 8141 B	MEVINPHOS	PA
EPA 8141 B	PARATHION (PARATHION - ETHYL)	PA

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EPA 8141 B	PHORATE	PA
EPA 8141 B	SIMAZINE	PA
EPA 8141 B	TOKUTHION (PROTHIOPHOS)	PA
EPA 8151 A	2,4,5-T	PA
EPA 8151 A	2,4-DB	PA
EPA 8151 A	DICAMBA	PA
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 8151 A	MCPP	PA
EPA 8151 A	PICLORAM	PA
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROPROPENE	PA
EPA 8260 B	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 B	1,3-DICHLOROPROPANE	PA
EPA 8260 B	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	PA
EPA 8260 B	2,2-DICHLOROPROPANE	PA
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 B	2-HEXANONE	PA
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	PA
EPA 8260 B	ACETONE	PA
EPA 8260 B	ACROLEIN (PROPENAL)	PA
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA
EPA 8260 B	BENZYL CHLORIDE	PA
EPA 8260 B	BROMOCHLOROMETHANE	PA
EPA 8260 B	BROMOFORM	PA
EPA 8260 B	CARBON TETRACHLORIDE	PA
EPA 8260 B	CHLORODIBROMOMETHANE	PA

METHOD	ANALYTE	PRIMARY
EPA 8141 B	RONNEL	PA
EPA 8141 B	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 B	TRICHLORONATE	PA
EPA 8151 A	2,4-D	PA
EPA 8151 A	DALAPON	PA
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	PA
EPA 8151 A	MCPA	PA
EPA 8151 A	PENTACHLOROPHENOL	PA
EPA 8151 A	SILVEX (2,4,5-TP)	PA
EPA 8260 B	1,1,1-TRICHLOROETHANE	PA
EPA 8260 B	1,1,2-TRICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHYLENE	PA
EPA 8260 B	1,2,3-TRICHLOROBENZENE	PA
EPA 8260 B	1,2,4-TRICHLOROBENZENE	PA
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8260 B	1,2-DICHLOROBENZENE	PA
EPA 8260 B	1,2-DICHLOROPROPANE	PA
EPA 8260 B	1,3-DICHLOROBENZENE	PA
EPA 8260 B	1,4-DICHLOROBENZENE	PA
EPA 8260 B	1-BUTANOL (N-BUTANOL)	PA
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA
EPA 8260 B	2-CHLOROTOLUENE	PA
EPA 8260 B	4-CHLOROTOLUENE	PA
EPA 8260 B	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	PA
EPA 8260 B	ACETONITRILE	PA
EPA 8260 B	ACRYLONITRILE	PA
EPA 8260 B	BENZENE	PA
EPA 8260 B	BROMOBENZENE	PA
EPA 8260 B	BROMODICHLOROMETHANE	PA
EPA 8260 B	CARBON DISULFIDE	PA
EPA 8260 B	CHLOROBENZENE	PA
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	PA

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METHOD	ANALYTE	PRIMARY
EPA 8260 B	CHLOROFORM	PA
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	PA
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 B	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 B	ETHYL ACETATE	PA
EPA 8260 B	ETHYLBENZENE	PA
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	PA
EPA 8260 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8260 B	M+P-XYLENE	PA
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 B	METHYL METHACRYLATE	PA
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 8260 B	N-PROPYLBENZENE	PA
EPA 8260 B	O-XYLENE	PA
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 B	STYRENE	PA
EPA 8260 B	TERT-BUTYLBENZENE	PA
EPA 8260 B	TOLUENE	PA
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 B	VINYL ACETATE	PA
EPA 8260 B	XYLENE (TOTAL)	PA
EPA 8260 B - EXTENDED	CYCLOHEXANE	PA
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 B - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	PA
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	PA

METHOD	ANALYTE	PRIMARY
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 B	ETHANOL	PA
EPA 8260 B	ETHYL METHACRYLATE	PA
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 B	ISOPROPYLBENZENE	PA
EPA 8260 B	METHACRYLONITRILE	PA
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8260 B	N-BUTYLBENZENE	PA
EPA 8260 B	NAPHTHALENE	PA
EPA 8260 B	PENTACHLOROETHANE	PA
EPA 8260 B	SEC-BUTYLBENZENE	PA
EPA 8260 B	TERT-BUTYL ALCOHOL	PA
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 B	VINYL CHLORIDE	PA
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA
EPA 8260 B - EXTENDED	CYCLOHEXANONE	PA
EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B - EXTENDED	METHYL ACETATE	PA
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	PA
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8260 C	1,1,1-TRICHLOROETHANE	PA
EPA 8260 C	1,1,2-TRICHLOROETHANE	PA

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EPA 8260 C	1,1-DICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROPROPENE	PA
EPA 8260 C	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 C	1,3-DICHLOROPROPANE	PA
EPA 8260 C	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	PA
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA
EPA 8260 C	2-CHLOROTOLUENE	PA
EPA 8260 C	4-CHLOROTOLUENE	PA
EPA 8260 C	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	PA
EPA 8260 C	ACETONITRILE	PA
EPA 8260 C	ACRYLONITRILE	PA
EPA 8260 C	BENZENE	PA
EPA 8260 C	BROMOBENZENE	PA
EPA 8260 C	BROMODICHLOROMETHANE	PA
EPA 8260 C	CARBON DISULFIDE	PA
EPA 8260 C	CHLOROBENZENE	PA
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 C	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 C	ETHYL ACETATE	PA
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 C	ISOPROPYLBENZENE	PA
EPA 8260 C	1,1-DICHLOROETHYLENE	PA
EPA 8260 C	1,2,3-TRICHLOROBENZENE	PA
EPA 8260 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8260 C	1,2-DICHLOROBENZENE	PA
EPA 8260 C	1,2-DICHLOROPROPANE	PA
EPA 8260 C	1,3-DICHLOROBENZENE	PA
EPA 8260 C	1,4-DICHLOROBENZENE	PA
EPA 8260 C	2,2-DICHLOROPROPANE	PA
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 C	2-HEXANONE	PA
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	PA
EPA 8260 C	ACETONE	PA
EPA 8260 C	ACROLEIN (PROPENAL)	PA
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA
EPA 8260 C	BENZYL CHLORIDE	PA
EPA 8260 C	BROMOCHLOROMETHANE	PA
EPA 8260 C	BROMOFORM	PA
EPA 8260 C	CARBON TETRACHLORIDE	PA
EPA 8260 C	CHLORODIBROMOMETHANE	PA
EPA 8260 C	CHLOROFORM	PA
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	PA
EPA 8260 C	CYCLOHEXANE	PA
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 C	ETHANOL	PA
EPA 8260 C	ETHYL METHACRYLATE	PA
EPA 8260 C	ETHYLBENZENE	PA
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	PA
EPA 8260 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA

Commonwealth of Virginia

Department of General Services
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Eurofins Lancaster Laboratories Environmental, LLC
2425 New Holland Pike
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Virginia Laboratory ID: 460182
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 C	METHACRYLONITRILE	PA
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 8260 C	N-PROPYLBENZENE	PA
EPA 8260 C	PENTACHLOROETHANE	PA
EPA 8260 C	SEC-BUTYLBENZENE	PA
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 C	VINYL CHLORIDE	PA
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA
EPA 8260 C - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8260 C - EXTENDED	T-AMYL ALCOHOL (TAA)	PA
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 C	1,2-DICHLOROBENZENE	PA
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 C	1,3-DICHLOROBENZENE	PA
EPA 8270 C	1,4-DICHLOROBENZENE	PA
EPA 8270 C	1,4-NAPHTHOQUINONE	PA
EPA 8270 C	1-CHLORONAPHTHALENE	PA
EPA 8270 C	2,2'-OXYBIS(1-CHLOROPROPANE)	PA
EPA 8270 C	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 C	2,4-DICHLOROPHENOL	PA
EPA 8270 C	2,4-DINITROPHENOL	PA
EPA 8270 C	2,6-DICHLOROPHENOL	PA
EPA 8270 C	2-ACETYLAMINOFLUORENE	PA
EPA 8270 C	2-CHLOROPHENOL	PA
EPA 8270 C	2-METHYLNAPHTHALENE	PA
EPA 8270 C	2-NAPHTHYLAMINE	PA

METHOD	ANALYTE	PRIMARY
EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 C	METHYL METHACRYLATE	PA
EPA 8260 C	METHYLCYCLOHEXANE	PA
EPA 8260 C	N-BUTYLBENZENE	PA
EPA 8260 C	NAPHTHALENE	PA
EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 C	STYRENE	PA
EPA 8260 C	TERT-BUTYL ALCOHOL	PA
EPA 8260 C	TOLUENE	PA
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 C	VINYL ACETATE	PA
EPA 8260 C	XYLENE (TOTAL)	PA
EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 C - EXTENDED	METHYL ACETATE	PA
EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8270 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 C	1,2-DINITROBENZENE	PA
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 C	1,4-DINITROBENZENE	PA
EPA 8270 C	1,4-PHENYLENEDIAMINE	PA
EPA 8270 C	1-NAPHTHYLAMINE	PA
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 C	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 C	2,4-DIMETHYLPHENOL	PA
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 C	2-CHLORONAPHTHALENE	PA
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 C	2-NITROANILINE	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-NITROPHENOL	PA
EPA 8270 C	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 C	4-CHLOROANILINE	PA
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 C	4-NITROANILINE	PA
EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	PA
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 C	ACENAPHTHENE	PA
EPA 8270 C	ACETOPHENONE	PA
EPA 8270 C	ANTHRACENE	PA
EPA 8270 C	BENZIDINE	PA
EPA 8270 C	BENZO(A)PYRENE	PA
EPA 8270 C	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C	BENZOIC ACID	PA
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 C	CHLOROBENZILATE	PA
EPA 8270 C	DI-N-BUTYL PHTHALATE	PA
EPA 8270 C	DIALLATE	PA
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C	DIETHYL PHTHALATE	PA
EPA 8270 C	DIMETHYL PHTHALATE	PA
EPA 8270 C	DISULFOTON	PA
EPA 8270 C	FAMPHUR	PA
EPA 8270 C	FLUORENE	PA
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8270 C	HEXACHLOROETHANE	PA
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 C	ISOPHORONE	PA
EPA 8270 C	KEPONE	PA
EPA 8270 C	METHYL METHANESULFONATE	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 C	3,3'-DIMETHOXYBENZIDINE	PA
EPA 8270 C	3-METHYLCHOLANTHRENE	PA
EPA 8270 C	3-NITROANILINE	PA
EPA 8270 C	4-AMINOBIPHENYL	PA
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 C	4-NITROPHENOL	PA
EPA 8270 C	5-NITRO-O-TOLUIDINE	PA
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 C	ACENAPHTHYLENE	PA
EPA 8270 C	ANILINE	PA
EPA 8270 C	ARAMITE	PA
EPA 8270 C	BENZO(A)ANTHRACENE	PA
EPA 8270 C	BENZO(B)FLUORANTHENE	PA
EPA 8270 C	BENZO(K)FLUORANTHENE	PA
EPA 8270 C	BENZYL ALCOHOL	PA
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 C	BUTYL BENZYL PHTHALATE	PA
EPA 8270 C	CHRYSENE	PA
EPA 8270 C	DI-N-OCTYL PHTHALATE	PA
EPA 8270 C	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 C	DIBENZOFURAN	PA
EPA 8270 C	DIMETHOATE	PA
EPA 8270 C	DIPHENYLAMINE	PA
EPA 8270 C	ETHYL METHANESULFONATE	PA
EPA 8270 C	FLUORANTHENE	PA
EPA 8270 C	HEXACHLOROBENZENE	PA
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 C	HEXACHLOROPROPENE	PA
EPA 8270 C	ISODRIN	PA
EPA 8270 C	ISOSAFROLE	PA
EPA 8270 C	METHAPYRILENE	PA
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	PA
EPA 8270 C	N-NITROSODIETHYLAMINE	PA
EPA 8270 C	N-NITROSODIPHENYLAMINE	PA
EPA 8270 C	N-NITROSOMORPHOLINE	PA
EPA 8270 C	N-NITROSOPYRROLIDINE	PA
EPA 8270 C	NITROBENZENE	PA
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 C	PENTACHLOROBENZENE	PA
EPA 8270 C	PENTACHLOROPHENOL	PA
EPA 8270 C	PHENANTHRENE	PA
EPA 8270 C	PHORATE	PA
EPA 8270 C	PRONAMIDE (KERB)	PA
EPA 8270 C	PYRIDINE	PA
EPA 8270 C	THIONAZIN (ZINOPHOS)	PA
EPA 8270 C SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 C SIM	ACENAPHTHYLENE	PA
EPA 8270 C SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 C SIM	BENZO(B)FLUORANTHENE	PA
EPA 8270 C SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 C SIM	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C SIM	FLUORENE	PA
EPA 8270 C SIM	NAPHTHALENE	PA
EPA 8270 C SIM	PYRENE	PA
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 D	1,2-DICHLOROBENZENE	PA
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 D	1,3-DICHLOROBENZENE	PA
EPA 8270 D	1,4-DICHLOROBENZENE	PA
EPA 8270 D	1,4-NAPHTHOQUINONE	PA
EPA 8270 D	1-CHLORONAPHTHALENE	PA
EPA 8270 D	2,2'-OXYBIS(1-CHLOROPROPANE)	PA
EPA 8270 D	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DICHLOROPHENOL	PA
EPA 8270 D	2,4-DINITROPHENOL	PA
EPA 8270 D	2,6-DICHLOROPHENOL	PA
EPA 8270 D	2-ACETYLAMINOFLUORENE	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 C	N-NITROSODIMETHYLAMINE	PA
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 C	N-NITROSOPIPERIDINE	PA
EPA 8270 C	NAPHTHALENE	PA
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 C	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 C	PENTACHLORONITROBENZENE	PA
EPA 8270 C	PHENACETIN	PA
EPA 8270 C	PHENOL	PA
EPA 8270 C	PHTHALIC ANHYDRIDE	PA
EPA 8270 C	PYRENE	PA
EPA 8270 C	SAFROLE	PA
EPA 8270 C	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 C SIM	ACENAPHTHENE	PA
EPA 8270 C SIM	ANTHRACENE	PA
EPA 8270 C SIM	BENZO(A)PYRENE	PA
EPA 8270 C SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C SIM	CHRYSENE	PA
EPA 8270 C SIM	FLUORANTHENE	PA
EPA 8270 C SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 C SIM	PHENANTHRENE	PA
EPA 8270 C SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 D	1,2-DINITROBENZENE	PA
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 D	1,4-DINITROBENZENE	PA
EPA 8270 D	1,4-PHENYLENEDIAMINE	PA
EPA 8270 D	1-NAPHTHYLAMINE	PA
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 D	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DIMETHYLPHENOL	PA
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 D	2-CHLORONAPHTHALENE	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	2-CHLOROPHENOL	PA
EPA 8270 D	2-METHYLNAPHTHALENE	PA
EPA 8270 D	2-NAPHTHYLAMINE	PA
EPA 8270 D	2-NITROPHENOL	PA
EPA 8270 D	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 D	4-CHLOROANILINE	PA
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 D	4-NITROANILINE	PA
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	PA
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 D	ACENAPHTHENE	PA
EPA 8270 D	ACETOPHENONE	PA
EPA 8270 D	ANTHRACENE	PA
EPA 8270 D	BENZIDINE	PA
EPA 8270 D	BENZO(A)PYRENE	PA
EPA 8270 D	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D	BENZOIC ACID	PA
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 D	CHLOROBENZILATE	PA
EPA 8270 D	DI-N-BUTYL PHTHALATE	PA
EPA 8270 D	DIALLATE	PA
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 D	DIETHYL PHTHALATE	PA
EPA 8270 D	DIMETHYL PHTHALATE	PA
EPA 8270 D	DISULFOTON	PA
EPA 8270 D	FAMPHUR	PA
EPA 8270 D	FLUORENE	PA
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8270 D	HEXACHLOROETHANE	PA
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	PA

METHOD	ANALYTE	PRIMARY
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 D	2-NITROANILINE	PA
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 D	3,3'-DIMETHOXYBENZIDINE	PA
EPA 8270 D	3-METHYLCHOLANTHRENE	PA
EPA 8270 D	3-NITROANILINE	PA
EPA 8270 D	4-AMINOBIPHENYL	PA
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 D	4-NITROPHENOL	PA
EPA 8270 D	5-NITRO-O-TOLUIDINE	PA
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 D	ACENAPHTHYLENE	PA
EPA 8270 D	ANILINE	PA
EPA 8270 D	ARAMITE	PA
EPA 8270 D	BENZO(A)ANTHRACENE	PA
EPA 8270 D	BENZO(B)FLUORANTHENE	PA
EPA 8270 D	BENZO(K)FLUORANTHENE	PA
EPA 8270 D	BENZYL ALCOHOL	PA
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 D	BUTYL BENZYL PHTHALATE	PA
EPA 8270 D	CHRYSENE	PA
EPA 8270 D	DI-N-OCTYL PHTHALATE	PA
EPA 8270 D	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 D	DIBENZOFURAN	PA
EPA 8270 D	DIMETHOATE	PA
EPA 8270 D	DIPHENYLAMINE	PA
EPA 8270 D	ETHYL METHANESULFONATE	PA
EPA 8270 D	FLUORANTHENE	PA
EPA 8270 D	HEXACHLOROBENZENE	PA
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 D	HEXACHLOROPROPENE	PA
EPA 8270 D	ISODRIN	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	ISOPHORONE	PA
EPA 8270 D	KEPONE	PA
EPA 8270 D	METHYL METHANESULFONATE	PA
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	PA
EPA 8270 D	N-NITROSODIETHYLAMINE	PA
EPA 8270 D	N-NITROSODIPHENYLAMINE	PA
EPA 8270 D	N-NITROSOMORPHOLINE	PA
EPA 8270 D	N-NITROSOPYRROLIDINE	PA
EPA 8270 D	NITROBENZENE	PA
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 D	PENTACHLOROBENZENE	PA
EPA 8270 D	PENTACHLOROPHENOL	PA
EPA 8270 D	PHENANTHRENE	PA
EPA 8270 D	PHORATE	PA
EPA 8270 D	PRONAMIDE (KERB)	PA
EPA 8270 D	SAFROLE	PA
EPA 8270 D	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D - EXTENDED	BENZALDEHYDE	PA
EPA 8270 D - EXTENDED	CAPROLACTAM	PA
EPA 8270 D - EXTENDED	PYRIDINE	PA
EPA 8270 D SIM	ACENAPHTHENE	PA
EPA 8270 D SIM	ANTHRACENE	PA
EPA 8270 D SIM	BENZO(A)PYRENE	PA
EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D SIM	CHRYSENE	PA
EPA 8270 D SIM	FLUORANTHENE	PA
EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D SIM	PHENANTHRENE	PA
EPA 8270 D SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ OFURAN (OCDF)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ OFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P -DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 8270 D	ISOSAFROLE	PA
EPA 8270 D	METHAPYRILENE	PA
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 D	N-NITROSODIMETHYLAMINE	PA
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 D	N-NITROSOPIPERIDINE	PA
EPA 8270 D	NAPHTHALENE	PA
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 D	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 D	PENTACHLORONITROBENZENE	PA
EPA 8270 D	PHENACETIN	PA
EPA 8270 D	PHENOL	PA
EPA 8270 D	PHTHALIC ANHYDRIDE	PA
EPA 8270 D	PYRENE	PA
EPA 8270 D	THIONAZIN (ZINOPHOS)	PA
EPA 8270 D - EXTENDED	1,1'-BIPHENYL	PA
EPA 8270 D - EXTENDED	ATRAZINE	PA
EPA 8270 D - EXTENDED	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	PA
EPA 8270 D - EXTENDED	CARBAZOLE	PA
EPA 8270 D SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 D SIM	ACENAPHTHYLENE	PA
EPA 8270 D SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 D SIM	BENZO(B)FLUORANTHENE	PA
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 D SIM	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 D SIM	FLUORENE	PA
EPA 8270 D SIM	NAPHTHALENE	PA
EPA 8270 D SIM	PYRENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ O-P-DIOXIN (OCDD)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ O-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZ OFURAN (1,2,3,4,7,8,9-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOF URAN (1,2,3,4,7,8-HXCDF)	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8382

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

Virginia Laboratory ID: 460182
Effective Date: June 15, 2016
Expiration Date: June 14, 2017

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	PA
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	PA
EPA 8315 A	ACETALDEHYDE	PA
EPA 8315 A	BUTYLALDEHYDE (BUTANAL)	PA
EPA 8315 A	FORMALDEHYDE	PA
EPA 8315 A	ISOVALERALDEHYDE	PA
EPA 8315 A	O-TOLUALDEHYDE (1,2-TOLUALDEHYDE)	PA
EPA 8315 A	PENTANAL (VALERALDEHYDE)	PA
EPA 8330	NITROGLYCERIN	PA
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	PA
EPA 8330 A	3-NITROTOLUENE	PA
EPA 8330 A	4-NITROTOLUENE	PA
EPA 8330 A	NITROBENZENE	PA
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	PA
EPA 9045 C	PH	PA
EPA 9050 A	CONDUCTIVITY	PA
EPA 9066	TOTAL PHENOLICS	PA
EPA 9081	CATION EXCHANGE CAPACITY	PA

METHOD	ANALYTE	PRIMARY
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 8315 A	2,5-DIMETHYLBENZALDEHYDE	PA
EPA 8315 A	BENZALDEHYDE	PA
EPA 8315 A	CROTONALDEHYDE	PA
EPA 8315 A	HEXANALDEHYDE (HEXANAL)	PA
EPA 8315 A	M-TOLUALDEHYDE (1,3-TOLUALDEHYDE)	PA
EPA 8315 A	P-TOLUALDEHYDE (1,4-TOLUALDEHYDE)	PA
EPA 8315 A	PROPIONALDEHYDE (PROPANAL)	PA
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	PA
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8330 A	2-NITROTOLUENE	PA
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	PA
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	PA
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	PA
EPA 9012 A	CYANIDE	PA
EPA 9045 D	PH	PA
EPA 9060	TOTAL ORGANIC CARBON	PA
EPA 9071 B	OIL AND GREASE (AS HEM)	PA
EPA 9095 B	FREE LIQUID	PA

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460187
Microbac Laboratories, Inc.

158 Starlite Drive
Marietta, OH 45750

Owner: J. TREVOR BOYCE
Operator: DAVID E. VANDENBERG
Responsible Official: DAVID E. VANDENBERG

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **September 15, 2015**
Expiration Date: **September 14, 2016**
Certificate # 8006

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8006

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	FL
EPA 160.4	RESIDUE-VOLATILE	FL
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	FL
EPA 200.7 REV 4.4	ALUMINUM	FL
EPA 200.7 REV 4.4	ARSENIC	FL
EPA 200.7 REV 4.4	BERYLLIUM	FL
EPA 200.7 REV 4.4	CADMIUM	FL
EPA 200.7 REV 4.4	CHROMIUM	FL
EPA 200.7 REV 4.4	COPPER	FL
EPA 200.7 REV 4.4	LEAD	FL
EPA 200.7 REV 4.4	MANGANESE	FL
EPA 200.7 REV 4.4	NICKEL	FL
EPA 200.7 REV 4.4	POTASSIUM	FL
EPA 200.7 REV 4.4	SILICA AS SIO2	FL
EPA 200.7 REV 4.4	SODIUM	FL
EPA 200.7 REV 4.4	TIN	FL
EPA 200.7 REV 4.4	TOTAL HARDNESS AS CACO3	FL
EPA 200.7 REV 4.4	ZINC	FL
EPA 200.8 REV 5.4	ARSENIC	FL
EPA 200.8 REV 5.4	CADMIUM	FL
EPA 200.8 REV 5.4	COBALT	FL
EPA 200.8 REV 5.4	LEAD	FL
EPA 200.8 REV 5.4	NICKEL	FL
EPA 200.8 REV 5.4	SILVER	FL
EPA 200.8 REV 5.4	VANADIUM	FL
EPA 245.1 REV 3	MERCURY	FL
EPA 300.0 REV 2.1	CHLORIDE	FL
EPA 300.0 REV 2.1	NITRATE AS N	FL
EPA 300.0 REV 2.1	SULFATE	FL
EPA 350.1 REV 2	AMMONIA AS N	FL
EPA 353.2 REV 2	NITRATE AS N	FL
EPA 365.4	PHOSPHORUS, TOTAL	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL

METHOD	ANALYTE	PRIMARY
EPA 120.1	CONDUCTIVITY	FL
EPA 1664 A	OIL AND GREASE (AS HEM)	FL
EPA 180.1 REV 2	TURBIDITY	FL
EPA 200.7 REV 4.4	ANTIMONY	FL
EPA 200.7 REV 4.4	BARIUM	FL
EPA 200.7 REV 4.4	BORON	FL
EPA 200.7 REV 4.4	CALCIUM	FL
EPA 200.7 REV 4.4	COBALT	FL
EPA 200.7 REV 4.4	IRON	FL
EPA 200.7 REV 4.4	MAGNESIUM	FL
EPA 200.7 REV 4.4	MOLYBDENUM	FL
EPA 200.7 REV 4.4	PHOSPHORUS, TOTAL	FL
EPA 200.7 REV 4.4	SELENIUM	FL
EPA 200.7 REV 4.4	SILVER	FL
EPA 200.7 REV 4.4	THALLIUM	FL
EPA 200.7 REV 4.4	TITANIUM	FL
EPA 200.7 REV 4.4	VANADIUM	FL
EPA 200.8 REV 5.4	ANTIMONY	FL
EPA 200.8 REV 5.4	BARIUM	FL
EPA 200.8 REV 5.4	CHROMIUM	FL
EPA 200.8 REV 5.4	COPPER	FL
EPA 200.8 REV 5.4	MANGANESE	FL
EPA 200.8 REV 5.4	SELENIUM	FL
EPA 200.8 REV 5.4	THALLIUM	FL
EPA 200.8 REV 5.4	ZINC	FL
EPA 300.0 REV 2.1	BROMIDE	FL
EPA 300.0 REV 2.1	FLUORIDE	FL
EPA 300.0 REV 2.1	NITRITE AS N	FL
EPA 310.2	ALKALINITY AS CACO3	FL
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	FL
EPA 353.2 REV 2	NITRATE/NITRITE	FL
EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL
EPA 6010 B	COBALT	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8006

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	PHOSPHORUS, TOTAL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6010 C	ALUMINUM	FL
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	PHOSPHORUS, TOTAL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6010 C - EXTENDED	SILICON	FL
EPA 6020	ARSENIC	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 A	ANTIMONY	FL
EPA 6020 A	BARIUM	FL
EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COPPER	FL
EPA 6020 A	MANGANESE	FL
EPA 6020 A	SELENIUM	FL
EPA 6020 A	THALLIUM	FL

METHOD	ANALYTE	PRIMARY
EPA 6010 B	IRON	FL
EPA 6010 B	LITHIUM	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILICA AS SIO2	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6010 C	ANTIMONY	FL
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	LITHIUM	FL
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILICA AS SIO2	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 A	ARSENIC	FL
EPA 6020 A	CADMIUM	FL
EPA 6020 A	COBALT	FL
EPA 6020 A	LEAD	FL
EPA 6020 A	NICKEL	FL
EPA 6020 A	SILVER	FL
EPA 6020 A	VANADIUM	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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158 Starlite Drive
Marietta, OH 45750

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Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6020 A	ZINC	FL
EPA 608	4,4'-DDD	FL
EPA 608	4,4'-DDT	FL
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	AROCLOR-1221 (PCB-1221)	FL
EPA 608	AROCLOR-1242 (PCB-1242)	FL
EPA 608	AROCLOR-1254 (PCB-1254)	FL
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	DELTA-BHC	FL
EPA 608	ENDOSULFAN I	FL
EPA 608	ENDOSULFAN SULFATE	FL
EPA 608	ENDRIN ALDEHYDE	FL
EPA 608	HEPTACHLOR	FL
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 624	1,1,2,2-TETRACHLOROETHANE	FL
EPA 624	1,1-DICHLOROETHANE	FL
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 624	1,3-DICHLOROBENZENE	FL
EPA 624	2-CHLOROETHYL VINYL ETHER	FL
EPA 624	ACRYLONITRILE	FL
EPA 624	BROMODICHLOROMETHANE	FL
EPA 624	CARBON TETRACHLORIDE	FL
EPA 624	CHLORODIBROMOMETHANE	FL
EPA 624	CHLOROFORM	FL
EPA 624	ETHYLBENZENE	FL
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 624	TRANS-1,2-DICHLOROETHENE	FL
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 624	VINYL CHLORIDE	FL
EPA 624 - EXTENDED	XYLENE (TOTAL)	FL

METHOD	ANALYTE	PRIMARY
EPA 6020 A - EXTENDED	URANIUM	FL
EPA 608	4,4'-DDE	FL
EPA 608	ALDRIN	FL
EPA 608	AROCLOR-1016 (PCB-1016)	FL
EPA 608	AROCLOR-1232 (PCB-1232)	FL
EPA 608	AROCLOR-1248 (PCB-1248)	FL
EPA 608	AROCLOR-1260 (PCB-1260)	FL
EPA 608	CHLORDANE (TECH.)	FL
EPA 608	DIELDRIN	FL
EPA 608	ENDOSULFAN II	FL
EPA 608	ENDRIN	FL
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	HEPTACHLOR EPOXIDE	FL
EPA 624	1,1,1-TRICHLOROETHANE	FL
EPA 624	1,1,2-TRICHLOROETHANE	FL
EPA 624	1,2-DICHLOROBENZENE	FL
EPA 624	1,2-DICHLOROPROPANE	FL
EPA 624	1,4-DICHLOROBENZENE	FL
EPA 624	ACROLEIN (PROPENAL)	FL
EPA 624	BENZENE	FL
EPA 624	BROMOFORM	FL
EPA 624	CHLOROBENZENE	FL
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 624	CIS-1,3-DICHLOROPROPENE	FL
EPA 624	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 624	TOLUENE	FL
EPA 624	TRANS-1,3-DICHLOROPROPENE	FL
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE FREON 11)	FL
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	FL
EPA 625	1,2,4-TRICHLOROBENZENE	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8006

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 625	2,4,6-TRICHLOROPHENOL	FL
EPA 625	2,4-DIMETHYLPHENOL	FL
EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 625	2-CHLORONAPHTHALENE	FL
EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 625	3,3'-DICHLOROBENZIDINE	FL
EPA 625	4-CHLORO-3-METHYLPHENOL	FL
EPA 625	4-NITROPHENOL	FL
EPA 625	ACENAPHTHYLENE	FL
EPA 625	BENZIDINE	FL
EPA 625	BENZO(A)PYRENE	FL
EPA 625	BENZO(G,H,I)PERYLENE	FL
EPA 625	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 625	BUTYL BENZYL PHTHALATE	FL
EPA 625	DI-N-BUTYL PHTHALATE	FL
EPA 625	DIBENZO(A,H) ANTHRACENE	FL
EPA 625	DIMETHYL PHTHALATE	FL
EPA 625	FLUORENE	FL
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 625	HEXACHLOROETHANE	FL
EPA 625	ISOPHORONE	FL
EPA 625	N-NITROSODIMETHYLAMINE	FL
EPA 625	NAPHTHALENE	FL
EPA 625	PENTACHLOROPHENOL	FL
EPA 625	PHENOL	FL
EPA 6850	PERCHLORATE	FL
EPA 7470 A	MERCURY	FL
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8015 B	ETHANOL	FL
EPA 8015 C	ETHANOL	FL
EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL
EPA 8015 D	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 D	GASOLINE RANGE ORGANICS (GRO)	FL

METHOD	ANALYTE	PRIMARY
EPA 625	2,4-DICHLOROPHENOL	FL
EPA 625	2,4-DINITROPHENOL	FL
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 625	2-CHLOROPHENOL	FL
EPA 625	2-NITROPHENOL	FL
EPA 625	4-BROMOPHENYL PHENYL ETHER	FL
EPA 625	4-CHLOROPHENYL PHENYLETHER	FL
EPA 625	ACENAPHTHENE	FL
EPA 625	ANTHRACENE	FL
EPA 625	BENZO(A)ANTHRACENE	FL
EPA 625	BENZO(B)FLUORANTHENE	FL
EPA 625	BENZO(K)FLUORANTHENE	FL
EPA 625	BIS(2-CHLOROETHYL) ETHER	FL
EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 625	CHRYSENE	FL
EPA 625	DI-N-OCTYL PHTHALATE	FL
EPA 625	DIETHYL PHTHALATE	FL
EPA 625	FLUORANTHENE	FL
EPA 625	HEXACHLOROBENZENE	FL
EPA 625	HEXACHLOROCYCLOPENTADIENE	FL
EPA 625	INDENO(1,2,3-CD) PYRENE	FL
EPA 625	N-NITROSODI-N-PROPYLAMINE	FL
EPA 625	N-NITROSODIPHENYLAMINE	FL
EPA 625	NITROBENZENE	FL
EPA 625	PHENANTHRENE	FL
EPA 625	PYRENE	FL
EPA 7196 A	CHROMIUM VI	FL
EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 C	METHANOL	FL
EPA 8015 D	ETHANOL	FL
EPA 8015 D	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8006

Microbac Laboratories, Inc.
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Marietta, OH 45750

Virginia Laboratory ID: 460187
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8015 D	METHANOL	FL
EPA 8081 A	4,4'-DDE	FL
EPA 8081 A	ALDRIN	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 A	CHLORDANE (TECH.)	FL
EPA 8081 A	DIELDRIN	FL
EPA 8081 A	ENDOSULFAN II	FL
EPA 8081 A	ENDRIN	FL
EPA 8081 A	ENDRIN KETONE	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8082	AROCLOR-1221 (PCB-1221)	FL
EPA 8082	AROCLOR-1242 (PCB-1242)	FL
EPA 8082	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL

METHOD	ANALYTE	PRIMARY
EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDT	FL
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	DELTA-BHC	FL
EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	METHOXYCHLOR	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8082	AROCLOR-1016 (PCB-1016)	FL
EPA 8082	AROCLOR-1232 (PCB-1232)	FL
EPA 8082	AROCLOR-1248 (PCB-1248)	FL
EPA 8082	AROCLOR-1260 (PCB-1260)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-NITROPROPANE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	DIBROMOFLUOROMETHANE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	M+P-XYLENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	O-XYLENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NITROANILINE	FL

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EPA 8270 C	2-NITROPHENOL	FL
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPHENE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	KEPONE	FL
EPA 8270 C	METHAPYRILENE	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ANILINE	FL
EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	MALATHION	FL
EPA 8270 C	METHYL METHANESULFONATE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	DISULFOTON	FL
EPA 8270 D	FAMPHUR	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	MALATHION	FL
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D - EXTENDED	3+4-METHYLPHENOL (M+P CRESOL)	FL
EPA 8315 A	FORMALDEHYDE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 B	NITROGLYCERIN	FL
EPA 8330 B	PENTAERYTHRITOLTETRANITRATE	FL
EPA 9014	AMENABLE CYANIDE	FL
EPA 9056	CHLORIDE	FL
EPA 9056	NITRITE	FL
EPA 9056 A	NITRATE AS N	FL
HACH 8000	CHEMICAL OXYGEN DEMAND	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 A	NITROGLYCERIN	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 B	3-NITROTOLUENE	FL
EPA 8330 B	4-NITROTOLUENE	FL
EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9056	BROMIDE	FL
EPA 9056	FLUORIDE	FL
EPA 9056	SULFATE	FL
EPA 9060 A	TOTAL ORGANIC CARBON	FL
OVL HPLC07/HPLC-MS-MS	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
RSK-175	ETHANE	FL
RSK-175	METHANE	FL
SM 2310 B-2011	ACIDITY, AS CACO3	FL
SM 2340 C-2011	TOTAL HARDNESS AS CACO3	FL
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	FL
SM 3500-CR B-2011	CHROMIUM VI	FL
SM 4500-CN⁻ E-2011	CYANIDE	FL
SM 4500-F⁻ C-2011	FLUORIDE	FL
SM 4500-NO3⁻ F-2011	NITRATE AS N	FL
SM 4500-S2⁻ F-2011	SULFIDE	FL
SM 5210 B-2011	CARBONACEOUS BOD, CBOD	FL
SM 5540 C-2011	SURFACTANTS - MBAS	FL

METHOD	ANALYTE	PRIMARY
RSK-175	ETHENE	FL
SM 2120 B-2011	COLOR	FL
SM 2320 B-2011	ALKALINITY AS CACO3	FL
SM 2540 B-2011	RESIDUE-TOTAL	FL
SM 2540 F-2011	RESIDUE-SETTLEABLE	FL
SM 4500-CL⁻ E-2011	CHLORIDE	FL
SM 4500-CN⁻ G-2011	AMENABLE CYANIDE	FL
SM 4500-NO2⁻ B-2011	NITRITE AS N	FL
SM 4500-P E-2011	ORTHOPHOSPHATE AS P	FL
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND	FL
SM 5310 C-2011	TOTAL ORGANIC CARBON	FL

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL
EPA 6010 B	COBALT	FL
EPA 6010 B	IRON	FL
EPA 6010 B	LITHIUM	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6010 C	ALUMINUM	FL
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL

METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	PHOSPHORUS, TOTAL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6010 C	ANTIMONY	FL
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	LITHIUM	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	PHOSPHORUS, TOTAL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ARSENIC	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 - EXTENDED	URANIUM	FL
EPA 6020 A	ARSENIC	FL
EPA 6020 A	CADMIUM	FL
EPA 6020 A	COBALT	FL
EPA 6020 A	LEAD	FL
EPA 6020 A	NICKEL	FL
EPA 6020 A	SILVER	FL
EPA 6020 A	VANADIUM	FL
EPA 6020 A - EXTENDED	URANIUM	FL
EPA 7196 A	CHROMIUM VI	FL
EPA 7471 B	MERCURY	FL
EPA 8015 B	ETHANOL	FL
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 C	ETHANOL	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 D	METHANOL	FL
EPA 8081 A	4,4'-DDE	FL
EPA 8081 A	ALDRIN	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 A	CHLORDANE (TECH.)	FL
EPA 8081 A	DIELDRIN	FL

METHOD	ANALYTE	PRIMARY
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 A	ANTIMONY	FL
EPA 6020 A	BARIUM	FL
EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COPPER	FL
EPA 6020 A	MANGANESE	FL
EPA 6020 A	SELENIUM	FL
EPA 6020 A	THALLIUM	FL
EPA 6020 A	ZINC	FL
EPA 6850	PERCHLORATE	FL
EPA 7471 A	MERCURY	FL
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 B	ETHYLENE GLYCOL	FL
EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL
EPA 8015 C	ETHYLENE GLYCOL	FL
EPA 8015 D	ETHANOL	FL
EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDT	FL
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	DELTA-BHC	FL
EPA 8081 A	ENDOSULFAN I	FL

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METHOD	ANALYTE	PRIMARY
EPA 8081 A	ENDOSULFAN II	FL
EPA 8081 A	ENDRIN	FL
EPA 8081 A	ENDRIN KETONE	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8082	AROCLOR-1221 (PCB-1221)	FL
EPA 8082	AROCLOR-1242 (PCB-1242)	FL
EPA 8082	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL

METHOD	ANALYTE	PRIMARY
EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	METHOXYCHLOR	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8082	AROCLOR-1016 (PCB-1016)	FL
EPA 8082	AROCLOR-1232 (PCB-1232)	FL
EPA 8082	AROCLOR-1248 (PCB-1248)	FL
EPA 8082	AROCLOR-1260 (PCB-1260)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-NITROPROPANE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	METHACRYLONITRILE	FL

METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	DIBROMOFLUOROMETHANE	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL
EPA 8270 C	2-NITROPHENOL	FL
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	FL

METHOD	ANALYTE	PRIMARY
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NITROANILINE	FL
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8006

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPHENE	FL
EPA 8270 C	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	MALATHION	FL
EPA 8270 C	METHYL METHANESULFONATE	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ANILINE	FL
EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	KEPONE	FL
EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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Virginia Laboratory ID: 460187
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	PENTACHLOROBENZENE	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 C - EXTENDED	CARBAZOLE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL

Commonwealth of Virginia

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Expiration Date: September 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	MALATHION	FL
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	DISULFOTON	FL
EPA 8270 D	FAMPHUR	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8270 D SIM	DIMETHOATE	FL
EPA 8270 D SIM	FAMPHUR	FL
EPA 8270 D SIM	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8315 A	FORMALDEHYDE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 B	NITROGLYCERIN	FL
EPA 8330 B	PENTAERYTHRITOLTETRANITRATE	FL
EPA 9014	CYANIDE	FL
EPA 9034	TOTAL SULFIDES	FL
EPA 9045 D	PH	FL
EPA 9056	CHLORIDE	FL
EPA 9056	NITRITE	FL
EPA 9056 A	BROMIDE	FL
EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRITE	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D SIM	DIALLATE	FL
EPA 8270 D SIM	DISULFOTON	FL
EPA 8270 D SIM	KEPONE	FL
EPA 8270 D SIM	PHORATE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 A	NITROGLYCERIN	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 B	3-NITROTOLUENE	FL
EPA 8330 B	4-NITROTOLUENE	FL
EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9030 B	PREP: SULFIDE	FL
EPA 9040 C	PH	FL
EPA 9056	BROMIDE	FL
EPA 9056	FLUORIDE	FL
EPA 9056	SULFATE	FL
EPA 9056 A	CHLORIDE	FL
EPA 9056 A	NITRATE AS N	FL
EPA 9056 A	SULFATE	FL

Commonwealth of Virginia

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Scope of Accreditation

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 9095 B	FREE LIQUID	FL			

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460175
Testamerica Laboratories, Inc.

4101 Shuffel Street N.W.
North Canton, OH 44720

Owner: TESTAMERICA HOLDINGS, INC.
Operator: RACHEL BRYDON JANNETTA
Responsible Official: DANIEL PITTMAN

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **September 15, 2015**
Expiration Date: **September 14, 2016**
Certificate # 8028

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8028

Testamerica Laboratories, Inc.
4101 Shuffel Street N.W.
North Canton, OH 44720

Virginia Laboratory ID: 460175
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	OR
EPA 120.1	CONDUCTIVITY	OR
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	OR
EPA 1631 E	MERCURY	OR
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	OR
EPA 200.7 REV 4.4	ALUMINUM	OR
EPA 200.7 REV 4.4	ARSENIC	OR
EPA 200.7 REV 4.4	BERYLLIUM	OR
EPA 200.7 REV 4.4	CADMIUM	OR
EPA 200.7 REV 4.4	CHROMIUM	OR
EPA 200.7 REV 4.4	COPPER	OR
EPA 200.7 REV 4.4	LEAD	OR
EPA 200.7 REV 4.4	MANGANESE	OR
EPA 200.7 REV 4.4	NICKEL	OR
EPA 200.7 REV 4.4	SELENIUM	OR
EPA 200.7 REV 4.4	SILVER	OR
EPA 200.7 REV 4.4	THALLIUM	OR
EPA 200.7 REV 4.4	TITANIUM	OR
EPA 200.7 REV 4.4	ZINC	OR
EPA 200.8 REV 5.4	ANTIMONY	OR
EPA 200.8 REV 5.4	BARIUM	OR
EPA 200.8 REV 5.4	CADMIUM	OR
EPA 200.8 REV 5.4	COBALT	OR
EPA 200.8 REV 5.4	LEAD	OR
EPA 200.8 REV 5.4	MOLYBDENUM	OR
EPA 200.8 REV 5.4	SELENIUM	OR
EPA 200.8 REV 5.4	THALLIUM	OR
EPA 200.8 REV 5.4	ZINC	OR
EPA 245.1 REV 3	MERCURY	OR
EPA 300.0 REV 2.1	CHLORIDE	OR
EPA 300.0 REV 2.1	NITRATE AS N	OR
EPA 300.0 REV 2.1	SULFATE	OR

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	OR
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	OR
EPA 1630	METHYL MERCURY	OR
EPA 1664 A	OIL AND GREASE (AS HEM)	OR
EPA 180.1 (AS HACH 8195)	TURBIDITY	OR
EPA 200.7 REV 4.4	ANTIMONY	OR
EPA 200.7 REV 4.4	BARIUM	OR
EPA 200.7 REV 4.4	BORON	OR
EPA 200.7 REV 4.4	CALCIUM	OR
EPA 200.7 REV 4.4	COBALT	OR
EPA 200.7 REV 4.4	IRON	OR
EPA 200.7 REV 4.4	MAGNESIUM	OR
EPA 200.7 REV 4.4	MOLYBDENUM	OR
EPA 200.7 REV 4.4	POTASSIUM	OR
EPA 200.7 REV 4.4	SILICA AS SIO2	OR
EPA 200.7 REV 4.4	SODIUM	OR
EPA 200.7 REV 4.4	TIN	OR
EPA 200.7 REV 4.4	VANADIUM	OR
EPA 200.8 REV 5.4	ALUMINUM	OR
EPA 200.8 REV 5.4	ARSENIC	OR
EPA 200.8 REV 5.4	BERYLLIUM	OR
EPA 200.8 REV 5.4	CHROMIUM	OR
EPA 200.8 REV 5.4	COPPER	OR
EPA 200.8 REV 5.4	MANGANESE	OR
EPA 200.8 REV 5.4	NICKEL	OR
EPA 200.8 REV 5.4	SILVER	OR
EPA 200.8 REV 5.4	VANADIUM	OR
EPA 200.8 REV 5.4 - EXTENDED	TIN	OR
EPA 300.0 REV 2.1	BROMIDE	OR
EPA 300.0 REV 2.1	FLUORIDE	OR
EPA 300.0 REV 2.1	NITRITE AS N	OR
EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	OR

Commonwealth of Virginia

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Virginia Laboratory ID: 460175
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	OR
EPA 3510 C	PREP: LIQUID-LIQUID EXTRACTION	OR
EPA 353.2 REV 2	NITRATE/NITRITE	OR
EPA 3620 C	PREP: FLORISIL CLEANUP	OR
EPA 365.1 REV 2	ORTHOPHOSPHATE AS P	OR
EPA 3660 B	PREP: SULFUR CLEANUP	OR
EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	OR
EPA 5030 B	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	OR
EPA 6010 B	ALUMINUM	OR
EPA 6010 B	ARSENIC	OR
EPA 6010 B	BERYLLIUM	OR
EPA 6010 B	CADMIUM	OR
EPA 6010 B	CHROMIUM	OR
EPA 6010 B	COPPER	OR
EPA 6010 B	LEAD	OR
EPA 6010 B	MAGNESIUM	OR
EPA 6010 B	MOLYBDENUM	OR
EPA 6010 B	POTASSIUM	OR
EPA 6010 B	SILICA AS SIO2	OR
EPA 6010 B	SODIUM	OR
EPA 6010 B	THALLIUM	OR
EPA 6010 B	TITANIUM	OR
EPA 6010 B	ZINC	OR
EPA 6010 C	ALUMINUM	OR
EPA 6010 C	ARSENIC	OR
EPA 6010 C	BERYLLIUM	OR
EPA 6010 C	CADMIUM	OR
EPA 6010 C	CHROMIUM	OR
EPA 6010 C	COPPER	OR
EPA 6010 C	LEAD	OR
EPA 6010 C	MAGNESIUM	OR
EPA 6010 C	MOLYBDENUM	OR
EPA 6010 C	POTASSIUM	OR
EPA 6010 C	SILICA AS SIO2	OR
EPA 6010 C	SODIUM	OR
EPA 6010 C	THALLIUM	OR

METHOD	ANALYTE	PRIMARY
EPA 335.4 REV 1.0	CYANIDE	OR
EPA 3520 C	PREP: CONTINUOUS LIQUID-LIQUID EXTRACTION	OR
EPA 3620 B	PREP: FLORISIL CLEANUP	OR
EPA 3640 A	PREP: GEL PERMEATION CLEANUP	OR
EPA 365.1 REV 2	PHOSPHORUS, TOTAL	OR
EPA 3665 A	SULFURIC ACID/PERMANGANATE CLEAN-UP	OR
EPA 420.1 (AS HACH 8047)	TOTAL PHENOLICS	OR
EPA 5030 C	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	OR
EPA 6010 B	ANTIMONY	OR
EPA 6010 B	BARIUM	OR
EPA 6010 B	BORON	OR
EPA 6010 B	CALCIUM	OR
EPA 6010 B	COBALT	OR
EPA 6010 B	IRON	OR
EPA 6010 B	LITHIUM	OR
EPA 6010 B	MANGANESE	OR
EPA 6010 B	NICKEL	OR
EPA 6010 B	SELENIUM	OR
EPA 6010 B	SILVER	OR
EPA 6010 B	STRONTIUM	OR
EPA 6010 B	TIN	OR
EPA 6010 B	VANADIUM	OR
EPA 6010 B - EXTENDED	SILICON	OR
EPA 6010 C	ANTIMONY	OR
EPA 6010 C	BARIUM	OR
EPA 6010 C	BORON	OR
EPA 6010 C	CALCIUM	OR
EPA 6010 C	COBALT	OR
EPA 6010 C	IRON	OR
EPA 6010 C	LITHIUM	OR
EPA 6010 C	MANGANESE	OR
EPA 6010 C	NICKEL	OR
EPA 6010 C	SELENIUM	OR
EPA 6010 C	SILVER	OR
EPA 6010 C	STRONTIUM	OR

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METHOD	ANALYTE	PRIMARY
EPA 6010 C	TIN	OR
EPA 6010 C	VANADIUM	OR
EPA 6010 C - EXTENDED	SILICON	OR
EPA 6020	ANTIMONY	OR
EPA 6020	BARIUM	OR
EPA 6020	CADMIUM	OR
EPA 6020	COBALT	OR
EPA 6020	LEAD	OR
EPA 6020	NICKEL	OR
EPA 6020	THALLIUM	OR
EPA 6020 - EXTENDED	BORON	OR
EPA 6020 - EXTENDED	IRON	OR
EPA 6020 - EXTENDED	MOLYBDENUM	OR
EPA 6020 - EXTENDED	SELENIUM	OR
EPA 6020 - EXTENDED	STRONTIUM	OR
EPA 6020 - EXTENDED	TITANIUM	OR
EPA 6020 A	ALUMINUM	OR
EPA 6020 A	ARSENIC	OR
EPA 6020 A	BERYLLIUM	OR
EPA 6020 A	CALCIUM	OR
EPA 6020 A	COBALT	OR
EPA 6020 A	IRON	OR
EPA 6020 A	MAGNESIUM	OR
EPA 6020 A	NICKEL	OR
EPA 6020 A	SELENIUM	OR
EPA 6020 A	SODIUM	OR
EPA 6020 A	VANADIUM	OR
EPA 6020 A - EXTENDED	BORON	OR
EPA 6020 A - EXTENDED	STRONTIUM	OR
EPA 6020 A - EXTENDED	TITANIUM	OR
EPA 608	4,4'-DDE	OR
EPA 608	ALDRIN	OR
EPA 608	AROCLOR-1016 (PCB-1016)	OR
EPA 608	AROCLOR-1232 (PCB-1232)	OR
EPA 608	AROCLOR-1248 (PCB-1248)	OR
EPA 608	AROCLOR-1260 (PCB-1260)	OR
EPA 608	CHLORDANE (TECH.)	OR

METHOD	ANALYTE	PRIMARY
EPA 6010 C	TITANIUM	OR
EPA 6010 C	ZINC	OR
EPA 6020	ALUMINUM	OR
EPA 6020	ARSENIC	OR
EPA 6020	BERYLLIUM	OR
EPA 6020	CHROMIUM	OR
EPA 6020	COPPER	OR
EPA 6020	MANGANESE	OR
EPA 6020	SILVER	OR
EPA 6020	ZINC	OR
EPA 6020 - EXTENDED	CALCIUM	OR
EPA 6020 - EXTENDED	MAGNESIUM	OR
EPA 6020 - EXTENDED	POTASSIUM	OR
EPA 6020 - EXTENDED	SODIUM	OR
EPA 6020 - EXTENDED	TIN	OR
EPA 6020 - EXTENDED	VANADIUM	OR
EPA 6020 A	ANTIMONY	OR
EPA 6020 A	BARIUM	OR
EPA 6020 A	CADMIUM	OR
EPA 6020 A	CHROMIUM	OR
EPA 6020 A	COPPER	OR
EPA 6020 A	LEAD	OR
EPA 6020 A	MANGANESE	OR
EPA 6020 A	POTASSIUM	OR
EPA 6020 A	SILVER	OR
EPA 6020 A	THALLIUM	OR
EPA 6020 A	ZINC	OR
EPA 6020 A - EXTENDED	MOLYBDENUM	OR
EPA 6020 A - EXTENDED	TIN	OR
EPA 608	4,4'-DDD	OR
EPA 608	4,4'-DDT	OR
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	OR
EPA 608	AROCLOR-1221 (PCB-1221)	OR
EPA 608	AROCLOR-1242 (PCB-1242)	OR
EPA 608	AROCLOR-1254 (PCB-1254)	OR
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	OR

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METHOD	ANALYTE	PRIMARY
EPA 608	DELTA-BHC	OR
EPA 608	ENDOSULFAN I	OR
EPA 608	ENDOSULFAN SULFATE	OR
EPA 608	ENDRIN ALDEHYDE	OR
EPA 608	HEPTACHLOR	OR
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	OR
EPA 624	1,1,2,2-TETRACHLOROETHANE	OR
EPA 624	1,1-DICHLOROETHANE	OR
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	OR
EPA 624	1,3-DICHLOROBENZENE	OR
EPA 624	1,4-DICHLOROBENZENE	OR
EPA 624	ACROLEIN (PROPENAL)	OR
EPA 624	BENZENE	OR
EPA 624	BROMOFORM	OR
EPA 624	CHLOROBENZENE	OR
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	OR
EPA 624	CIS-1,3-DICHLOROPROPENE	OR
EPA 624	METHYL BROMIDE (BROMOMETHANE)	OR
EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	OR
EPA 624	TOLUENE	OR
EPA 624	TRANS-1,3-DICHLOROPROPENE	OR
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	OR
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	OR
EPA 624 - EXTENDED	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	OR
EPA 624 - EXTENDED	CIS-1,2-DICHLOROETHYLENE	OR
EPA 624 - EXTENDED	N-HEXANE	OR
EPA 625	1,2,4-TRICHLOROBENZENE	OR
EPA 625	2,4-DICHLOROPHENOL	OR
EPA 625	2,4-DINITROPHENOL	OR
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	OR
EPA 625	2-CHLOROPHENOL	OR

METHOD	ANALYTE	PRIMARY
EPA 608	DIELDRIN	OR
EPA 608	ENDOSULFAN II	OR
EPA 608	ENDRIN	OR
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	OR
EPA 608	HEPTACHLOR EPOXIDE	OR
EPA 624	1,1,1-TRICHLOROETHANE	OR
EPA 624	1,1,2-TRICHLOROETHANE	OR
EPA 624	1,2-DICHLOROBENZENE	OR
EPA 624	1,2-DICHLOROPROPANE	OR
EPA 624	1,3-DICHLOROPROPENE (TOTAL)	OR
EPA 624	2-CHLOROETHYL VINYL ETHER	OR
EPA 624	ACRYLONITRILE	OR
EPA 624	BROMODICHLOROMETHANE	OR
EPA 624	CARBON TETRACHLORIDE	OR
EPA 624	CHLORODIBROMOMETHANE	OR
EPA 624	CHLOROFORM	OR
EPA 624	ETHYLBENZENE	OR
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	OR
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	OR
EPA 624	TRANS-1,2-DICHLOROETHENE	OR
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	OR
EPA 624	VINYL CHLORIDE	OR
EPA 624 - EXTENDED	2-BUTANONE (METHYL ETHYL KETONE, MEK)	OR
EPA 624 - EXTENDED	ACETONE	OR
EPA 624 - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	OR
EPA 624 - EXTENDED	XYLENE (TOTAL)	OR
EPA 625	2,4,6-TRICHLOROPHENOL	OR
EPA 625	2,4-DIMETHYLPHENOL	OR
EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	OR
EPA 625	2-CHLORONAPHTHALENE	OR
EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	OR

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METHOD	ANALYTE	PRIMARY
EPA 625	2-METHYLPHENOL (O-CRESOL)	OR
EPA 625	3,3'-DICHLOROBENZIDINE	OR
EPA 625	4-CHLORO-3-METHYLPHENOL	OR
EPA 625	4-NITROPHENOL	OR
EPA 625	ACENAPHTHYLENE	OR
EPA 625	BENZIDINE	OR
EPA 625	BENZO(A)PYRENE	OR
EPA 625	BENZO(G,H,I)PERYLENE	OR
EPA 625	BIS(2-CHLOROETHOXY)METHANE	OR
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	OR
EPA 625	BUTYL BENZYL PHTHALATE	OR
EPA 625	DI-N-BUTYL PHTHALATE	OR
EPA 625	DIBENZO(A,H) ANTHRACENE	OR
EPA 625	DIMETHYL PHTHALATE	OR
EPA 625	FLUORENE	OR
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 625	HEXACHLOROETHANE	OR
EPA 625	ISOPHORONE	OR
EPA 625	N-NITROSODIMETHYLAMINE	OR
EPA 625	NAPHTHALENE	OR
EPA 625	PENTACHLOROPHENOL	OR
EPA 625	PHENOL	OR
EPA 625 - EXTENDED	1,2-DIPHENYLHYDRAZINE	OR
EPA 625 - EXTENDED	ANILINE	OR
EPA 625 - EXTENDED	CARBAZOLE	OR
EPA 625 - EXTENDED	N-OCTADECANE	OR
EPA 7196 A	CHROMIUM VI	OR
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	OR
EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	OR
EPA 8015 D	DIESEL RANGE ORGANICS (DRO)	OR
EPA 8081 A	4,4'-DDD	OR
EPA 8081 A	4,4'-DDT	OR
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	OR

METHOD	ANALYTE	PRIMARY
EPA 625	2-NITROPHENOL	OR
EPA 625	4-BROMOPHENYL PHENYL ETHER	OR
EPA 625	4-CHLOROPHENYL PHENYLETHER	OR
EPA 625	ACENAPHTHENE	OR
EPA 625	ANTHRACENE	OR
EPA 625	BENZO(A)ANTHRACENE	OR
EPA 625	BENZO(B)FLUORANTHENE	OR
EPA 625	BENZO(K)FLUORANTHENE	OR
EPA 625	BIS(2-CHLOROETHYL) ETHER	OR
EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	OR
EPA 625	CHRYSENE	OR
EPA 625	DI-N-OCTYL PHTHALATE	OR
EPA 625	DIETHYL PHTHALATE	OR
EPA 625	FLUORANTHENE	OR
EPA 625	HEXACHLOROBENZENE	OR
EPA 625	HEXACHLOROCYCLOPENTADIENE	OR
EPA 625	INDENO(1,2,3-CD) PYRENE	OR
EPA 625	N-NITROSODI-N-PROPYLAMINE	OR
EPA 625	N-NITROSODIPHENYLAMINE	OR
EPA 625	NITROBENZENE	OR
EPA 625	PHENANTHRENE	OR
EPA 625	PYRENE	OR
EPA 625 - EXTENDED	ACETOPHENONE	OR
EPA 625 - EXTENDED	BENZOIC ACID	OR
EPA 625 - EXTENDED	N-DECANE	OR
EPA 625 - EXTENDED	PYRIDINE	OR
EPA 7470 A	MERCURY	OR
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	OR
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	OR
EPA 8015 D	GASOLINE RANGE ORGANICS (GRO)	OR
EPA 8081 A	4,4'-DDE	OR
EPA 8081 A	ALDRIN	OR
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	OR

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 A	CHLOROBENZILATE	OR
EPA 8081 A	DIALLATE	OR
EPA 8081 A	ENDOSULFAN I	OR
EPA 8081 A	ENDOSULFAN SULFATE	OR
EPA 8081 A	ENDRIN ALDEHYDE	OR
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 A	HEPTACHLOR	OR
EPA 8081 A	HEXACHLOROBENZENE	OR
EPA 8081 A	METHOXYCHLOR	OR
EPA 8081 A - EXTENDED	KEPONE	OR
EPA 8081 B	4,4'-DDD	OR
EPA 8081 B	4,4'-DDT	OR
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 B	CHLOROBENZILATE	OR
EPA 8081 B	DIALLATE	OR
EPA 8081 B	ENDOSULFAN I	OR
EPA 8081 B	ENDOSULFAN SULFATE	OR
EPA 8081 B	ENDRIN ALDEHYDE	OR
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 B	HEPTACHLOR	OR
EPA 8081 B	HEXACHLOROBENZENE	OR
EPA 8081 B	METHOXYCHLOR	OR
EPA 8081 B - EXTENDED	KEPONE	OR
EPA 8082	AROCLOR-1016 (PCB-1016)	OR
EPA 8082	AROCLOR-1232 (PCB-1232)	OR
EPA 8082	AROCLOR-1248 (PCB-1248)	OR
EPA 8082	AROCLOR-1260 (PCB-1260)	OR
EPA 8082 - EXTENDED	AROCLOR-1268 (PCB-1268)	OR
EPA 8082 A	AROCLOR-1221 (PCB-1221)	OR
EPA 8082 A	AROCLOR-1242 (PCB-1242)	OR

METHOD	ANALYTE	PRIMARY
EPA 8081 A	CHLORDANE (TECH.)	OR
EPA 8081 A	DELTA-BHC	OR
EPA 8081 A	DIELDRIN	OR
EPA 8081 A	ENDOSULFAN II	OR
EPA 8081 A	ENDRIN	OR
EPA 8081 A	ENDRIN KETONE	OR
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	OR
EPA 8081 A	HEPTACHLOR EPOXIDE	OR
EPA 8081 A	ISODRIN	OR
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	OR
EPA 8081 A - EXTENDED	MIREX	OR
EPA 8081 B	4,4'-DDE	OR
EPA 8081 B	ALDRIN	OR
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	OR
EPA 8081 B	CHLORDANE (TECH.)	OR
EPA 8081 B	DELTA-BHC	OR
EPA 8081 B	DIELDRIN	OR
EPA 8081 B	ENDOSULFAN II	OR
EPA 8081 B	ENDRIN	OR
EPA 8081 B	ENDRIN KETONE	OR
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	OR
EPA 8081 B	HEPTACHLOR EPOXIDE	OR
EPA 8081 B	ISODRIN	OR
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	OR
EPA 8081 B - EXTENDED	MIREX	OR
EPA 8082	AROCLOR-1221 (PCB-1221)	OR
EPA 8082	AROCLOR-1242 (PCB-1242)	OR
EPA 8082	AROCLOR-1254 (PCB-1254)	OR
EPA 8082 - EXTENDED	AROCLOR-1262 (PCB-1262)	OR
EPA 8082 A	AROCLOR-1016 (PCB-1016)	OR
EPA 8082 A	AROCLOR-1232 (PCB-1232)	OR
EPA 8082 A	AROCLOR-1248 (PCB-1248)	OR

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METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1254 (PCB-1254)	OR
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	OR
EPA 8151 A	2,4,5-T	OR
EPA 8151 A	2,4-DB	OR
EPA 8151 A	DICAMBA	OR
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	OR
EPA 8151 A	MCPP	OR
EPA 8151 A	SILVEX (2,4,5-TP)	OR
EPA 8260 B	1,1,1-TRICHLOROETHANE	OR
EPA 8260 B	1,1,2-TRICHLOROETHANE	OR
EPA 8260 B	1,1-DICHLOROETHYLENE	OR
EPA 8260 B	1,2,3-TRICHLOROBENZENE	OR
EPA 8260 B	1,2,4-TRICHLOROBENZENE	OR
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	OR
EPA 8260 B	1,2-DICHLOROBENZENE	OR
EPA 8260 B	1,2-DICHLOROPROPANE	OR
EPA 8260 B	1,3-DICHLOROBENZENE	OR
EPA 8260 B	1,4-DICHLOROBENZENE	OR
EPA 8260 B	1-BUTANOL (N-BUTANOL)	OR
EPA 8260 B	2,2-DICHLOROPROPANE	OR
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	OR
EPA 8260 B	2-HEXANONE	OR
EPA 8260 B	4-CHLOROTOLUENE	OR
EPA 8260 B	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	OR
EPA 8260 B	ACETONITRILE	OR
EPA 8260 B	ACRYLONITRILE	OR
EPA 8260 B	BENZENE	OR
EPA 8260 B	BROMOBENZENE	OR
EPA 8260 B	BROMODICHLOROMETHANE	OR
EPA 8260 B	CARBON DISULFIDE	OR
EPA 8260 B	CHLOROBENZENE	OR
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	OR
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	OR

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1260 (PCB-1260)	OR
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	OR
EPA 8151 A	2,4-D	OR
EPA 8151 A	DALAPON	OR
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	OR
EPA 8151 A	MCPA	OR
EPA 8151 A	PENTACHLOROPHENOL	OR
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	OR
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	OR
EPA 8260 B	1,1-DICHLOROETHANE	OR
EPA 8260 B	1,1-DICHLOROPROPENE	OR
EPA 8260 B	1,2,3-TRICHLOROPROPANE	OR
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	OR
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	OR
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	OR
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	OR
EPA 8260 B	1,3-DICHLOROPROPANE	OR
EPA 8260 B	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8260 B	1-CHLOROHEXANE	OR
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	OR
EPA 8260 B	2-CHLOROTOLUENE	OR
EPA 8260 B	2-NITROPROPANE	OR
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	OR
EPA 8260 B	ACETONE	OR
EPA 8260 B	ACROLEIN (PROPENAL)	OR
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	OR
EPA 8260 B	BENZYL CHLORIDE	OR
EPA 8260 B	BROMOCHLOROMETHANE	OR
EPA 8260 B	BROMOFORM	OR
EPA 8260 B	CARBON TETRACHLORIDE	OR
EPA 8260 B	CHLORODIBROMOMETHANE	OR
EPA 8260 B	CHLOROFORM	OR
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	OR

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	OR
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	OR
EPA 8260 B	ETHYL ACETATE	OR
EPA 8260 B	ETHYLBENZENE	OR
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	OR
EPA 8260 B	ISOPROPYLBENZENE	OR
EPA 8260 B	METHACRYLONITRILE	OR
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	OR
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	OR
EPA 8260 B	N-BUTYLBENZENE	OR
EPA 8260 B	NAPHTHALENE	OR
EPA 8260 B	PENTACHLOROETHANE	OR
EPA 8260 B	SEC-BUTYLBENZENE	OR
EPA 8260 B	TERT-BUTYL ALCOHOL	OR
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	OR
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	OR
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	OR
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	OR
EPA 8260 B	VINYL CHLORIDE	OR
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	OR
EPA 8260 B - EXTENDED	1,3,5-TRICHLOROBENZENE	OR
EPA 8260 B - EXTENDED	CYCLOHEXANE	OR
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	OR
EPA 8260 B - EXTENDED	ETHYL ACRYLATE	OR
EPA 8260 B - EXTENDED	METHYL ACETATE	OR
EPA 8260 B - EXTENDED	N-HEPTANE	OR
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	OR
EPA 8260 B SIM	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8260 C	1,1,1-TRICHLOROETHANE	OR
EPA 8260 C	1,1,2-TRICHLOROETHANE	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	OR
EPA 8260 B	DIETHYL ETHER	OR
EPA 8260 B	ETHYL METHACRYLATE	OR
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	OR
EPA 8260 B	M+P-XYLENE	OR
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	OR
EPA 8260 B	METHYL METHACRYLATE	OR
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	OR
EPA 8260 B	N-PROPYLBENZENE	OR
EPA 8260 B	O-XYLENE	OR
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	OR
EPA 8260 B	STYRENE	OR
EPA 8260 B	TERT-BUTYLBENZENE	OR
EPA 8260 B	TOLUENE	OR
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	OR
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	OR
EPA 8260 B	VINYL ACETATE	OR
EPA 8260 B	XYLENE (TOTAL)	OR
EPA 8260 B - EXTENDED	1,2,3-TRIMETHYLBENZENE	OR
EPA 8260 B - EXTENDED	2-METHYLNAPHTHALENE	OR
EPA 8260 B - EXTENDED	CYCLOHEXANONE	OR
EPA 8260 B - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	OR
EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	OR
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	OR
EPA 8260 B - EXTENDED	N-HEXANE	OR
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	OR
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	OR
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	OR
EPA 8260 C	1,1-DICHLOROETHANE	OR

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 C	1,1-DICHLOROETHYLENE	OR
EPA 8260 C	1,2,3-TRICHLOROBENZENE	OR
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	OR
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	OR
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	OR
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	OR
EPA 8260 C	1,3-DICHLOROPROPANE	OR
EPA 8260 C	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8260 C	1-CHLOROHEXANE	OR
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	OR
EPA 8260 C	2-CHLOROTOLUENE	OR
EPA 8260 C	2-NITROPROPANE	OR
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	OR
EPA 8260 C	ACETONE	OR
EPA 8260 C	ACROLEIN (PROPENAL)	OR
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	OR
EPA 8260 C	BENZYL CHLORIDE	OR
EPA 8260 C	BROMOCHLOROMETHANE	OR
EPA 8260 C	BROMOFORM	OR
EPA 8260 C	CARBON TETRACHLORIDE	OR
EPA 8260 C	CHLORODIBROMOMETHANE	OR
EPA 8260 C	CHLOROFORM	OR
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	OR
EPA 8260 C	CYCLOHEXANE	OR
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	OR
EPA 8260 C	ETHYL ACETATE	OR
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	OR
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	OR
EPA 8260 C	M+P-XYLENE	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 C	1,1-DICHLOROPROPENE	OR
EPA 8260 C	1,2,3-TRICHLOROPROPANE	OR
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	OR
EPA 8260 C	1,2-DICHLOROBENZENE	OR
EPA 8260 C	1,2-DICHLOROPROPANE	OR
EPA 8260 C	1,3-DICHLOROBENZENE	OR
EPA 8260 C	1,4-DICHLOROBENZENE	OR
EPA 8260 C	1-BUTANOL (N-BUTANOL)	OR
EPA 8260 C	2,2-DICHLOROPROPANE	OR
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	OR
EPA 8260 C	2-HEXANONE	OR
EPA 8260 C	4-CHLOROTOLUENE	OR
EPA 8260 C	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	OR
EPA 8260 C	ACETONITRILE	OR
EPA 8260 C	ACRYLONITRILE	OR
EPA 8260 C	BENZENE	OR
EPA 8260 C	BROMOBENZENE	OR
EPA 8260 C	BROMODICHLOROMETHANE	OR
EPA 8260 C	CARBON DISULFIDE	OR
EPA 8260 C	CHLOROBENZENE	OR
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	OR
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	OR
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	OR
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	OR
EPA 8260 C	DIETHYL ETHER	OR
EPA 8260 C	ETHYL METHACRYLATE	OR
EPA 8260 C	ETHYLBENZENE	OR
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	OR
EPA 8260 C	ISOPROPYLBENZENE	OR
EPA 8260 C	METHACRYLONITRILE	OR

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	OR
EPA 8260 C	METHYL METHACRYLATE	OR
EPA 8260 C	METHYLCYCLOHEXANE	OR
EPA 8260 C	N-BUTYLBENZENE	OR
EPA 8260 C	NAPHTHALENE	OR
EPA 8260 C	PENTACHLOROETHANE	OR
EPA 8260 C	SEC-BUTYLBENZENE	OR
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	OR
EPA 8260 C	TERT-BUTYLBENZENE	OR
EPA 8260 C	TOLUENE	OR
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	OR
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	OR
EPA 8260 C	VINYL ACETATE	OR
EPA 8260 C	XYLENE (TOTAL)	OR
EPA 8260 C - EXTENDED	1,3,5-TRICHLOROBENZENE	OR
EPA 8260 C - EXTENDED	CYCLOHEXANONE	OR
EPA 8260 C - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	OR
EPA 8260 C - EXTENDED	METHYL ACETATE	OR
EPA 8260 C - EXTENDED	N-HEXANE	OR
EPA 8260 C SIM	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8270 C	1,2,4-TRICHLOROBENZENE	OR
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	OR
EPA 8270 C	1,3-DICHLOROBENZENE	OR
EPA 8270 C	1,4-DICHLOROBENZENE	OR
EPA 8270 C	1,4-NAPHTHOQUINONE	OR
EPA 8270 C	1-CHLORONAPHTHALENE	OR
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	OR
EPA 8270 C	2,4,6-TRICHLOROPHENOL	OR
EPA 8270 C	2,4-DICHLOROPHENOL	OR
EPA 8270 C	2,4-DINITROPHENOL	OR
EPA 8270 C	2,6-DICHLOROPHENOL	OR
EPA 8270 C	2-ACETYLAMINOFLUORENE	OR
EPA 8270 C	2-CHLOROPHENOL	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	OR
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	OR
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	OR
EPA 8260 C	N-PROPYLBENZENE	OR
EPA 8260 C	O-XYLENE	OR
EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	OR
EPA 8260 C	STYRENE	OR
EPA 8260 C	TERT-BUTYL ALCOHOL	OR
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	OR
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	OR
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	OR
EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	OR
EPA 8260 C	VINYL CHLORIDE	OR
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	OR
EPA 8260 C - EXTENDED	2-METHYLNAPHTHALENE	OR
EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	OR
EPA 8260 C - EXTENDED	ETHYL ACRYLATE	OR
EPA 8260 C - EXTENDED	N-HEPTANE	OR
EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	OR
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	OR
EPA 8270 C	1,2-DICHLOROBENZENE	OR
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	OR
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	OR
EPA 8270 C	1,4-DINITROBENZENE	OR
EPA 8270 C	1,4-PHENYLENEDIAMINE	OR
EPA 8270 C	1-NAPHTHYLAMINE	OR
EPA 8270 C	2,4,5-TRICHLOROPHENOL	OR
EPA 8270 C	2,4-DIAMINOTOLUENE	OR
EPA 8270 C	2,4-DIMETHYLPHENOL	OR
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	OR
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	OR
EPA 8270 C	2-CHLORONAPHTHALENE	OR

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METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	OR
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	OR
EPA 8270 C	2-NITROANILINE	OR
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	OR
EPA 8270 C	3,3'-DIMETHOXYBENZIDINE	OR
EPA 8270 C	3-METHYLCHOLANTHRENE	OR
EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	OR
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	OR
EPA 8270 C	4-CHLOROANILINE	OR
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	OR
EPA 8270 C	4-NITROPHENOL	OR
EPA 8270 C	5-NITRO-O-TOLUIDINE	OR
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	OR
EPA 8270 C	ACENAPHTHYLENE	OR
EPA 8270 C	ANILINE	OR
EPA 8270 C	ARAMITE	OR
EPA 8270 C	BENZO(A)ANTHRACENE	OR
EPA 8270 C	BENZO(B)FLUORANTHENE	OR
EPA 8270 C	BENZO(K)FLUORANTHENE	OR
EPA 8270 C	BENZYL ALCOHOL	OR
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	OR
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	OR
EPA 8270 C	CHLOROBENZILATE	OR
EPA 8270 C	DI-N-BUTYL PHTHALATE	OR
EPA 8270 C	DIALLATE	OR
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	OR
EPA 8270 C	DIETHYL PHTHALATE	OR
EPA 8270 C	DIMETHYL PHTHALATE	OR
EPA 8270 C	DIPHENYLAMINE	OR
EPA 8270 C	ETHYL METHANESULFONATE	OR
EPA 8270 C	FLUORANTHENE	OR
EPA 8270 C	HEXACHLOROBENZENE	OR
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	OR
EPA 8270 C	HEXACHLOROPHENE	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-METHYLNAPHTHALENE	OR
EPA 8270 C	2-NAPHTHYLAMINE	OR
EPA 8270 C	2-NITROPHENOL	OR
EPA 8270 C	3,3'-DICHLOROBENZIDINE	OR
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	OR
EPA 8270 C	3-NITROANILINE	OR
EPA 8270 C	4-AMINOBIPHENYL	OR
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	OR
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	OR
EPA 8270 C	4-NITROANILINE	OR
EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	OR
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	OR
EPA 8270 C	ACENAPHTHENE	OR
EPA 8270 C	ACETOPHENONE	OR
EPA 8270 C	ANTHRACENE	OR
EPA 8270 C	BENZIDINE	OR
EPA 8270 C	BENZO(A)PYRENE	OR
EPA 8270 C	BENZO(G,H,I)PERYLENE	OR
EPA 8270 C	BENZOIC ACID	OR
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	OR
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	OR
EPA 8270 C	BUTYL BENZYL PHTHALATE	OR
EPA 8270 C	CHRYSENE	OR
EPA 8270 C	DI-N-OCTYL PHTHALATE	OR
EPA 8270 C	DIBENZ(A, J) ACRIDINE	OR
EPA 8270 C	DIBENZOFURAN	OR
EPA 8270 C	DIMETHOATE	OR
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	OR
EPA 8270 C	DISULFOTON	OR
EPA 8270 C	FAMPHUR	OR
EPA 8270 C	FLUORENE	OR
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8270 C	HEXACHLOROETHANE	OR
EPA 8270 C	HEXACHLOROPROPENE	OR

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	OR
EPA 8270 C	ISOPHORONE	OR
EPA 8270 C	KEPONE	OR
EPA 8270 C	METHYL METHANESULFONATE	OR
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	OR
EPA 8270 C	N-NITROSODIETHYLAMINE	OR
EPA 8270 C	N-NITROSODIPHENYLAMINE	OR
EPA 8270 C	N-NITROSOMORPHOLINE	OR
EPA 8270 C	N-NITROSOPYRROLIDINE	OR
EPA 8270 C	NITROBENZENE	OR
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	OR
EPA 8270 C	PENTACHLOROBENZENE	OR
EPA 8270 C	PENTACHLOROPHENOL	OR
EPA 8270 C	PHENANTHRENE	OR
EPA 8270 C	PHORATE	OR
EPA 8270 C	PYRENE	OR
EPA 8270 C	SAFROLE	OR
EPA 8270 C	THIONAZIN (ZINOPHOS)	OR
EPA 8270 C - EXTENDED	1,1'-BIPHENYL	OR
EPA 8270 C - EXTENDED	1-METHYLNAPHTHALENE	OR
EPA 8270 C - EXTENDED	3+4-METHYLPHENOL (M+P CRESOL)	OR
EPA 8270 C - EXTENDED	ATRAZINE	OR
EPA 8270 C - EXTENDED	CAPROLACTAM	OR
EPA 8270 C - EXTENDED	DIBENZ(A,H) ACRIDINE	OR
EPA 8270 C - EXTENDED	N-OCTADECANE	OR
EPA 8270 C - EXTENDED	QUINOLINE	OR
EPA 8270 D	1,2,4-TRICHLOROBENZENE	OR
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	OR
EPA 8270 D	1,3-DICHLOROBENZENE	OR
EPA 8270 D	1,4-DICHLOROBENZENE	OR
EPA 8270 D	1,4-NAPHTHOQUINONE	OR
EPA 8270 D	1-CHLORONAPHTHALENE	OR
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	OR
EPA 8270 D	2,4,6-TRICHLOROPHENOL	OR
EPA 8270 D	2,4-DICHLOROPHENOL	OR
EPA 8270 D	2,4-DINITROPHENOL	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 C	ISODRIN	OR
EPA 8270 C	ISOSAFROLE	OR
EPA 8270 C	METHAPYRILENE	OR
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	OR
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	OR
EPA 8270 C	N-NITROSODIMETHYLAMINE	OR
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	OR
EPA 8270 C	N-NITROSOPIPERIDINE	OR
EPA 8270 C	NAPHTHALENE	OR
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	OR
EPA 8270 C	PARATHION (PARATHION - ETHYL)	OR
EPA 8270 C	PENTACHLORONITROBENZENE	OR
EPA 8270 C	PHENACETIN	OR
EPA 8270 C	PHENOL	OR
EPA 8270 C	PRONAMIDE (KERB)	OR
EPA 8270 C	PYRIDINE	OR
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	OR
EPA 8270 C	THIOPHENOL (BENZENETHIOL)	OR
EPA 8270 C - EXTENDED	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8270 C - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	OR
EPA 8270 C - EXTENDED	6-METHYLCHRYSENE	OR
EPA 8270 C - EXTENDED	BENZALDEHYDE	OR
EPA 8270 C - EXTENDED	CARBAZOLE	OR
EPA 8270 C - EXTENDED	INDENE	OR
EPA 8270 C - EXTENDED	PENTACHLOROETHANE	OR
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	OR
EPA 8270 D	1,2-DICHLOROBENZENE	OR
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	OR
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	OR
EPA 8270 D	1,4-DINITROBENZENE	OR
EPA 8270 D	1,4-PHENYLENEDIAMINE	OR
EPA 8270 D	1-NAPHTHYLAMINE	OR
EPA 8270 D	2,4,5-TRICHLOROPHENOL	OR
EPA 8270 D	2,4-DIAMINOTOLUENE	OR
EPA 8270 D	2,4-DIMETHYLPHENOL	OR
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	OR

Commonwealth of Virginia

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Virginia Laboratory ID: 460175
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Expiration Date: September 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	2,6-DICHLOROPHENOL	OR
EPA 8270 D	2-ACETYLAMINOFLUORENE	OR
EPA 8270 D	2-CHLOROPHENOL	OR
EPA 8270 D	2-METHYLNAPHTHALENE	OR
EPA 8270 D	2-NAPHTHYLAMINE	OR
EPA 8270 D	2-NITROPHENOL	OR
EPA 8270 D	3,3'-DICHLOROBENZIDINE	OR
EPA 8270 D	3-METHYLCHOLANTHRENE	OR
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	OR
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	OR
EPA 8270 D	4-CHLOROANILINE	OR
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	OR
EPA 8270 D	4-NITROPHENOL	OR
EPA 8270 D	5-NITRO-O-TOLUIDINE	OR
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	OR
EPA 8270 D	ACENAPHTHYLENE	OR
EPA 8270 D	ANILINE	OR
EPA 8270 D	ARAMITE	OR
EPA 8270 D	BENZO(A)ANTHRACENE	OR
EPA 8270 D	BENZO(B)FLUORANTHENE	OR
EPA 8270 D	BENZO(K)FLUORANTHENE	OR
EPA 8270 D	BENZYL ALCOHOL	OR
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	OR
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	OR
EPA 8270 D	CHLOROBENZILATE	OR
EPA 8270 D	DI-N-BUTYL PHTHALATE	OR
EPA 8270 D	DIALLATE	OR
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	OR
EPA 8270 D	DIETHYL PHTHALATE	OR
EPA 8270 D	DIMETHYL PHTHALATE	OR
EPA 8270 D	DIPHENYLAMINE	OR
EPA 8270 D	ETHYL METHANESULFONATE	OR
EPA 8270 D	FLUORANTHENE	OR
EPA 8270 D	HEXACHLOROBENZENE	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	OR
EPA 8270 D	2-CHLORONAPHTHALENE	OR
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	OR
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	OR
EPA 8270 D	2-NITROANILINE	OR
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	OR
EPA 8270 D	3,3'-DIMETHOXYBENZIDINE	OR
EPA 8270 D	3-NITROANILINE	OR
EPA 8270 D	4-AMINOBIPHENYL	OR
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	OR
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	OR
EPA 8270 D	4-NITROANILINE	OR
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	OR
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	OR
EPA 8270 D	ACENAPHTHENE	OR
EPA 8270 D	ACETOPHENONE	OR
EPA 8270 D	ANTHRACENE	OR
EPA 8270 D	BENZIDINE	OR
EPA 8270 D	BENZO(A)PYRENE	OR
EPA 8270 D	BENZO(G,H,I)PERYLENE	OR
EPA 8270 D	BENZOIC ACID	OR
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	OR
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	OR
EPA 8270 D	BUTYL BENZYL PHTHALATE	OR
EPA 8270 D	CHRYSENE	OR
EPA 8270 D	DI-N-OCTYL PHTHALATE	OR
EPA 8270 D	DIBENZ(A, J) ACRIDINE	OR
EPA 8270 D	DIBENZOFURAN	OR
EPA 8270 D	DIMETHOATE	OR
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	OR
EPA 8270 D	DISULFOTON	OR
EPA 8270 D	FAMPHUR	OR
EPA 8270 D	FLUORENE	OR
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	OR
EPA 8270 D	HEXACHLOROPHENE	OR
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	OR
EPA 8270 D	ISOPHORONE	OR
EPA 8270 D	KEPONE	OR
EPA 8270 D	METHYL METHANESULFONATE	OR
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	OR
EPA 8270 D	N-NITROSODIETHYLAMINE	OR
EPA 8270 D	N-NITROSODIPHENYLAMINE	OR
EPA 8270 D	N-NITROSOMORPHOLINE	OR
EPA 8270 D	N-NITROSOPYRROLIDINE	OR
EPA 8270 D	NITROBENZENE	OR
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	OR
EPA 8270 D	PENTACHLOROBENZENE	OR
EPA 8270 D	PENTACHLOROPHENOL	OR
EPA 8270 D	PHENANTHRENE	OR
EPA 8270 D	PHORATE	OR
EPA 8270 D	PYRENE	OR
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	OR
EPA 8270 D	THIOPHENOL (BENZENETHIOL)	OR
EPA 8270 D - EXTENDED	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8270 D - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	OR
EPA 8270 D - EXTENDED	6-METHYLCHRYSENE	OR
EPA 8270 D - EXTENDED	AZOBENZENE	OR
EPA 8270 D - EXTENDED	CAPROLACTAM	OR
EPA 8270 D - EXTENDED	INDENE	OR
EPA 8270 D - EXTENDED	N-OCTADECANE	OR
EPA 8270 D - EXTENDED	QUINOLINE	OR
EPA 8315 A	FORMALDEHYDE	OR
EPA 9012 A	TOTAL CYANIDE	OR
EPA 9012 B	TOTAL CYANIDE	OR
EPA 9034	TOTAL SULFIDES	OR
EPA 9040 C	PH	OR
EPA 9056 A	BROMIDE	OR
EPA 9056 A	FLUORIDE	OR
EPA 9056 A	NITRITE	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 D	HEXACHLOROETHANE	OR
EPA 8270 D	HEXACHLOROPROPENE	OR
EPA 8270 D	ISODRIN	OR
EPA 8270 D	ISOSAFROLE	OR
EPA 8270 D	METHAPYRILENE	OR
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	OR
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	OR
EPA 8270 D	N-NITROSODIMETHYLAMINE	OR
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	OR
EPA 8270 D	N-NITROSOPIPERIDINE	OR
EPA 8270 D	NAPHTHALENE	OR
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	OR
EPA 8270 D	PARATHION (PARATHION - ETHYL)	OR
EPA 8270 D	PENTACHLORONITROBENZENE	OR
EPA 8270 D	PHENACETIN	OR
EPA 8270 D	PHENOL	OR
EPA 8270 D	PRONAMIDE (KERB)	OR
EPA 8270 D	SAFROLE	OR
EPA 8270 D	THIONAZIN (ZINOPHOS)	OR
EPA 8270 D - EXTENDED	1,1'-BIPHENYL	OR
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	OR
EPA 8270 D - EXTENDED	3+4-METHYLPHENOL (M+P CRESOL)	OR
EPA 8270 D - EXTENDED	ATRAZINE	OR
EPA 8270 D - EXTENDED	BENZALDEHYDE	OR
EPA 8270 D - EXTENDED	DIBENZ(A,H) ACRIDINE	OR
EPA 8270 D - EXTENDED	N-DECANE	OR
EPA 8270 D - EXTENDED	PYRIDINE	OR
EPA 8270 D SIM	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 9012 A	AMENABLE CYANIDE	OR
EPA 9012 B	AMENABLE CYANIDE	OR
EPA 9030 B	PREP: SULFIDE	OR
EPA 9040 B	PH	OR
EPA 9050 A	CONDUCTIVITY	OR
EPA 9056 A	CHLORIDE	OR
EPA 9056 A	NITRATE AS N	OR
EPA 9056 A	SULFATE	OR

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 9060	TOTAL ORGANIC CARBON	OR
EPA 9065	TOTAL PHENOLICS	OR
EPA 9251	CHLORIDE	OR
RSK-175	ETHENE	OR
SM 2320 B-1997	ALKALINITY AS CACO3	OR
SM 2510 B-1997	CONDUCTIVITY	OR
SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	OR
SM 2540 F-1997	RESIDUE-SETTLEABLE	OR
SM 3500-FE B-1997	IRON	OR
SM 4500-CN⁻ E-1999	CYANIDE	OR
SM 4500-F⁻ C-1997	FLUORIDE	OR
SM 4500-NH3 C-1997	AMMONIA AS N	OR
SM 4500-NORG C-1997	KJELDAHL NITROGEN - TOTAL	OR
SM 4500-P E-1999	PHOSPHORUS, TOTAL	OR
SM 5210 B-2001	BIOCHEMICAL OXYGEN DEMAND	OR
SM 5220 D-1997	CHEMICAL OXYGEN DEMAND	OR
SM 5540 C-1993	SURFACTANTS - MBAS	OR

METHOD	ANALYTE	PRIMARY
EPA 9060 A	TOTAL ORGANIC CARBON	OR
EPA 9095 B	FREE LIQUID	OR
RSK-175	ETHANE	OR
RSK-175	METHANE	OR
SM 2340 B-1997	TOTAL HARDNESS AS CACO3	OR
SM 2540 B-1997	RESIDUE-TOTAL	OR
SM 2540 D-1997	RESIDUE-NONFILTERABLE (TSS)	OR
SM 3500-CR B-2009	CHROMIUM VI	OR
SM 4500-CL⁻ E-1997	CHLORIDE	OR
SM 4500-CN⁻ G-1999	AMENABLE CYANIDE	OR
SM 4500-NH3 B-1997	AMMONIA AS N	OR
SM 4500-NH3 D-1997	AMMONIA AS N	OR
SM 4500-P E-1999	ORTHOPHOSPHATE AS P	OR
SM 4500-S2⁻ F-2000	SULFIDE	OR
SM 5210 B-2001	CARBONACEOUS BOD, CBOD	OR
SM 5310 C-2000	TOTAL ORGANIC CARBON	OR

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
ASTM D3987-06	PREP: SHAKE EXTRACTION OF SOLID WASTEW WITH WATER	OR
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	OR
EPA 1630	METHYL MERCURY	OR
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	OR
EPA 3051 A	PREP: MICROWAVE ASSISTED ACID DIGESTION OF SEDIMENTS, SLUDGES, SOILS, AND OILS	OR
EPA 3540 C	PREP: SOXHLET EXTRACTION	OR
EPA 3550 B	PREP: ULTRASONIC EXTRACTION	OR
EPA 3580 A	PREP: WASTE DILUTION	OR
EPA 3620 C	PREP: FLORISIL CLEANUP	OR
EPA 3650 B	PREP: ACID BASE PARTITION CLEANUP	OR
EPA 3665 A	SULFURIC ACID/PERMANGANATE CLEAN-UP	OR
EPA 5035	PREP: CLOSED-SYSTEM PURGE AND TRAP AND EXTRACTION	OR
EPA 6010 B	ALUMINUM	OR
EPA 6010 B	ARSENIC	OR

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	OR
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	OR
EPA 1631 E	MERCURY	OR
EPA 3051	PREP: MICROWAVE ASSISTED ACID DIGESTION OF SEDIMENTS, SLUDGES, SOILS, AND OILS	OR
EPA 3060 A	PREP: HEXAVALENT CHROMIUM	OR
EPA 3546	PREP: MICROWAVE EXTRACTION	OR
EPA 3550 C	PREP: ULTRASONIC EXTRACTION	OR
EPA 3620 B	PREP: FLORISIL CLEANUP	OR
EPA 3640 A	PREP: GEL PERMEATION CLEANUP	OR
EPA 3660 B	PREP: SULFUR CLEANUP	OR
EPA 5030 B	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	OR
EPA 5035 A	PREP: CLOSED-SYSTEM PURGE AND TRAP AND EXTRACTION	OR
EPA 6010 B	ANTIMONY	OR
EPA 6010 B	BARIUM	OR

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 6010 B	BERYLLIUM	OR
EPA 6010 B	CADMIUM	OR
EPA 6010 B	CHROMIUM	OR
EPA 6010 B	COPPER	OR
EPA 6010 B	LEAD	OR
EPA 6010 B	MAGNESIUM	OR
EPA 6010 B	MOLYBDENUM	OR
EPA 6010 B	POTASSIUM	OR
EPA 6010 B	SILICA AS SIO2	OR
EPA 6010 B	SODIUM	OR
EPA 6010 B	THALLIUM	OR
EPA 6010 B	TITANIUM	OR
EPA 6010 B	ZINC	OR
EPA 6010 C	ALUMINUM	OR
EPA 6010 C	ARSENIC	OR
EPA 6010 C	BERYLLIUM	OR
EPA 6010 C	CADMIUM	OR
EPA 6010 C	CHROMIUM	OR
EPA 6010 C	COPPER	OR
EPA 6010 C	LEAD	OR
EPA 6010 C	MAGNESIUM	OR
EPA 6010 C	MOLYBDENUM	OR
EPA 6010 C	POTASSIUM	OR
EPA 6010 C	SILICA AS SIO2	OR
EPA 6010 C	SODIUM	OR
EPA 6010 C	THALLIUM	OR
EPA 6010 C	TITANIUM	OR
EPA 6010 C	ZINC	OR
EPA 6020	ALUMINUM	OR
EPA 6020	ARSENIC	OR
EPA 6020	BERYLLIUM	OR
EPA 6020	CHROMIUM	OR
EPA 6020	COPPER	OR
EPA 6020	MANGANESE	OR
EPA 6020	SILVER	OR
EPA 6020	ZINC	OR
EPA 6020 - EXTENDED	CALCIUM	OR
EPA 6020 - EXTENDED	MAGNESIUM	OR
EPA 6020 - EXTENDED	POTASSIUM	OR

METHOD	ANALYTE	PRIMARY
EPA 6010 B	BORON	OR
EPA 6010 B	CALCIUM	OR
EPA 6010 B	COBALT	OR
EPA 6010 B	IRON	OR
EPA 6010 B	LITHIUM	OR
EPA 6010 B	MANGANESE	OR
EPA 6010 B	NICKEL	OR
EPA 6010 B	SELENIUM	OR
EPA 6010 B	SILVER	OR
EPA 6010 B	STRONTIUM	OR
EPA 6010 B	TIN	OR
EPA 6010 B	VANADIUM	OR
EPA 6010 B - EXTENDED	SILICON	OR
EPA 6010 C	ANTIMONY	OR
EPA 6010 C	BARIUM	OR
EPA 6010 C	BORON	OR
EPA 6010 C	CALCIUM	OR
EPA 6010 C	COBALT	OR
EPA 6010 C	IRON	OR
EPA 6010 C	LITHIUM	OR
EPA 6010 C	MANGANESE	OR
EPA 6010 C	NICKEL	OR
EPA 6010 C	SELENIUM	OR
EPA 6010 C	SILVER	OR
EPA 6010 C	STRONTIUM	OR
EPA 6010 C	TIN	OR
EPA 6010 C	VANADIUM	OR
EPA 6010 C - EXTENDED	SILICON	OR
EPA 6020	ANTIMONY	OR
EPA 6020	BARIUM	OR
EPA 6020	CADMIUM	OR
EPA 6020	COBALT	OR
EPA 6020	LEAD	OR
EPA 6020	NICKEL	OR
EPA 6020	THALLIUM	OR
EPA 6020 - EXTENDED	BORON	OR
EPA 6020 - EXTENDED	IRON	OR
EPA 6020 - EXTENDED	MOLYBDENUM	OR
EPA 6020 - EXTENDED	SELENIUM	OR

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 6020 - EXTENDED	SODIUM	OR
EPA 6020 - EXTENDED	TIN	OR
EPA 6020 - EXTENDED	VANADIUM	OR
EPA 6020 A	ANTIMONY	OR
EPA 6020 A	BARIUM	OR
EPA 6020 A	CADMIUM	OR
EPA 6020 A	CHROMIUM	OR
EPA 6020 A	COPPER	OR
EPA 6020 A	LEAD	OR
EPA 6020 A	MANGANESE	OR
EPA 6020 A	POTASSIUM	OR
EPA 6020 A	SILVER	OR
EPA 6020 A	THALLIUM	OR
EPA 6020 A	ZINC	OR
EPA 6020 A - EXTENDED	MOLYBDENUM	OR
EPA 6020 A - EXTENDED	TIN	OR
EPA 7196 A	CHROMIUM VI	OR
EPA 7471 B	MERCURY	OR
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	OR
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	OR
EPA 8015 D	GASOLINE RANGE ORGANICS (GRO)	OR
EPA 8081 A	4,4'-DDE	OR
EPA 8081 A	ALDRIN	OR
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	OR
EPA 8081 A	CHLORDANE (TECH.)	OR
EPA 8081 A	DELTA-BHC	OR
EPA 8081 A	DIELDRIN	OR
EPA 8081 A	ENDOSULFAN II	OR
EPA 8081 A	ENDRIN	OR
EPA 8081 A	ENDRIN KETONE	OR
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	OR
EPA 8081 A	HEPTACHLOR EPOXIDE	OR

METHOD	ANALYTE	PRIMARY
EPA 6020 - EXTENDED	STRONTIUM	OR
EPA 6020 - EXTENDED	TITANIUM	OR
EPA 6020 A	ALUMINUM	OR
EPA 6020 A	ARSENIC	OR
EPA 6020 A	BERYLLIUM	OR
EPA 6020 A	CALCIUM	OR
EPA 6020 A	COBALT	OR
EPA 6020 A	IRON	OR
EPA 6020 A	MAGNESIUM	OR
EPA 6020 A	NICKEL	OR
EPA 6020 A	SELENIUM	OR
EPA 6020 A	SODIUM	OR
EPA 6020 A	VANADIUM	OR
EPA 6020 A - EXTENDED	BORON	OR
EPA 6020 A - EXTENDED	STRONTIUM	OR
EPA 6020 A - EXTENDED	TITANIUM	OR
EPA 7471 A	MERCURY	OR
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	OR
EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	OR
EPA 8015 D	DIESEL RANGE ORGANICS (DRO)	OR
EPA 8081 A	4,4'-DDD	OR
EPA 8081 A	4,4'-DDT	OR
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 A	CHLOROBENZILATE	OR
EPA 8081 A	DIALLATE	OR
EPA 8081 A	ENDOSULFAN I	OR
EPA 8081 A	ENDOSULFAN SULFATE	OR
EPA 8081 A	ENDRIN ALDEHYDE	OR
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 A	HEPTACHLOR	OR
EPA 8081 A	HEXACHLOROBENZENE	OR

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METHOD	ANALYTE	PRIMARY
EPA 8081 A	ISODRIN	OR
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	OR
EPA 8081 A - EXTENDED	MIREX	OR
EPA 8081 B	4,4'-DDE	OR
EPA 8081 B	ALDRIN	OR
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	OR
EPA 8081 B	CHLORDANE (TECH.)	OR
EPA 8081 B	DELTA-BHC	OR
EPA 8081 B	DIELDRIN	OR
EPA 8081 B	ENDOSULFAN II	OR
EPA 8081 B	ENDRIN	OR
EPA 8081 B	ENDRIN KETONE	OR
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	OR
EPA 8081 B	HEPTACHLOR EPOXIDE	OR
EPA 8081 B	ISODRIN	OR
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	OR
EPA 8081 B - EXTENDED	MIREX	OR
EPA 8082	AROCLOR-1221 (PCB-1221)	OR
EPA 8082	AROCLOR-1242 (PCB-1242)	OR
EPA 8082	AROCLOR-1254 (PCB-1254)	OR
EPA 8082 - EXTENDED	AROCLOR-1262 (PCB-1262)	OR
EPA 8082 A	AROCLOR-1016 (PCB-1016)	OR
EPA 8082 A	AROCLOR-1232 (PCB-1232)	OR
EPA 8082 A	AROCLOR-1248 (PCB-1248)	OR
EPA 8082 A	AROCLOR-1260 (PCB-1260)	OR
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	OR
EPA 8151 A	2,4-D	OR
EPA 8151 A	DALAPON	OR
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	OR
EPA 8151 A	MCPA	OR
EPA 8151 A	PENTACHLOROPHENOL	OR
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	OR

METHOD	ANALYTE	PRIMARY
EPA 8081 A	METHOXYCHLOR	OR
EPA 8081 A - EXTENDED	KEPONE	OR
EPA 8081 B	4,4'-DDD	OR
EPA 8081 B	4,4'-DDT	OR
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 B	CHLOROBENZILATE	OR
EPA 8081 B	DIALLATE	OR
EPA 8081 B	ENDOSULFAN I	OR
EPA 8081 B	ENDOSULFAN SULFATE	OR
EPA 8081 B	ENDRIN ALDEHYDE	OR
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	OR
EPA 8081 B	HEPTACHLOR	OR
EPA 8081 B	HEXACHLOROBENZENE	OR
EPA 8081 B	METHOXYCHLOR	OR
EPA 8081 B - EXTENDED	KEPONE	OR
EPA 8082	AROCLOR-1016 (PCB-1016)	OR
EPA 8082	AROCLOR-1232 (PCB-1232)	OR
EPA 8082	AROCLOR-1248 (PCB-1248)	OR
EPA 8082	AROCLOR-1260 (PCB-1260)	OR
EPA 8082 - EXTENDED	AROCLOR-1268 (PCB-1268)	OR
EPA 8082 A	AROCLOR-1221 (PCB-1221)	OR
EPA 8082 A	AROCLOR-1242 (PCB-1242)	OR
EPA 8082 A	AROCLOR-1254 (PCB-1254)	OR
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	OR
EPA 8151 A	2,4,5-T	OR
EPA 8151 A	2,4-DB	OR
EPA 8151 A	DICAMBA	OR
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	OR
EPA 8151 A	MCPP	OR
EPA 8151 A	SILVEX (2,4,5-TP)	OR
EPA 8260 B	1,1,1-TRICHLOROETHANE	OR

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	OR
EPA 8260 B	1,1-DICHLOROETHANE	OR
EPA 8260 B	1,1-DICHLOROPROPENE	OR
EPA 8260 B	1,2,3-TRICHLOROPROPANE	OR
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	OR
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	OR
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	OR
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	OR
EPA 8260 B	1,3-DICHLOROPROPANE	OR
EPA 8260 B	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8260 B	2,2-DICHLOROPROPANE	OR
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	OR
EPA 8260 B	2-HEXANONE	OR
EPA 8260 B	4-CHLOROTOLUENE	OR
EPA 8260 B	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	OR
EPA 8260 B	ACETONITRILE	OR
EPA 8260 B	ACRYLONITRILE	OR
EPA 8260 B	BENZENE	OR
EPA 8260 B	BROMOBENZENE	OR
EPA 8260 B	BROMODICHLOROMETHANE	OR
EPA 8260 B	CARBON DISULFIDE	OR
EPA 8260 B	CHLOROBENZENE	OR
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	OR
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	OR
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	OR
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	OR
EPA 8260 B	ETHYL ACETATE	OR
EPA 8260 B	ETHYLBENZENE	OR
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	OR
EPA 8260 B	ISOPROPYLBENZENE	OR
EPA 8260 B	METHACRYLONITRILE	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,1,2-TRICHLOROETHANE	OR
EPA 8260 B	1,1-DICHLOROETHYLENE	OR
EPA 8260 B	1,2,3-TRICHLOROBENZENE	OR
EPA 8260 B	1,2,4-TRICHLOROBENZENE	OR
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	OR
EPA 8260 B	1,2-DICHLOROBENZENE	OR
EPA 8260 B	1,2-DICHLOROPROPANE	OR
EPA 8260 B	1,3-DICHLOROBENZENE	OR
EPA 8260 B	1,4-DICHLOROBENZENE	OR
EPA 8260 B	1-BUTANOL (N-BUTANOL)	OR
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	OR
EPA 8260 B	2-CHLOROTOLUENE	OR
EPA 8260 B	2-NITROPROPANE	OR
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	OR
EPA 8260 B	ACETONE	OR
EPA 8260 B	ACROLEIN (PROPENAL)	OR
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	OR
EPA 8260 B	BENZYL CHLORIDE	OR
EPA 8260 B	BROMOCHLOROMETHANE	OR
EPA 8260 B	BROMOFORM	OR
EPA 8260 B	CARBON TETRACHLORIDE	OR
EPA 8260 B	CHLORODIBROMOMETHANE	OR
EPA 8260 B	CHLOROFORM	OR
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	OR
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	OR
EPA 8260 B	DIETHYL ETHER	OR
EPA 8260 B	ETHYL METHACRYLATE	OR
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	OR
EPA 8260 B	M+P-XYLENE	OR
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	OR

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	OR
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	OR
EPA 8260 B	N-BUTYLBENZENE	OR
EPA 8260 B	NAPHTHALENE	OR
EPA 8260 B	PENTACHLOROETHANE	OR
EPA 8260 B	SEC-BUTYLBENZENE	OR
EPA 8260 B	TERT-BUTYL ALCOHOL	OR
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	OR
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	OR
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	OR
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	OR
EPA 8260 B	VINYL CHLORIDE	OR
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	OR
EPA 8260 B - EXTENDED	1,3,5-TRICHLOROBENZENE	OR
EPA 8260 B - EXTENDED	CYCLOHEXANE	OR
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	OR
EPA 8260 B - EXTENDED	METHYL ACETATE	OR
EPA 8260 B - EXTENDED	N-HEPTANE	OR
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	OR
EPA 8260 B SIM	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8260 C	1,1,1-TRICHLOROETHANE	OR
EPA 8260 C	1,1,2-TRICHLOROETHANE	OR
EPA 8260 C	1,1-DICHLOROETHYLENE	OR
EPA 8260 C	1,2,3-TRICHLOROBENZENE	OR
EPA 8260 C	1,2,4-TRICHLOROBENZENE	OR
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	OR
EPA 8260 C	1,2-DICHLOROBENZENE	OR
EPA 8260 C	1,2-DICHLOROPROPANE	OR
EPA 8260 C	1,3-DICHLOROBENZENE	OR
EPA 8260 C	1,4-DICHLOROBENZENE	OR
EPA 8260 C	1-BUTANOL (N-BUTANOL)	OR
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 B	METHYL METHACRYLATE	OR
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	OR
EPA 8260 B	N-PROPYLBENZENE	OR
EPA 8260 B	O-XYLENE	OR
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	OR
EPA 8260 B	STYRENE	OR
EPA 8260 B	TERT-BUTYLBENZENE	OR
EPA 8260 B	TOLUENE	OR
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	OR
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	OR
EPA 8260 B	VINYL ACETATE	OR
EPA 8260 B	XYLENE (TOTAL)	OR
EPA 8260 B - EXTENDED	1,2,3-TRIMETHYLBENZENE	OR
EPA 8260 B - EXTENDED	2-METHYLNAPHTHALENE	OR
EPA 8260 B - EXTENDED	CYCLOHEXANONE	OR
EPA 8260 B - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	OR
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	OR
EPA 8260 B - EXTENDED	N-HEXANE	OR
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	OR
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	OR
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	OR
EPA 8260 C	1,1-DICHLOROETHANE	OR
EPA 8260 C	1,1-DICHLOROPROPENE	OR
EPA 8260 C	1,2,3-TRICHLOROPROPANE	OR
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	OR
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	OR
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	OR
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	OR
EPA 8260 C	1,3-DICHLOROPROPANE	OR
EPA 8260 C	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8260 C	2,2-DICHLOROPROPANE	OR
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	OR

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 C	2-CHLOROTOLUENE	OR
EPA 8260 C	2-NITROPROPANE	OR
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	OR
EPA 8260 C	ACETONE	OR
EPA 8260 C	ACROLEIN (PROPENAL)	OR
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	OR
EPA 8260 C	BENZYL CHLORIDE	OR
EPA 8260 C	BROMOCHLOROMETHANE	OR
EPA 8260 C	BROMOFORM	OR
EPA 8260 C	CARBON TETRACHLORIDE	OR
EPA 8260 C	CHLORODIBROMOMETHANE	OR
EPA 8260 C	CHLOROFORM	OR
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	OR
EPA 8260 C	CYCLOHEXANE	OR
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	OR
EPA 8260 C	ETHYL ACETATE	OR
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	OR
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	OR
EPA 8260 C	M+P-XYLENE	OR
EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	OR
EPA 8260 C	METHYL METHACRYLATE	OR
EPA 8260 C	METHYLCYCLOHEXANE	OR
EPA 8260 C	N-BUTYLBENZENE	OR
EPA 8260 C	NAPHTHALENE	OR
EPA 8260 C	PENTACHLOROETHANE	OR
EPA 8260 C	SEC-BUTYLBENZENE	OR
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	OR
EPA 8260 C	TERT-BUTYLBENZENE	OR
EPA 8260 C	TOLUENE	OR
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 C	2-HEXANONE	OR
EPA 8260 C	4-CHLOROTOLUENE	OR
EPA 8260 C	4-METHYL-2-PENTANONE (METHYL ISOBUTYL KETONE, MIBK)	OR
EPA 8260 C	ACETONITRILE	OR
EPA 8260 C	ACRYLONITRILE	OR
EPA 8260 C	BENZENE	OR
EPA 8260 C	BROMOBENZENE	OR
EPA 8260 C	BROMODICHLOROMETHANE	OR
EPA 8260 C	CARBON DISULFIDE	OR
EPA 8260 C	CHLOROBENZENE	OR
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	OR
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	OR
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	OR
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	OR
EPA 8260 C	DIETHYL ETHER	OR
EPA 8260 C	ETHYL METHACRYLATE	OR
EPA 8260 C	ETHYLBENZENE	OR
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	OR
EPA 8260 C	ISOPROPYLBENZENE	OR
EPA 8260 C	METHACRYLONITRILE	OR
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	OR
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	OR
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	OR
EPA 8260 C	N-PROPYLBENZENE	OR
EPA 8260 C	O-XYLENE	OR
EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	OR
EPA 8260 C	STYRENE	OR
EPA 8260 C	TERT-BUTYL ALCOHOL	OR
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	OR
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	OR
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	OR

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	OR
EPA 8260 C	VINYL ACETATE	OR
EPA 8260 C	XYLENE (TOTAL)	OR
EPA 8260 C - EXTENDED	1,3,5-TRICHLOROBENZENE	OR
EPA 8260 C - EXTENDED	CYCLOHEXANONE	OR
EPA 8260 C - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	OR
EPA 8260 C - EXTENDED	N-HEPTANE	OR
EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	OR
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	OR
EPA 8270 C	1,2-DICHLOROBENZENE	OR
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	OR
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	OR
EPA 8270 C	1,4-DINITROBENZENE	OR
EPA 8270 C	1,4-PHENYLENEDIAMINE	OR
EPA 8270 C	1-NAPHTHYLAMINE	OR
EPA 8270 C	2,4,5-TRICHLOROPHENOL	OR
EPA 8270 C	2,4-DIAMINOTOLUENE	OR
EPA 8270 C	2,4-DIMETHYLPHENOL	OR
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	OR
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	OR
EPA 8270 C	2-CHLORONAPHTHALENE	OR
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	OR
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	OR
EPA 8270 C	2-NITROANILINE	OR
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	OR
EPA 8270 C	3,3'-DIMETHOXYBENZIDINE	OR
EPA 8270 C	3-METHYLCHOLANTHRENE	OR
EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	OR
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	OR
EPA 8270 C	4-CHLOROANILINE	OR
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	OR
EPA 8270 C	4-NITROPHENOL	OR
EPA 8270 C	5-NITRO-O-TOLUIDINE	OR

METHOD	ANALYTE	PRIMARY
EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	OR
EPA 8260 C	VINYL CHLORIDE	OR
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	OR
EPA 8260 C - EXTENDED	2-METHYLNAPHTHALENE	OR
EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	OR
EPA 8260 C - EXTENDED	METHYL ACETATE	OR
EPA 8260 C - EXTENDED	N-HEXANE	OR
EPA 8260 C SIM	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8270 C	1,2,4-TRICHLOROBENZENE	OR
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	OR
EPA 8270 C	1,3-DICHLOROBENZENE	OR
EPA 8270 C	1,4-DICHLOROBENZENE	OR
EPA 8270 C	1,4-NAPHTHOQUINONE	OR
EPA 8270 C	1-CHLORONAPHTHALENE	OR
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	OR
EPA 8270 C	2,4,6-TRICHLOROPHENOL	OR
EPA 8270 C	2,4-DICHLOROPHENOL	OR
EPA 8270 C	2,4-DINITROPHENOL	OR
EPA 8270 C	2,6-DICHLOROPHENOL	OR
EPA 8270 C	2-ACETYLAMINOFLUORENE	OR
EPA 8270 C	2-CHLOROPHENOL	OR
EPA 8270 C	2-METHYLNAPHTHALENE	OR
EPA 8270 C	2-NAPHTHYLAMINE	OR
EPA 8270 C	2-NITROPHENOL	OR
EPA 8270 C	3,3'-DICHLOROBENZIDINE	OR
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	OR
EPA 8270 C	3-NITROANILINE	OR
EPA 8270 C	4-AMINOBIPHENYL	OR
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	OR
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	OR
EPA 8270 C	4-NITROANILINE	OR
EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	OR
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	OR

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	OR
EPA 8270 C	ACENAPHTHYLENE	OR
EPA 8270 C	ANILINE	OR
EPA 8270 C	ARAMITE	OR
EPA 8270 C	BENZO(A)ANTHRACENE	OR
EPA 8270 C	BENZO(B)FLUORANTHENE	OR
EPA 8270 C	BENZO(K)FLUORANTHENE	OR
EPA 8270 C	BENZYL ALCOHOL	OR
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	OR
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	OR
EPA 8270 C	CHLOROBENZILATE	OR
EPA 8270 C	DI-N-BUTYL PHTHALATE	OR
EPA 8270 C	DIALLATE	OR
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	OR
EPA 8270 C	DIETHYL PHTHALATE	OR
EPA 8270 C	DIMETHYL PHTHALATE	OR
EPA 8270 C	DIPHENYLAMINE	OR
EPA 8270 C	ETHYL METHANESULFONATE	OR
EPA 8270 C	FLUORANTHENE	OR
EPA 8270 C	HEXACHLOROBENZENE	OR
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	OR
EPA 8270 C	HEXACHLOROPHENE	OR
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	OR
EPA 8270 C	ISOPHORONE	OR
EPA 8270 C	METHAPYRILENE	OR
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	OR
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	OR
EPA 8270 C	N-NITROSODIMETHYLAMINE	OR
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	OR
EPA 8270 C	N-NITROSOPIPERIDINE	OR
EPA 8270 C	NAPHTHALENE	OR
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	OR
EPA 8270 C	PARATHION (PARATHION - ETHYL)	OR
EPA 8270 C	PENTACHLORONITROBENZENE	OR
EPA 8270 C	PHENACETIN	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 C	ACENAPHTHENE	OR
EPA 8270 C	ACETOPHENONE	OR
EPA 8270 C	ANTHRACENE	OR
EPA 8270 C	BENZIDINE	OR
EPA 8270 C	BENZO(A)PYRENE	OR
EPA 8270 C	BENZO(G,H,I)PERYLENE	OR
EPA 8270 C	BENZOIC ACID	OR
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	OR
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	OR
EPA 8270 C	BUTYL BENZYL PHTHALATE	OR
EPA 8270 C	CHRYSENE	OR
EPA 8270 C	DI-N-OCTYL PHTHALATE	OR
EPA 8270 C	DIBENZ(A, J) ACRIDINE	OR
EPA 8270 C	DIBENZOFURAN	OR
EPA 8270 C	DIMETHOATE	OR
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	OR
EPA 8270 C	DISULFOTON	OR
EPA 8270 C	FAMPHUR	OR
EPA 8270 C	FLUORENE	OR
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8270 C	HEXACHLOROETHANE	OR
EPA 8270 C	HEXACHLOROPROPENE	OR
EPA 8270 C	ISODRIN	OR
EPA 8270 C	ISOSAFROLE	OR
EPA 8270 C	METHYL METHANESULFONATE	OR
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	OR
EPA 8270 C	N-NITROSODIETHYLAMINE	OR
EPA 8270 C	N-NITROSODIPHENYLAMINE	OR
EPA 8270 C	N-NITROSOMORPHOLINE	OR
EPA 8270 C	N-NITROSOPYRROLIDINE	OR
EPA 8270 C	NITROBENZENE	OR
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	OR
EPA 8270 C	PENTACHLOROBENZENE	OR
EPA 8270 C	PENTACHLOROPHENOL	OR
EPA 8270 C	PHENANTHRENE	OR

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 8028

Testamerica Laboratories, Inc.
4101 Shuffel Street N.W.
North Canton, OH 44720

Virginia Laboratory ID: 460175
Effective Date: September 15, 2015
Expiration Date: September 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	PHENOL	OR
EPA 8270 C	PRONAMIDE (KERB)	OR
EPA 8270 C	PYRIDINE	OR
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	OR
EPA 8270 C	THIOPHENOL (BENZENETHIOL)	OR
EPA 8270 C - EXTENDED	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8270 C - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	OR
EPA 8270 C - EXTENDED	ATRAZINE	OR
EPA 8270 C - EXTENDED	CAPROLACTAM	OR
EPA 8270 C - EXTENDED	DIBENZ(A,H) ACRIDINE	OR
EPA 8270 C - EXTENDED	N-OCTADECANE	OR
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	OR
EPA 8270 D	1,2-DICHLOROBENZENE	OR
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	OR
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	OR
EPA 8270 D	1,4-DINITROBENZENE	OR
EPA 8270 D	1,4-PHENYLENEDIAMINE	OR
EPA 8270 D	1-NAPHTHYLAMINE	OR
EPA 8270 D	2,4,5-TRICHLOROPHENOL	OR
EPA 8270 D	2,4-DIAMINOTOLUENE	OR
EPA 8270 D	2,4-DIMETHYLPHENOL	OR
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	OR
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	OR
EPA 8270 D	2-CHLORONAPHTHALENE	OR
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	OR
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	OR
EPA 8270 D	2-NITROANILINE	OR
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	OR
EPA 8270 D	3,3'-DIMETHOXYBENZIDINE	OR
EPA 8270 D	3-METHYLCHOLANTHRENE	OR
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	OR
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	OR
EPA 8270 D	4-CHLOROANILINE	OR
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	OR
EPA 8270 D	4-NITROPHENOL	OR
EPA 8270 D	5-NITRO-O-TOLUIDINE	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 C	PHORATE	OR
EPA 8270 C	PYRENE	OR
EPA 8270 C	SAFROLE	OR
EPA 8270 C	THIONAZIN (ZINOPHOS)	OR
EPA 8270 C - EXTENDED	1,1'-BIPHENYL	OR
EPA 8270 C - EXTENDED	1-METHYLNAPHTHALENE	OR
EPA 8270 C - EXTENDED	3+4-METHYLPHENOL (M+P CRESOL)	OR
EPA 8270 C - EXTENDED	BENZALDEHYDE	OR
EPA 8270 C - EXTENDED	CARBAZOLE	OR
EPA 8270 C - EXTENDED	INDENE	OR
EPA 8270 C - EXTENDED	PENTACHLOROETHANE	OR
EPA 8270 D	1,2,4-TRICHLOROBENZENE	OR
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	OR
EPA 8270 D	1,3-DICHLOROBENZENE	OR
EPA 8270 D	1,4-DICHLOROBENZENE	OR
EPA 8270 D	1,4-NAPHTHOQUINONE	OR
EPA 8270 D	1-CHLORONAPHTHALENE	OR
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	OR
EPA 8270 D	2,4,6-TRICHLOROPHENOL	OR
EPA 8270 D	2,4-DICHLOROPHENOL	OR
EPA 8270 D	2,4-DINITROPHENOL	OR
EPA 8270 D	2,6-DICHLOROPHENOL	OR
EPA 8270 D	2-ACETYLAMINOFLUORENE	OR
EPA 8270 D	2-CHLOROPHENOL	OR
EPA 8270 D	2-METHYLNAPHTHALENE	OR
EPA 8270 D	2-NAPHTHYLAMINE	OR
EPA 8270 D	2-NITROPHENOL	OR
EPA 8270 D	3,3'-DICHLOROBENZIDINE	OR
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	OR
EPA 8270 D	3-NITROANILINE	OR
EPA 8270 D	4-AMINOBIPHENYL	OR
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	OR
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	OR
EPA 8270 D	4-NITROANILINE	OR
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	OR

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	OR
EPA 8270 D	ACENAPHTHENE	OR
EPA 8270 D	ACETOPHENONE	OR
EPA 8270 D	ANTHRACENE	OR
EPA 8270 D	BENZIDINE	OR
EPA 8270 D	BENZO(A)PYRENE	OR
EPA 8270 D	BENZO(G,H,I)PERYLENE	OR
EPA 8270 D	BENZOIC ACID	OR
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	OR
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	OR
EPA 8270 D	BUTYL BENZYL PHTHALATE	OR
EPA 8270 D	CHRYSENE	OR
EPA 8270 D	DI-N-OCTYL PHTHALATE	OR
EPA 8270 D	DIBENZ(A, J) ACRIDINE	OR
EPA 8270 D	DIBENZOFURAN	OR
EPA 8270 D	DIMETHOATE	OR
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	OR
EPA 8270 D	DISULFOTON	OR
EPA 8270 D	FAMPHUR	OR
EPA 8270 D	FLUORENE	OR
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 8270 D	HEXACHLOROETHANE	OR
EPA 8270 D	HEXACHLOROPROPENE	OR
EPA 8270 D	ISODRIN	OR
EPA 8270 D	ISOSAFROLE	OR
EPA 8270 D	METHYL METHANESULFONATE	OR
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	OR
EPA 8270 D	N-NITROSODIETHYLAMINE	OR
EPA 8270 D	N-NITROSODIPHENYLAMINE	OR
EPA 8270 D	N-NITROSOMORPHOLINE	OR
EPA 8270 D	N-NITROSOPYRROLIDINE	OR
EPA 8270 D	NITROBENZENE	OR
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	OR
EPA 8270 D	PENTACHLOROBENZENE	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	OR
EPA 8270 D	ACENAPHTHYLENE	OR
EPA 8270 D	ANILINE	OR
EPA 8270 D	ARAMITE	OR
EPA 8270 D	BENZO(A)ANTHRACENE	OR
EPA 8270 D	BENZO(B)FLUORANTHENE	OR
EPA 8270 D	BENZO(K)FLUORANTHENE	OR
EPA 8270 D	BENZYL ALCOHOL	OR
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	OR
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	OR
EPA 8270 D	CHLOROBENZILATE	OR
EPA 8270 D	DI-N-BUTYL PHTHALATE	OR
EPA 8270 D	DIALLATE	OR
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	OR
EPA 8270 D	DIETHYL PHTHALATE	OR
EPA 8270 D	DIMETHYL PHTHALATE	OR
EPA 8270 D	DIPHENYLAMINE	OR
EPA 8270 D	ETHYL METHANESULFONATE	OR
EPA 8270 D	FLUORANTHENE	OR
EPA 8270 D	HEXACHLOROBENZENE	OR
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	OR
EPA 8270 D	HEXACHLOROPHENE	OR
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	OR
EPA 8270 D	ISOPHORONE	OR
EPA 8270 D	METHAPYRILENE	OR
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	OR
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	OR
EPA 8270 D	N-NITROSODIMETHYLAMINE	OR
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	OR
EPA 8270 D	N-NITROSOPIPERIDINE	OR
EPA 8270 D	NAPHTHALENE	OR
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	OR
EPA 8270 D	PARATHION (PARATHION - ETHYL)	OR
EPA 8270 D	PENTACHLORONITROBENZENE	OR

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Expiration Date: September 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	PENTACHLOROPHENOL	OR
EPA 8270 D	PHENANTHRENE	OR
EPA 8270 D	PHORATE	OR
EPA 8270 D	PYRENE	OR
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	OR
EPA 8270 D - EXTENDED	1,1'-BIPHENYL	OR
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	OR
EPA 8270 D - EXTENDED	3+4-METHYLPHENOL (M+P CRESOL)	OR
EPA 8270 D - EXTENDED	BENZALDEHYDE	OR
EPA 8270 D - EXTENDED	CARBAZOLE	OR
EPA 8270 D - EXTENDED	INDENE	OR
EPA 8270 D - EXTENDED	PENTACHLOROETHANE	OR
EPA 8270 D SIM	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	OR
EPA 9012 A	CYANIDE	OR
EPA 9012 B	TOTAL CYANIDE	OR
EPA 9030 B	PREP: SULFIDE	OR
EPA 9040 B	PH	OR
EPA 9045 C	PH	OR
EPA 9050 A	CONDUCTIVITY	OR
EPA 9056 A	CHLORIDE	OR
EPA 9056 A	NITRATE AS N	OR
EPA 9056 A	SULFATE	OR
EPA 9095 B	FREE LIQUID	OR

METHOD	ANALYTE	PRIMARY
EPA 8270 D	PHENACETIN	OR
EPA 8270 D	PHENOL	OR
EPA 8270 D	PRONAMIDE (KERB)	OR
EPA 8270 D	SAFROLE	OR
EPA 8270 D	THIONAZIN (ZINOPHOS)	OR
EPA 8270 D - EXTENDED	1,4-DIOXANE (P-DIOXANE /1,4-DIETHYLENEOXIDE)	OR
EPA 8270 D - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	OR
EPA 8270 D - EXTENDED	ATRAZINE	OR
EPA 8270 D - EXTENDED	CAPROLACTAM	OR
EPA 8270 D - EXTENDED	DIBENZ(A,H) ACRIDINE	OR
EPA 8270 D - EXTENDED	N-OCTADECANE	OR
EPA 8270 D - EXTENDED	PYRIDINE	OR
EPA 8315 A	FORMALDEHYDE	OR
EPA 9012 B	AMENABLE CYANIDE	OR
EPA 9023	EXTRACTABLE ORGANIC HALIDES (EOX)	OR
EPA 9034	TOTAL SULFIDES	OR
EPA 9040 C	PH	OR
EPA 9045 D	PH	OR
EPA 9056 A	BROMIDE	OR
EPA 9056 A	FLUORIDE	OR
EPA 9056 A	NITRITE	OR
EPA 9065	TOTAL PHENOLICS	OR
EPA 9251	CHLORIDE	OR

APPENDIX G

CORRESPONDENCE

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

June 28, 2016

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: 2015 Annual Soil Monitoring Report - Open Burning Ground (OBG), Notice of Deficiency, Radford Army Ammunition Plant (RAAP), Radford, Virginia, EPA ID#: VA1210020730

Dear Mr. Stewart:

The Virginia Department of Environmental Quality, Office of Financial Responsibility and Waste Programs (DEQ), received the Radford Army Ammunition Plant's (RAAP) **2015 Annual Soil Monitoring Report, Open Burning Ground, Radford Army Ammunition Plant, Radford, Virginia** (Report) on February 23, 2016. The report was prepared by Draper Aden Associates. RAAP is required to perform annual soil monitoring in accordance with the hazardous waste Permit Attachment II.C – *Soil Monitoring Program for the Open Burning Ground*.

This letter constitutes the DEQ's Notice of Deficiency addressing the 2015 Annual Soil Monitoring Report and includes comments 1-14 addressing it. In addition, comments 15 – 16 address the Quantitative Human Health Risk Assessment (QRA) for the OBG soils submitted to VDEQ in October 2015. Sonal Iyer's review memorandum dated May 16, 2016, addresses comment 15 (QRA) and is attached. The two documents are linked and the QRA is physically contained within the 2015 Annual Soil Monitoring Report.

Based on this review of the facility's Report, additional information will need to be submitted in response to the DEQ's comments.

Please review these comments, and submit the requested response on a comment by comment basis along with a revised Report or revised pages for insertion into the Report within 30 days of your receipt of this letter (July 28, 2016).

A meeting or teleconference can be scheduled to discuss the comments after RAAP has reviewed them.

If you should have any questions regarding these matters or would like to schedule a meeting to discuss them further, please contact me at (804) 698-4194 or by e-mail at russell.mcavoy@deq.virginia.gov.

Sincerely,

Russell L. McAvoy, Jr., P.E.

Russell McAvoy, PE
Environmental Engineer Senior
Office of Waste Permitting and Compliance

Attachments (4): Attachment II.C Table 1 2005.xls
Final Table 1 Attachment II-C Sept 26 2011.xls
OB Permit - SMP REVISED COPC Table Updated ALs (12-18-08).xls
Sonal Iyer's May 16, 2016, Memorandum

cc: Cassie McGoldrick, EPA, Region III (3LC50) w/attachments
Aziz Farahmand, DEQ, Blue Ridge Regional Office w/attachments
Kurt Kochan, DEQ, Northern Regional Office w/attachments
Sonal Iyer, DEQ, CO w/attachments
Leslie Romanchik, DEQ, CO wo/attachments
Ashby Scott, DEQ, CO w/attachments
Leslie Beckwith, DEQ, CO wo/attachments
Hasan Keceli, DEQ, CO w/attachments
Brett Fisher, DEQ, CO w/attachments
Maria Livaniou, DEQ wo/attachments

Attachment:

Notice of Deficiency for the:

2015 Annual Soil Monitoring Report, Open Burning Ground, Radford Army Ammunition Plant, Radford, Virginia

(Dated February 2015)

Radford Army Ammunition Plant

Radford, Virginia

EPA I.D. No. VA1210020730

1. The 2014 Soil Monitoring report addressing the Open Burning Ground (OBG) was 863 pages and the accompanying data package was 4905 pages. The entirety of the 2015 Soil Monitoring Report that was submitted on a link is 1025 pages. Is there a missing portion of the report? A data package?

2. Page 4/1025 of the 2015 SMR states, "The following additional activities were conducted in 2015 associated with the OBG Soil Monitoring Program: **(1)** RFAAP concluded permit-required interim measures as a result of a hot spot nitroglycerin detection in soil at sample location PAD-3 during the permit-required OBG Annual Soil Monitoring event conducted in July 2014. Based on the soil removal and confirmation sampling activities conducted on June 23, 2015, no further action is anticipated. The soil removal report was submitted to VDEQ on July 29, 2015 and final VDEQ review is pending. **(2)** As requested by VDEQ in correspondence dated April 29, 2015, a Quantitative Human Health Risk Assessment for the OBG soils was submitted to VDEQ in October 2015. The risk assessment concluded that the risks associated with OBG soils are below the regulatory thresholds and therefore, no further action is required. VDEQ review of the report is pending. **(3)** RFAAP submitted the OBG Permit Renewal application to VDEQ in 2015 and the permit renewal is pending."

   The status of the 3 items cited above is as follows:

   1. The soil removal report submitted on July 29, 2015, is approved.
   2. Due to the DEQ's recent granted extension, the facility has until June 9, 2016, to respond to the concerns raised in the DEQ's NOD dated February 10, 2016, and the follow-up meeting of March 31, 2016, that address the Human Health Risk Assessment for the OBG soils was submitted to VDEQ in October 2015. The facilities response was received on June 27, 2016.
   3. The review of the OBG Permit Renewal application is continuing.

3. Page 7/1025 of the document states, "The ejecta zone is conservatively defined as 20 feet in all directions based on previous studies." Please supply a copy of these studies for the DEQ's review.

4. Table 1 on page 16/1025 depicts soil sample locations versus sample analytical methods. Some of the hazardous constituents of concern (HCOCs) in soils samples (VOCs, SVOCs, RCRA metals) from non-bun pad locations were not run, while the table indicates that they should have been.

5. A notation should be made in the 2015 SMP and the hazardous waste permit that HCOCs: Diphenylamine (CAS # 122-39-4, noncarcinogen, RSL = 2,100 mg/kg – THQ=0.1 – Industrial Soil, Nov. 2015) and N-nitrosodiphenylamine (CAS # 86-30-6, carcinogen, RSL = 470 mg/kg – Industrial Soil, Nov. 2015) are indistinguishable when trying to analyze for them because N-nitrosodiphenylamine may transform into Diphenylamine (see page 190 of 1025). Fortunately, the observed concentrations in the soils are much lower than either of the respective Action Levels.

6. In Table 2A, on page 19/1025, the lead concentration is listed as 620 mg/kg and the date as 8/13/2015. The correct date should be (for this case) 9/25/2015. This was a verification resample. The original sample result was 900 mg/kg – sample taken 8/13/15. The action level is 800 mg/kg (June 2014).

7. In Table 2A, on page 20/1025, TPH is run on soil samples from Pads 1, 4, and 7. What is the logic/requirement for sampling at these particular locations?

8. The DEQ requests that actual achieved method detection limits (MDLs) be added next to each entry in the boxes of Tables 2A and 2B. This will facilitate the reviewer's quicker assessment of data in these Tables. Currently, one must go deeply into the document to find the achieved MDLs. It is noted that most MDLs for HCOCs in soils are fairly constant, but some do vary as illustrated on pages 654/1025, 656/1025, 658/1025 and other pages in the 2015 SMR.

9. Please add the same information requested in item 8 to **Table 3 – Summary of Method 8290A Dioxin/Furan Results**. It is noted that the detection limits starting on page 570/1025 of the 2015 SMR are called Estimated Detection Limits (EDLs) (defined on page 566/1025) and differ from MDLs.

10. Starting on page 51 of the 2015, SMR, please describe in detail, how are the locations of the Pad sampling sites picked with regard to the coordinates: x, y, and z? Is a random number generator utilized?

11. HCOCs 3-methyl phenol and 4-methyl phenol are indistinguishable when analyzed in soils (see page 190 of 1025). A notation should be made in the 2015 SMP and the hazardous waste permit of this fact. Fortunately, the observed concentrations in the OBG soils are much lower than either of the respective Action Levels.

12. It is noted on page 370/1025 that the laboratory result should be less than the MDL to be considered nondetected.

13. It is noted on page 673/1025 that U mg/kg=lab QL and QL(0.25) and the RL (0.65) are different. The analyte in question is tetryl. Please explain this observation.

14. It is noted on page 708/1025 that the following statement is made:"The sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the Virginia Department of Environmental Quality (VDEQ) in correspondence dated September 27, 2011. Additionally, the September 27, 2011 Class 3 Permit Modification reduced the list of Constituents of Potential Concern (COPCs) for the Unit and added hexavalent chromium and perchlorate."

    The DEQ can find no evidence that the list of HCOCs was reduced as a result of the September 27, 2011, Class 3 Permit Modification. Attached is the list of HCOCs at permit issuance in 2005, the Class 1 modification and HCOC Action Level update of 2008, and the list after the 2011 Class 3 modification.

15. Attached are Sonal Iyer's comments addressing the Quantitative Human Health Risk Assessment for the OBG soils submitted to VDEQ in October 2015 that is physically contained within the 2015 Soil Monitoring Report. There are linkages between the two documents and the previous comments (above) address everything through Sonal's comment 2i and they also include comment 3. Sonal's comments 2ii, 4 and 5 are in addition to comments 1-14 above.

16. An additional comment is offered regarding the Quantitative Human Health Risk Assessment for the OBG soils submitted to VDEQ in October 2015. A spot check of the data (Nitroglycerin in particular) indicates that in addition to the soil samples from Pads 1-8, sample results from SB-1, SB-2, NB-1, NB-2, Pond 1 and Berm 1 were included. The question is: is this acceptable? The DEQ's April 29, 2015, guidance letter addressing this subject to the facility states under item 6, "Treat the entire OBG as a single unit."

Table 1: Page 1 of 2
Identification of Constituents of Potential Concern
Open Burning Ground Soil Monitoring Program
Radford Army Ammunition Plant

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang	On GW List	To be Sampled?	Method SW-846	Proposed RL mg/kg	Action Level mg/kg	Source of A.L.
1,2-Dichloroethane	107-06-2	PIC		Yes		***Yes***	8260B	5.00E-03	3.10E+01	R3 RBC Ind
1,3,5-Trinitrobenzene	99-35-4	PIC		Yes		***Yes***	8330	2.50E-01	3.10E+04	R3 RBC Ind
2,4,6 - Trinotrotoluene	118-96-7	ENER				***Yes***	8330	2.50E-01	9.50E+01	R3 RBC Ind
2-amino-4,6-dinitrotoluene	35572-78-2	ENER				***Yes***	8330	2.50E-01	2.00E+03	R3 RBC Ind
4-amino-2,6-dinitrotoluene	19406-51-0	ENER				***Yes***	8330	2.50E-01	2.00E+03	R3 RBC Ind
2,4-Dichlorophenol	120-83-2	PIC		Yes	*	***Yes***	8270C	3.30E-01	3.10E+03	R3 RBC Ind
1,3 Dinitrobenzene	99-65-0	ENER				***Yes***	8330	2.50E-01	1.00E+02	R3 RBC Ind
2,4 Dinitrotoluene	121-14-2	Both	Yes		Yes	***Yes***	8330	2.50E-01	2.00E+03	R3 RBC Ind
2,6-Dinitrotoluene	606-20-2	PIC		Yes	Yes	***Yes***	8330	2.50E-01	1.00E+03	R3 RBC Ind
2-Chlorophenol	95-57-8	PIC		Yes	*	***Yes***	8270C	3.30E-01	5.10E+03	R3 RBC Ind
3 -Methylphenol	108-39-4	PIC		Yes		***Yes***	8270C	3.30E-01	5.10E+04	R3 RBC Ind
4-Methylphenol	106-44-5	PIC		Yes		***Yes***	8270C	3.30E-01	5.10E+03	R3 RBC Ind
2- Nitrotoluene (ortho)	88-72-2	ENER				***Yes***	8330	2.50E-01	1.20E+01	R3 RBC Ind
3- Nitrotoluene (meta)	99-08-1	ENER				***Yes***	8330	2.50E-01	2.00E+04	R3 RBC Ind
4- Nitrotoluene (para)	99-99-0	ENER				***Yes***	8330	2.50E-01	1.70E+02	R3 RBC Ind
3,3-Dimethylbenzidine	119-93-7	PIC		Yes			NCA			
4-Nitrophenol	100-02-7	PIC		Yes		***Yes***	8270C	1.60E+00	7.00E+00	ECO Risk
Acetophenone	98-86-2	PIC		Yes		***Yes***	8270C	3.30E-01	1.00E+05	R3 RBC Ind
Arsenic	7440-38-2	Propellant ingredient	Yes		Yes	***Yes***	6010B	1.00E+00	1.58E+01	FWB
Barium	7440-39-3	Propellant ingredient	Yes	Yes	Yes	***Yes***	6010B	2.00E+01	7.20E+04	R3 RBC Ind
Benz{a}anthracene	56-55-3	PIC		Yes		***Yes***	8270C	3.30E-01	3.90E+00	R3 RBC Ind
Benzene	71-43-2	Propellant ingredient	Yes		Yes	***Yes***	8260B	5.00E-03	5.20E+01	R3 RBC Ind
Benzo(a)pyrene	50-32-8	PIC		Yes		***Yes***	8270C	3.30E-01	3.90E-01	R3 RBC Ind
Benzo(b)fluoranthene	205-99-2	PIC		Yes		***Yes***	8270C	3.30E-01	3.90E+00	R3 RBC Ind
Benzo(k)fluoranthene	207-08-9	PIC		Yes		***Yes***	8270C	3.30E-01	3.90E+01	R3 RBC Ind
Benzyl chloride	100-44-7	PIC		Yes			NCA			
bis (2-Ethylhexyl)phthalate	117-81-7	PIC		Yes		***Yes***	8270C	3.30E-01	2.00E+02	R3 RBC Ind
Butylbenzyl phthalate	85-68-7	PIC		Yes		***Yes***	8270C	3.30E-01	2.00E+05	R3 RBC Ind
Cadmium	7440-43-9	PIC		Yes		***Yes***	6010B	5.00E-01	5.10E+02	R3 RBC Ind
Carbon Tetrachloride	56-23-5	PIC		Yes	Yes	***Yes***	6010B	5.00E-03	2.20E+01	R3 RBC Ind
Chlorobenzene	108-90-7	Both	Yes	Yes	Yes	***Yes***	8260B	5.00E-03	2.00E+04	R3 RBC Ind
Chloroform	67-66-3	PIC		Yes		***Yes***	8260B	5.00E-03	1.00E+04	R3 RBC Ind
Chromium	7740-47-3	PIC		Yes	Yes	***Yes***	6010B	1.00E+00	3.10E+03	R3 RBC Ind
Dibenz(a,h)anthracene	53-70-3	PIC		Yes		***Yes***	8270C	3.30E-01	3.90E-01	R3 RBC Ind
Dibutyl phthalate	84-74-2	Propellant ingredient	Yes		Yes	***Yes***	8270C	3.30E-01	1.00E+05	R3 RBC Ind
Diethylphthalate	84-66-2	Propellant ingredient	Yes			***Yes***	8270C	3.30E-01	8.20E+05	R3 RBC Ind
Dimethyl phthalate	131-11-3	PIC		Yes		***Yes***	8270C	3.30E-01	1.00E+07	R3 RBC Ind
Di-n-butyl phthalate	131-11-3	PIC		Yes	Yes	***Yes***	8270C	3.30E-01	1.00E+05	R3 RBC Ind
Diphenylamine	122-39-4	Both	Yes	Yes	Yes	***Yes***	8270C	1.60E+00	2.60E+04	R3 RBC Ind
Ethanol	67-56-1	Propellant ingredient	Yes				NCA			
Fluoranthene	206-44-0	PIC		Yes		***Yes***	8270C	3.30E-01	4.10E+04	R3 RBC ind
Hexachloroethane	67-72-1	Propellant ingredient	Yes		Yes	***Yes***	8260B	5.00E-03	2.00E+02	R3 RBC ind
HMX	2691-41-0	ENER				***Yes***	8330	2.20E+00	5.10E+04	R3 RBC ind
Indeno(1,2,3-cd)pyrene	193-39-5	PIC		Yes		***Yes***	8270C	3.30E-01	3.90E+00	R3 RBC ind
Lead	7439-92-1	PIC		Yes	Yes	***Yes***	6010B	3.00E-01	8.00E+02	ALM
Mercury	7439-97-6	Propellant ingredient	Yes		Yes	***Yes***	6010B	1.00E-01	1.30E-01	FWB
Methyl Bromide (bromomethane)	74-83-9	PIC		Yes		***Yes***	8260B	5.00E-03	1.50E+01	R3 RBC Ind
Methyl Chloride (Chloromethane)	74-87-3	Both	Yes	Yes	Yes	***Yes***	8260B	5.00E-03	6.00E+00	R9 PRG Ind
Methylene chloride	75-09-2	Both	Yes	Yes	Yes	***Yes***	8260B	5.00E-03	3.80E+02	R3 RBC ind
Naphthalene	91-20-3	PIC		Yes		***Yes***	8270C	3.30E-01	2.00E+04	R3 RBC ind
Nitrobenzene	98-95-3	ENER				***Yes***	8330	2.50E-01	5.10E+02	R3 RBC ind
Nitrogen Dioxide (peroxide)	10102-44-0	PIC		Yes			NCA			

Table 1 (Continued): Page 2 of 2

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang	On GW List	To be Sampled?	Method SW-846	Proposed RL mg/kg	Action Level mg/kg	Source of A.L.
Phenol	108-95-2	PIC		Yes	*	***Yes***	8270C	3.30E-01	3.10E+05	R3 RBC ind
RDX	121-82-4	ENER				***Yes***	8330	1.00E+00	2.60E+01	R3 RBC ind
Silver	7440-22-4	Propellant ingredient	Yes		Yes	***Yes***	6010B	1.00E+00	5.10E+03	R3 RBC ind
Selenium	7782-49-2	Background				***Yes***	6010B	5.00E-01	5.10E+03	R3 RBC ind
Total Petroleum Hydrocarbons - DRO		Site Accelerant				***Yes***	8015B	1.00E+01	1.10E+04	DEQ gd
Tetrachloroethylene	127-18-4	PIC		Yes		***Yes***	8260B	5.00E-03	5.30E+00	R3 RBC ind
Tetryl	479-45-8	ENER				***Yes***	8330	6.50E-01	1.00E+04	R3 RBC ind
Toluene	108-88-3	Both	Yes	Yes	Yes	***Yes***	8260B	5.00E-03	2.00E+05	R3 RBC ind
Trichloroethylene	79-01-6	PIC		Yes		***Yes***	8260B	5.00E-03	7.20E+00	R3 RBC ind
Vinyl Chloride	75-01-4	PIC		Yes		***Yes***	8260B	5.00E-03	4.00E+00	R3 RBC ind
Vinylidene Chloride (1,1, Dichloroethene)	75-35-4	PIC		Yes		***Yes***	8260B	5.00E-03	5.10E+04	R3 RBC ind
Polychlorinated Dibenzo(p)dioxins and furans										
1,2,3,4,5,7,8,9-Octachlorodibenzo(p)dioxin (OCDD)	3268-87-9	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin (HpCDD)	35822-46-9	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	39227-28-6	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	57653-85-7	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin (HxCDD)	19408-74-3	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,7,8-Pentachlorodibenzo(p)dioxin (PeCDD)	40321-76-4	PIC		Yes		***Yes***	8920	See Note 4		
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8920	See Note 4		
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	PIC		Yes		***Yes***	8920	See Note 4		
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8920	See Note 4		
2,3,7,8-Tetrachlorodibenzo(p)dioxin (TCDD)	1746-01-6	PIC		Yes		***Yes***	8920	See Note 4		
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	PIC		Yes		***Yes***	8920	See Note 4		
*** Constituents to be sampled first 2 semi-annual events (see Section 3.3 of this plan)**										
antimony	7440-36-0	PIC			Yes	**** Yes***	6010B	1.00E+01	4.10E+02	R3 RBC ind
benzoic acid	65-85-0	Propellant ingredient	Yes			**** Yes***	8270C	3.30E+00	4.10E+06	R3 RBC ind
dibenzofuran	132-64-9	PIC		Yes		**** Yes***	8270C	3.30E-01	2.00E+03	R3 RBC ind
di-n-octyl pthalate	117-84-0	PIC				**** Yes***	8270C	3.30E-01	4.10E+04	R3 RBC ind
nickel	7440-02-0	PIC		Yes		**** Yes***	6010B	3.30E+02	2.00E+04	R3 RBC ind
nitroglycerin	55-63-0	ENER	Yes		Yes	**** Yes***	8330	2.50E+00	2.00E+02	R3 RBC ind
pyrene	129-00-0	PIC		Yes		**** Yes***	8270C	3.30E-01	3.10E+04	R3 RBC ind
zinc	7440-06-66	PIC		Yes		**** Yes***	6010B	2.50E+03	3.10E+05	R3 RBC ind

NOTES:

1. Type of Constituent - "Propellant Ingredient" = Ingredient in propellant compound
"PIC" Product of Incomplete Combustion": means that it was reported in the Bangbox Database (see Appendix A-2)
"Both" Both PIC and Propellant Ingredient
"ENER" - Energetic on SW-846 Method 8330 parameter List
2. In Waste- "Yes" - means it was reported in Radfords' waste characterization
3. **BOLD** Constituent Constituent not In 40 CFR 261 Appendix VIII List of Hazardous Substances
4. Dioxins Reporting Limit and Action Level will be calculated for each sample and detection, respectively. See Table 2 for example reporting format.
5. NCA Constituent is not analyzed by commercial laboratories
6. Source of Action Levels - **"R3 RBC Ind"** - Region III RBC for Industrial Sites - Dated 10/8/2004
"R9 PRG Ind" - Region IX Preliminary Remediation Goals for Industrial Soils - Dated October 2004
"DEQ gd" - Table 5-5 Soil Saturation Values, Page 5-27 of VDEQ Storage Tank Program Technical Manual, Rev 2, May 3, 1999
"FWB" - Facility Wide Background Study
"ALM" is the Adult Lead Methodology (ALM). NHANES III (National Health and Nutrition Evaluation Survey) is a lead study. ALM identifies 800 mg/kg as a screening value and states that it is based on an analysis of the NHANES III study and that it is "a cleanup goal protective of all subpopulations."
"ECO RISK" - June 23, 2000 EPA memorandum Entitled *Amended Guidance on Ecological Risk Assessment at Military Bases: Process Considerations, Timing of Activities and Inclusion of Stakeholders.*
7. RL and AL "RL" is the laboratory reporting limit and is analogous to the Limit of Quantitation (LOQ). "AL" is the Action Level based on published risk based values.

Table 1: Page 1 of 2
Identification of Constituents of Potential Concern
Open Burning Ground Soil Monitoring Program
Radford Army Ammunition Plant
Modified: September 27, 2011

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang Box Database?	On GW List	To be Sampled?	SW-846 Method	Proposed RL mg/kg	Original Permit Action Level mg/kg (09/28/05)	Action Level mg/kg (As Revised rev 12/03/08)	Updated Action Level mg/kg	Source of Updated Action Level
1,2-Dichloroethane	107-06-2	PIC		Yes		*Yes*	8260B	0.005	31	2.2	2.2	R3 RSL Ind
1,3,5-Trinitrobenzene	99-35-4	PIC		Yes		*Yes*	8330A	0.25	31000	27000	27000	R3 RSL Ind
2,4,6-Trinitrotoluene	118-96-7	ENER				*Yes*	8330A	0.25	95	79	79	R3 RSL Ind
2-amino-4,6-dinitrotoluene	35572-78-2	ENER				*Yes*	8330A	0.25	2000	2000	2000	R3 RSL Ind
4-amino-2,6-dinitrotoluene	19406-51-0	ENER				*Yes*	8330A	0.25	2000	1900	1900	R3 RSL Ind
2,4-Dichlorophenol	120-83-2	PIC		Yes	*	*Yes*	8270C	0.33	3100	1800	1800	R3 RSL Ind
1,3-Dinitrobenzene	99-65-0	ENER				*Yes*	8330A	0.25	100	62	62	R3 RSL Ind
2,4-Dinitrotoluene	121-14-2	Both	Yes		Yes	*Yes*	8330A	0.25	2000	1200	5.5	R3 RSL Ind
2,6-Dinitrotoluene	606-20-2	PIC		Yes	Yes	*Yes*	8330A	0.25	1000	620	620	R3 RSL Ind
2-Chlorophenol	95-57-8	PIC		Yes	*	*Yes*	8270C	0.33	5100	5100	5100	R3 RSL Ind
3-Methylphenol	108-39-4	PIC		Yes		*Yes*	8270C	0.33	51000	31000	31000	R3 RSL Ind
4-Methylphenol	106-44-5	PIC		Yes		*Yes*	8270C	0.33	5100	3100	3100	R3 RSL Ind
2-Nitrotoluene (ortho)	88-72-2	ENER				*Yes*	8330A	0.25	12	13	13	R3 RSL Ind
3-Nitrotoluene (meta)	99-08-1	ENER				*Yes*	8330A	0.25	20000	12000	62	R3 RSL Ind
4-Nitrotoluene (para)	99-99-0	ENER				*Yes*	8330A	0.25	170	110	110	R3 RSL Ind
3,3-Dimethylbenzidine	119-93-7	PIC		Yes		*Yes*	8270C	1.6	--	0.16	0.16	R3 RSL Ind
4-Nitrophenol	100-02-7	PIC		Yes		*Yes*	8270C	1.6	7	7	7	ECO Risk
Acetophenone	98-86-2	PIC		Yes		*Yes*	8270C	0.33	100000	100000	100000	R3 RSL Ind
Arsenic	7440-38-2	Propellant ingredient	Yes		Yes	*Yes*	6010B	1	15.8	15.8	15.8	FWB
Barium	7440-39-3	Propellant ingredient	Yes	Yes	Yes	*Yes*	6010B	20	72000	190000	190000	R3 RSL Ind
Benz(a)anthracene	56-55-3	PIC		Yes		*Yes*	8270C	0.33	3.9	2.1	2.1	R3 RSL Ind
Benzene	71-43-2	Propellant ingredient	Yes		Yes	*Yes*	8260B	0.005	52	5.6	5.4	R3 RSL Ind
Benzo(a)pyrene	50-32-8	PIC		Yes		*Yes*	8270C	0.02	0.39	0.21	0.21	R3 RSL Ind
Benzo(b)fluoranthene	205-99-2	PIC		Yes		*Yes*	8270C	0.33	3.9	2.1	2.1	R3 RSL Ind
Benzo(k)fluoranthene	207-08-9	PIC		Yes		*Yes*	8270C	0.33	39	21	2.1	R3 RSL Ind
Benzyl chloride	100-44-7	PIC		Yes		*Yes*	8260B	0.005	--	17	4.9	R3 RSL Ind
bis(2-Ethylhexyl)phthalate	117-81-7	PIC		Yes		*Yes*	8270C	0.33	200	120	120	R3 RSL Ind
Butylbenzylphthalate	85-68-7	PIC		Yes		*Yes*	8270C	0.33	200000	910	910	R3 RSL Ind
Cadmium	7440-43-9	PIC		Yes		*Yes*	6010B	0.5	510	810	800	R3 RSL Ind
Carbon tetrachloride	56-23-5	PIC		Yes	Yes	*Yes*	8260B	0.005	22	1.3	3	R3 RSL Ind
Chlorobenzene	108-90-7	Both	Yes	Yes	Yes	*Yes*	8260B	0.005	20000	1500	1400	R3 RSL Ind
Chloroform	67-66-3	PIC		Yes		*Yes*	8260B	0.005	10000	1.5	1.5	R3 RSL Ind
Chromium, Hexavalent	18540-29-9	PIC		Yes		*Yes*	7196A	1	NA	NA	5.6	R3 RSL Ind
Chromium, Total	7740-47-3	PIC		Yes	Yes	*Yes*	6010B	1	3100	1400	NA	NA
Dibenz(a,h)anthracene	53-70-3	PIC		Yes		*Yes*	8270C	0.02	0.39	0.21	0.21	R3 RSL Ind
Diethylphthalate	84-66-2	Propellant ingredient	Yes			*Yes*	8270C	0.33	820000	490000	490000	R3 RSL Ind
Dimethyl phthalate	131-11-3	PIC		Yes		*Yes*	8270C	0.33	10000000	10000000	10000000	R3 RSL Ind*
Di-n-butyl phthalate	84-74-2	PIC		Yes	Yes	*Yes*	8270C	0.33	100000	62000	62000	R3 RSL Ind
Diphenylamine	122-39-4	Both	Yes	Yes	Yes	*Yes*	8270C	1.6	26000	15000	15000	R3 RSL Ind
Ethanol	64-17-5	Propellant ingredient	Yes				NCA					
Fluoranthene	206-44-0	PIC		Yes		*Yes*	8270C	0.33	41000	22000	22000	R3 RSL Ind
Hexachloroethane	67-72-1	Propellant ingredient	Yes		Yes	*Yes*	8270C	0.33	200	120	120	R3 RSL Ind
HMX	2691-41-0	ENER				*Yes*	8330A	2.2	51000	49000	49000	R3 RSL Ind
Indeno(1,2,3-cd)pyrene	193-39-5	PIC		Yes		*Yes*	8270C	0.33	3.9	2.1	2.1	R3 RSL Ind
Lead	7439-92-1	PIC		Yes	Yes	*Yes*	6010B	0.3	800	800	800	ALM
Mercury	7439-97-6	Propellant ingredient	Yes		Yes	*Yes*	7471A	0.1	0.13	28	34	R3 RSL Ind
Methyl bromide (Bromomethane)	74-83-9	PIC		Yes		*Yes*	8260B	0.005	15	35	32	R3 RSL Ind
Methyl chloride (Chloromethane)	74-87-3	Both	Yes	Yes	Yes	*Yes*	8260B	0.005	6	8.4	500	R3 RSL Ind
Methylene chloride	75-09-2	Both	Yes	Yes	Yes	*Yes*	8260B	0.005	380	54	53	R3 RSL Ind
Naphthalene	91-20-3	PIC		Yes		*Yes*	8270C	0.33	20000	20	18	R3 RSL Ind
Nitrobenzene	98-95-3	ENER				*Yes*	8330A	0.25	510	280	24	R3 RSL Ind
Nitrogen dioxide (peroxide)	10102-44-0	PIC		Yes			NCA					
Nitroglycerin	55-63-0	ENER	Yes		Yes	**** Yes***	8332	2.5	200	62	62	R3 RSL Ind
Perchlorate	14797-73-0	Propellant ingredient	Yes		Yes	***Yes***	314				720	R3 RSL Ind
Phenol	108-95-2	PIC		Yes	*	*Yes*	8270C	0.33	310000	180000	180000	R3 RSL Ind
RDX	121-82-4	ENER				*Yes*	8330A	1	26	24	24	R3 RSL Ind
Silver	7440-22-4	Propellant ingredient	Yes		Yes	*Yes*	6010B	1	5100	5100	5100	R3 RSL Ind

Revised 12-3-08
Revised 9-30-10

Selenium	7782-49-2	Background				*Yes*	6010B	0.5	5100	5100	5100	R3 RSL Ind

Table 1 (Continued): Page 2 of 2

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang Box Database?	On GW List	To be Sampled?	Method SW-846	Proposed RL mg/kg	Original Permit Action Level mg/kg (09/28/05)	Action Level mg/kg (As Revised rev 12/03/08)	Updated Action Level mg/kg	Source of Updated Action Level
Total Petroleum Hydrocarbons - DRO		Site Accelerant				***Yes***	8015B	10	11000	11000	11000	DEQ gd
Tetrachloroethylene	127-18-4	PIC		Yes		***Yes***	8260B	0.005	5.3	2.7	2.6	R3 RSL Ind
Tetryl	479-45-8	ENER				***Yes***	8330A	0.65	10000	2500	2500	R3 RSL Ind
Toluene	108-88-3	Both	Yes	Yes	Yes	***Yes***	8260B	0.005	200000	46000	45000	R3 RSL Ind
Trichloroethylene	79-01-6	PIC		Yes		***Yes***	8260B	0.005	7.2	14	14	R3 RSL Ind
Vinyl chloride	75-01-4	PIC		Yes		***Yes***	8260B	0.005	4	1.7	1.7	R3 RSL Ind
Vinylidene chloride (1,1-Dichloroethene)	75-35-4	PIC		Yes		***Yes***	8260B	0.005	51000	1100	1100	R3 RSL Ind
Polychlorinated Dibenzo(p)dioxins and furans												
1,2,3,4,5,7,8,9-Octachlorodibenzo(p)dioxin (OCDD)	3268-87-9	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin (HpCDD)	35822-46-9	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	39227-28-6	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	57653-85-7	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin (HxCDD)	19408-74-3	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,7,8-Pentachlorodibenzo(p)dioxin (PeCDD)	40321-76-4	PIC		Yes		***Yes***	8290A	See Note 5				
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8290A	See Note 5				
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	PIC		Yes		***Yes***	8290A	See Note 5				
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8290A	See Note 5				
2,3,7,8-Tetrachlorodibenzo(p)dioxin (TCDD)	1746-01-6	PIC		Yes		***Yes***	8290A	See Note 5				
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	PIC		Yes		***Yes***	8290A	See Note 5				
2,3,7,8-TCDD Toxicity Equivalence Quotient(TEQ)									19 ng/kg	19 ng/kg	18 ng/kg	R3 RBC Ind

NOTES:

1. Updated Action Level — AL changed as part of update of Region III Regional Screening Levels (RSL) (formerly known as RBCs) for Industrial Sites .
2. Type of Constituent — "Propellant Ingredient" = Ingredient in propellant compound.
   "PIC" Product of Incomplete Combustion": means that it was reported in the Bangbox Database (see Appendix A-2).
   "Both" Both PIC and Propellant Ingredient.
   "ENER" - Energetic on SW-846 Method 8330 parameter List.
3. In Waste — "Yes" - means it was reported in Radford AAP's waste characterization.
4. **BOLD** Constituent — Constituent not in 40 CFR 261 Appendix VIII List of Hazardous Constituents.
5. Dioxins — Reporting Limit and Action Level will be calculated for each sample and detection, respectively. See Table 2 for example reporting format.
6. NCA — Constituent is not analyzed by commercial laboratories.
7. Source of Updated Action Levels — **"R3 RSL Ind"** United States Environmental Protection Agency Regions 3, 6, and 9. (Accessed October 4, 2010). Regional Screening Levels for Chemical Contaminants at Superfund Sites. Current RSL table dated May 17, 2010. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm
   "R3 RSL Ind*" - These constituents were removed from the September 12, 2008 RBC table. The previous AL (Region III RBC for Industrial Sites from October 2004) is listed.
   "DEQ gd" - Table 5-7 Soil Saturation Values, Page 5-40 of VDEQ Storage Tank Program Technical Manual, Rev 3, October 4, 2001.
   "FWB" - Facility Wide Background Study.
   "ALM" is the Adult Lead Methodology (ALM). NHANES III (National Health and Nutrition Evaluation Survey) is a lead study. ALM identifies 800 mg/kg as a screening value and states that it is based on an analysis of the NHANES III study and that it is "a cleanup goal protective of all subpopulations."
   "ECO RISK" - June 23, 2000 EPA memorandum Entitled *Amended Guidance on Ecological Risk Assessment at Military Bases: Process Considerations, Timing of Activities and Inclusion of Stakeholders.*
   "NA" - Not applicable.
8. RL and AL — "RL" is the laboratory reporting limit and is analogous to the Limit of Quantitation (LOQ). "AL" is the Action Level based on published risk based values.
9. Action Level adjusted — for 3,3-Dimethylbenzidine the Action Level of 0.16 mg/kg is below the Proposed Reporting Level of 1.6 mg/kg. The Proposed Reporting Level in this case is set to the level at which the laboratory feels most confident detecting this chemical. Therefore any result above the Action Level and below the Proposed Reporting Limit will be discussed with the VA DEQ to determine if additional evaluation is necessary.
10. Non-pad Sample Locations** (SB-1, SB-2, NB-1, NB-2, Berm-1, and Pond-1) — **Soil samples collected from non burn pad locations only require analysis for the following constituents: Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Bromomethane, Trichloroethene, Bis(2-Ethylexyl) phthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, N-Nitrosodiphenylamine, Dioxins/furans, 2,4,6-Trinitrotoluene, 2-Amino-4, 6-dinitrotoluene, 4-Amino-2, 6-dinitrotoluene, HMX, Nitroglycerin and 2,4-Dinitrotoluene.**

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF PERMITTING AND COMPLIANCE

Via Electronic Mail

MEMO

TO: Ashby Scott

Thru: Chris Evans/Brett Fisher

FROM: Sonal Iyer

DATE: May 16, 2016

SUBJECT: Technical Review: 2015 Annual Soil monitoring Report-Open Burning Ground Soil-Radford Army Ammunition Plant, Radford VA
Dated: February, 2016
EPA ID: VAD1210020730

This memorandum provides the comments pertaining to risk assessment elements provided in the above-mentioned submittal. Selection of COPC, SMP, and other permit related conditions and requirements re not included in the current review.

This memorandum relates only to technical aspects of risk assessment and does not constitute final decisions for the facility submittal or other RCRA-related activities occurring/may occur at this facility. The permit writer will be making the decision about applicability of all or some of these comments to the overall project requirements.

Comments:

1. Section 5.0. Soil Analytical Data Evaluation, page 6:
   i. The text on page 6 states that ALs dated June 2014 are used for comparison. The rationale behind this decision is unclear. Between June 2014 to February 2016, EPA has published 3 updates to toxicity values, screening levels and chemicals parameters. VDEQ has clarified to the facility over past several years that the most recent toxicity, exposure, and screening level values available at the time of data analysis should be included in risk assessment. AL used in the report do not meet this criterion. Table 4 shows that

nitroglycerin exceeds 1/10th of action level. But no quantitative risk assessment is provided to demonstrate if all the detected constituents exceed current acceptable risk/hazard based criteria or not. Text on page 6-7 does not discuss excavation for nitroglycerin hot-spot which is mentioned in section6 on page 8. This has led to some confusion: Are data shown in tables 2A, 2B, and 3 for nitroglycerin represent post-excavation or pre-excavation scenario? If data represent pre-excavation scenario and if excavation was performed in the same area as the sampling locations, then post-sampling data needs to be used for comparison to AL. Please clearly identify timeline of sampling event in relation to excavation event, sampling location, excavation location, post-excavation sampling locations and post-excavation sampling data.

ii. TPH-DRO are not included in risk assessment (RA-screening as well as quantitative). Individual components of the fuels are analyzed and included in RA.

2. Tables 2A and 2B:
   i. Both Tables 2A and 2B provide date of analysis under the analyte name – all of which corresponds to August 13 sampling event. Please clarify which data represents the September 25, 2015 sampling event.
   ii. As per discussions between VDEQ and the facility from August through October 2015 and reflected in previous October 2015 report, if the RL for 3,3`Dimethylbenzidine is ten-fold higher than the action level, the constituent needs to be included in risk assessment. Current soil monitoring report does not discuss this QA/QC related item.

3. Table 3: Pease provide DL (or RL if DL I not available) for D/F congeners.

4. Table 4: This table provides reduced 'Action Level (AL)' which is mentioned in the permit, by 1/10th but the screening level adjustment needs to reflect lower of 1E-6 and HQ0.1. EPA RSL website provides RSL table with this configuration. Thus, the facility is advised to use the most recent update of RSL table to obtain 'AL' –which is lower of 1E-6/HQ1 OR lower of 1E-6/HQ0.1 for 10 or more noncarcinogens. Please revise and submit Table 4.

5. Section 6.0. Conclusions, page 8: Please see comment 1.i above. Additionally, the QRA mentioned in this section was conducted using

2014 sampling data and VDEQ had provided comments on that report (dated October 2015) separately. The previous QRA has no connection with the 2015 dataset or screening level risk assessment of fresh set of data. Please remove reference to old risk assessment from this section. To avoid confusion, the appendix that includes October 2015 risk assessment report can also be removed from the current report.

If there are any questions or comments, I can be contacted at 698-4259.

Table 1: Page 1 of 2
Identification of Constituents of Potential Concern
Open Burning Ground Soil Monitoring Program
Radford Army Ammunition Plant

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang Box Database?	On GW List	To be Sampled?	SW-846 Method	Proposed RL mg/kg	Action Level mg/kg	Updated Action Level mg/kg	Source of Updated A.L.
1,2-Dichloroethane	107-06-2	PIC		Yes		***Yes***	8260B	0.005	31	2.2	R3 RBC Ind
1,3,5-Trinitrobenzene	99-35-4	PIC		Yes		***Yes***	8330	0.25	31000	27000	R3 RBC Ind
2,4,6-Trinitrotoluene	118-96-7	ENER				***Yes***	8330	0.25	95	79	R3 RBC Ind
2-amino-4,6-dinitrotoluene	35572-78-2	ENER				***Yes***	8330	0.25	2000	2000	R3 RBC Ind
4-amino-2,6-dinitrotoluene	19406-51-0	ENER				***Yes***	8330	0.25	2000	1900	R3 RBC Ind
2,4-Dichlorophenol	120-83-2	PIC		Yes	*	***Yes***	8270C	0.33	3100	1800	R3 RBC Ind
1,3-Dinitrobenzene	99-65-0	ENER				***Yes***	8330	0.25	100	62	R3 RBC Ind
2,4-Dinitrotoluene	121-14-2	Both	Yes		Yes	***Yes***	8330	0.25	2000	1200	R3 RBC Ind
2,6-Dinitrotoluene	606-20-2	PIC		Yes	Yes	***Yes***	8330	0.25	1000	620	R3 RBC Ind
2-Chlorophenol	95-57-8	PIC		Yes	*	***Yes***	8270C	0.33	5100	5100	R3 RBC Ind
3-Methylphenol	108-39-4	PIC		Yes		***Yes***	8270C	0.33	51000	31000	R3 RBC Ind
4-Methylphenol	106-44-5	PIC		Yes		***Yes***	8270C	0.33	5100	3100	R3 RBC Ind
2-Nitrotoluene (ortho)	88-72-2	ENER				***Yes***	8330	0.25	12	13	R3 RBC Ind
3-Nitrotoluene (meta)	99-08-1	ENER				***Yes***	8330	0.25	20000	12000	R3 RBC Ind
4-Nitrotoluene (para)	99-99-0	ENER				***Yes***	8330	0.25	170	110	R3 RBC Ind
3,3-Dimethylbenzidine	119-93-7	PIC		Yes		***Yes***	8270C	1.6	--	0.16	R3 RBC Ind
4-Nitrophenol	100-02-7	PIC		Yes		***Yes***	8270C	1.6	7	7	ECO Risk
Acetophenone	98-86-2	PIC		Yes		***Yes***	8270C	0.33	100000	100000	R3 RBC Ind
Arsenic	7440-38-2	Propellant ingredient	Yes		Yes	***Yes***	6010B	1	15.8	15.8	FWB
Barium	7440-39-3	Propellant ingredient	Yes	Yes	Yes	***Yes***	6010B	20	72000	190000	R3 RBC Ind
Benz(a)anthracene	56-55-3	PIC		Yes		***Yes***	8270C	0.33	3.9	2.1	R3 RBC Ind
Benzene	71-43-2	Propellant ingredient	Yes		Yes	***Yes***	8260B	0.005	52	5.6	R3 RBC Ind
Benzo(a)pyrene	50-32-8	PIC		Yes		***Yes***	8270C	0.02	0.39	0.21	R3 RBC Ind
Benzo(b)fluoranthene	205-99-2	PIC		Yes		***Yes***	8270C	0.33	3.9	2.1	R3 RBC Ind
Benzo(k)fluoranthene	207-08-9	PIC		Yes		***Yes***	8270C	0.33	39	21	R3 RBC Ind
Benzyl chloride	100-44-7	PIC		Yes		***Yes***	8260B	0.005	--	17	R3 RBC Ind
bis(2-Ethylhexyl)phthalate	117-81-7	PIC		Yes		***Yes***	8270C	0.33	200	120	R3 RBC Ind
Butylbenzylphthalate	85-68-7	PIC		Yes		***Yes***	8270C	0.33	200000	910	R3 RBC Ind
Cadmium	7440-43-9	PIC		Yes		***Yes***	6010B	0.5	510	810	R3 RBC Ind
Carbon tetrachloride	56-23-5	PIC		Yes	Yes	***Yes***	8260B	0.005	22	1.3	R3 RBC Ind
Chlorobenzene	108-90-7	Both	Yes	Yes	Yes	***Yes***	8260B	0.005	20000	1500	R3 RBC Ind
Chloroform	67-66-3	PIC		Yes		***Yes***	8260B	0.005	10000	1.5	R3 RBC Ind
Chromium	7740-47-3	PIC		Yes	Yes	***Yes***	6010B	1	3100	1400	R3 RBC Ind
Dibenz(a,h)anthracene	53-70-3	PIC		Yes		***Yes***	8270C	0.02	0.39	0.21	R3 RBC Ind
Diethylphthalate	84-66-2	Propellant ingredient	Yes			***Yes***	8270C	0.33	820000	490000	R3 RBC Ind
Dimethyl phthalate	131-11-3	PIC		Yes		***Yes***	8270C	0.33	10000000	10000000	R3 RBC Ind*
Di-n-butyl phthalate	84-74-2	PIC		Yes	Yes	***Yes***	8270C	0.33	100000	62000	R3 RBC Ind
Diphenylamine	122-39-4	Both	Yes	Yes	Yes	***Yes***	8270C	1.6	26000	15000	R3 RBC Ind
Ethanol	64-17-5	Propellant ingredient	Yes				NCA				
Fluoranthene	206-44-0	PIC		Yes		***Yes***	8270C	0.33	41000	22000	R3 RBC Ind
Hexachloroethane	67-72-1	Propellant ingredient	Yes		Yes	***Yes***	8260B	0.005	200	120	R3 RBC Ind
HMX	2691-41-0	ENER				***Yes***	8330	2.2	51000	49000	R3 RBC Ind
Indeno(1,2,3-cd)pyrene	193-39-5	PIC		Yes		***Yes***	8270C	0.33	3.9	2.1	R3 RBC Ind
Lead	7439-92-1	PIC		Yes	Yes	***Yes***	6010B	0.3	800	800	ALM
Mercury	7439-97-6	Propellant ingredient	Yes		Yes	***Yes***	6010B	0.1	0.13	28	R3 RBC Ind
Methyl bromide (Bromomethane)	74-83-9	PIC		Yes		***Yes***	8260B	0.005	15	35	R3 RBC Ind
Methyl chloride (Chloromethane)	74-87-3	Both	Yes	Yes	Yes	***Yes***	8260B	0.005	6	8.4	R3 RBC Ind
Methylene chloride	75-09-2	Both	Yes	Yes	Yes	***Yes***	8260B	0.005	380	54	R3 RBC Ind
Naphthalene	91-20-3	PIC		Yes		***Yes***	8270C	0.33	20000	20	R3 RBC Ind
Nitrobenzene	98-95-3	ENER				***Yes***	8330	0.25	510	280	R3 RBC Ind
Nitrogen dioxide (peroxide)	10102-44-0	PIC		Yes			NCA				
Phenol	108-95-2	PIC		Yes	*	***Yes***	8270C	0.33	310000	180000	R3 RBC Ind
RDX	121-82-4	ENER				***Yes***	8330	1	26	24	R3 RBC Ind
Silver	7440-22-4	Propellant ingredient	Yes		Yes	***Yes***	6010B	1	5100	5100	R3 RBC Ind
Selenium	7782-49-2	Background				***Yes***	6010B	0.5	5100	5100	R3 RBC Ind

Constituent	CASRN	Type of Constituent	In Waste?	Reported in Bang Box Database?	On GW List	To be Sampled?	Method SW-846	Proposed RL mg/kg	Action Level mg/kg	Updated Action Level mg/kg	Source of A.L.
Total Petroleum Hydrocarbons - DRO		Site Accelerant				***Yes***	8015B	10	11000	11000	DEQ gd
Tetrachloroethylene	127-18-4	PIC		Yes		***Yes***	8260B	0.005	5.3	2.7	R3 RBC Ind
Tetryl	479-45-8	ENER				***Yes***	8330	0.65	10000	2500	R3 RBC Ind
Toluene	108-88-3	Both	Yes	Yes	Yes	***Yes***	8260B	0.005	200000	46000	R3 RBC Ind
Trichloroethylene	79-01-6	PIC		Yes		***Yes***	8260B	0.005	7.2	14	R3 RBC Ind
Vinyl chloride	75-01-4	PIC		Yes		***Yes***	8260B	0.005	4	1.7	R3 RBC Ind
Vinylidene chloride (1,1-Dichloroethene)	75-35-4	PIC		Yes		***Yes***	8260B	0.005	51000	1100	R3 RBC Ind
Polychlorinated Dibenzo(p)dioxins and furans											
1,2,3,4,5,7,8,9-Octachlorodibenzo(p)dioxin (OCDD)	3268-87-9	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin (HpCDD)	35822-46-9	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	39227-28-6	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin (HxCDD)	57653-85-7	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin (HxCDD)	19408-74-3	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,7,8-Pentachlorodibenzo(p)dioxin (PeCDD)	40321-76-4	PIC		Yes		***Yes***	8920	See Note 5			
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8920	See Note 5			
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	PIC		Yes		***Yes***	8920	See Note 5			
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	PIC		Yes		***Yes***	8920	See Note 5			
2,3,7,8-Tetrachlorodibenzo(p)dioxin (TCDD)	1746-01-6	PIC		Yes		***Yes***	8920	See Note 5			
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	PIC		Yes		***Yes***	8920	See Note 5			
*** Constituents retained for sampling**											
Nitroglycerin	55-63-0	ENER	Yes		Yes	**** Yes***	8330	2.5	200	62	R3 RBC Ind

NOTES:

1. Highlighted Constituent	AL changed as part of update of Region III RBCs for Industrial Sites dated September 12, 2008.
2. Type of Constituent	"Propellant Ingredient" = Ingredient in propellant compound. "PIC" Product of Incomplete Combustion": means that it was reported in the Bangbox Database (see Appendix A-2). "Both" Both PIC and Propellant Ingredient. "ENER" - Energetic on SW-846 Method 8330 parameter List.
3. In Waste	"Yes" - means it was reported in Radford AAP's waste characterization.
4. **BOLD** Constituent	Constituent not in 40 CFR 261 Appendix VIII List of Hazardous Substances.
5. Dioxins	Reporting Limit and Action Level will be calculated for each sample and detection, respectively. See Table 2 for example reporting format.
6. NCA	Constituent is not analyzed by commercial laboratories.
7. Source of Action Levels	**"R3 RBC Ind"** - Region III RBC for Industrial Sites - Dated September 12, 2008. **"R3 RBC Ind*"** - These constituents were removed from the September 12, 2008 RBC table. The previous AL (Region III RBC for Industrial Sites from October 2004) is listed. **"DEQ gd"** - Table 5-5 Soil Saturation Values, Page 5-27 of VDEQ Storage Tank Program Technical Manual, Rev 3, October 4, 2001. **"FWB"** - Facility Wide Background Study. **"ALM"** is the Adult Lead Methodology (ALM). NHANES III (National Health and Nutrition Evaluation Survey) is a lead study. ALM identifies 800 mg/kg as a screening value and states that it is based on an analysis of the NHANES III study and that it is "a cleanup goal protective of all subpopulations." **"ECO RISK"** - June 23, 2000 EPA memorandum Entitled *Amended Guidance on Ecological Risk Assessment at Military Bases: Process Considerations, Timing of Activities and Inclusion of Stakeholders.*
8. RL and AL	"RL" is the laboratory reporting limit and is analogous to the Limit of Quantitation (LOQ). "AL" is the Action Level based on published risk based values.
9. Reporting level changed	for 3,3-Dimethylbenzidine the action level was previously blank. For Benzo(a)pyrene and Dibenz(a,h)anthracene the laboratory changed their operating ranges to achieve a reporting limit less than the action level.
10. Action Level adjusted	for 3,3-Dimethylbenzidine the Action Level of 0.16 is below the Proposed Reporting Level of 1.6. The Proposed Reporting Level in this case is set to the level at which the laboratory feels most confident detecting this chemical at. Therefore any result above the Action Level and below the Proposed Reporting Limit will be discussed with the Virginia DEQ to determine if additional evaluation is necessary.
11. Non-pad Sample Locations** (SB-1, SB-2, NB-1, NB-2, Berm-1, and Pond-1)	Soil samples collected from non burn pad locations only require analysis for the following constituents: Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Mercury, Bromomethane, Trichloroethene, Bis(2-Ethylexyl) phthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, N-Nitrosodiphenylamine, Dioxins/furans, 2,4,6-Trinitrotoluene, 2-Amino-4, 6-dinitrotoluene, 4-Amino-2, 6-dinitrotoluene, HMX, and Nitroglycerin.

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

July 27, 2016

Mr. Russell McAvoy, PE
Environmental Engineer Senior
Office of Waste Permitting and Compliance
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: Open Burning Ground (OBG) – 2015 Annual Soil Monitoring Report- Notice of Deficiency Response to VDEQ Correspondence dated June 28, 2016
Final Permit for Treatment of Hazardous Waste at the Open Burning Ground
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

In response to the above referenced VDEQ letter, we are presenting additional information addressing VDEQ comments identified during review of the 2015 OBG Annual Soil Monitoring Report. Each VDEQ comment is listed below, followed by the facility's response. The revised RFAAP 2015 OBG Annual soil monitoring report can be access using the link below (link accessible until Feb 22, 2017).

revised 2015 report to DEQ - rev 1 july 2016

https://files.daa.com/fl/Lzg7R76x0P/revised%202015%20%20report%20to%20DEQ%20%20-%20rev%201%20july%202016_

Response to Comments:

VDEQ Comment 1- The 2014 Soil Monitoring report addressing the Open Burning Ground (OBG) was 863 pages and the accompanying data package was 4905 pages. The entirety of the 2015 Soil Monitoring Report that was submitted on a link is 1025 pages. Is there a missing portion of the report? A data package?

RFAAP Response 1: The 2015 Annual Soil Monitoring Report analytical data, Appendix F, was submitted as an abridged version of the comprehensive analytical data package (i.e., laboratory results and a summary of quality control information only). The revised 2015 Annual Soil Monitoring Report is resubmitted with the comprehensive analytical data package presented in Appendix F. Appendix F, consisting of 6277 pages, is submitted as a separate file due to file size.

*VDEQ Comment 2 -Page 4/1025 of the 2015 SMR states, "The following additional activities were conducted in 2015 associated with the OBG Soil Monitoring Program: **(1)** RFAAP concluded permit-required interim measures as a result of a hot spot nitroglycerin detection in soil at sample location PAD-3 during the permit-required OBG Annual Soil Monitoring event conducted in July 2014. Based on the soil removal and confirmation sampling activities conducted on June 23, 2015, no further action is anticipated. The soil removal report was submitted to VDEQ on July 29, 2015 and final VDEQ review is pending. **(2)** As requested by VDEQ in correspondence dated April 29, 2015, a Quantitative Human Health Risk Assessment for the OBG soils was submitted to VDEQ in October 2015. The risk assessment concluded that the risks associated with OBG soils are below the regulatory thresholds and therefore, no further action is required. VDEQ review of the report is pending. **(3)** RFAAP submitted the OBG Permit Renewal application to VDEQ in 2015 and the permit renewal is pending."*

The status of the 3 items cited above is as follows:

1. The soil removal report submitted on July 29, 2015, is approved.
2. Due to the VDEQ's recent granted extension, the facility has until June 9, 2016, to respond to the concerns raised in the VDEQ's NOD dated February 10, 2016, and the follow-up meeting of March 31, 2016, that address the Human Health Risk Assessment for the OBG soils was submitted to VDEQ in October 2015. The facilities response was received on June 27, 2016.
3. The review of the OBG Permit Renewal application is continuing.

RFAAP Response 2: Regarding status and receipt of the Recent Extension Request (2), VDEQ received the revised Human Health Risk Assessment for the OBG soils prior to the June 9, 2016 deadline. VDEQ received the document via email on June 7, 2016. The document with Army certification was received on June 27, 2016. VDEQ has previously accepted this submittal process and acknowledged the scheduling and coordination efforts required to obtain the Army Certification.

VDEQ Comment 3 - Page 7/1025 of the document states, "The ejecta zone is conservatively defined as 20 feet in all directions based on previous studies." Please supply a copy of these studies for the VDEQ's review.

RFAAP Response 3: The ejecta zone determination rationale was incorporated into the original 2005 permit issued by VDEQ (See Permit Section 3.1). The determination studies were developed under the former operator and the documentation for the studies could not be located at this time. We are working to obtain additional information as requested and RFAAP will consult OBG personnel regarding ejecta zone material disposition. This information will be submitted to VDEQ within 30 days.

VDEQ Comment 4 - Table 1 on page 16/1025 depicts soil sample locations versus sample analytical methods. Some of the hazardous constituents of concern (HCOCs) in soils samples (VOCs, SVOCs, RCRA metals) from non-burn pad locations were not run, while the table indicates that they should have been.

RFAAP Response 4: All required HCOCs were analyzed and reported as per the permit. As noted in the footnote of Table 1 on page 16/1025, Table 1 summarizes the analytical methods used per sample location, not individual HCOCs, since reporting of specific HCOCs varies at pad and non-burn pad locations, as defined by the permit. The permit specific COPC list, date modified June 2014, is presented in Appendix C- Table 1 – Identification of Constituents of Potential Concern and Note 10 of this table, as well as Section 3.2 of the permit, specifies reporting of a reduced list of HCOCs for the non-burn pad soil sample locations.

VDEQ Comment 5 - A notation should be made in the 2015 SMP and the hazardous waste permit that HCOCs: Diphenylamine (CAS # 122-39-4, noncarcinogen, RSL = 2,100 mg/kg – THQ=0.1 – Industrial Soil, Nov. 2015) and N-nitrosodiphenylamine (CAS # 86-30-6, carcinogen, RSL = 470 mg/kg – Industrial Soil, Nov. 2015) are indistinguishable when trying to analyze for them because N-nitrosodiphenylamine may transform into Diphenylamine (see page 190 of 1025). Fortunately, the observed concentrations in the soils are much lower than either of the respective Action Levels.

RFAAP Response 5: A notation was made to Tables 2A and 2 as requested. The information was presented in in the 2015 Annual Soil Report. Please refer to Appendix F, data validation report, page 3 of 32 (6125/6277).

VDEQ Comment 6 - In Table 2A, on page 19/1025, the lead concentration is listed as 620 mg/kg and the date as 8/13/2015. The correct date should be (for this case) 9/25/2015. This was a verification resample. The original sample result was 900 mg/kg – sample taken 8/13/15. The action level is 800 mg/kg (June 2014).

RFAAP Response 6: A footnote was placed in Table 2A to note the discrepancy.

VDEQ Comment 7 -In Table 2A, on page 20/1025, TPH is run on soil samples from Pads 1, 4, and 7. What is the logic/requirement for sampling at these particular locations?

RFAAP Response 7: As discussed in Section 3.2 of the permit, diesel and kerosene are occasionally used as an accelerant at these locations (i.e., pads 1, 4 and 7).

VDEQ Comment 8 - The VDEQ requests that actual achieved method detection limits (MDLs) be added next to each entry in the boxes of Tables 2A and 2B. This will facilitate the reviewer's quicker assessment of data in these Tables. Currently, one must go deeply into the document to find the achieved MDLs. It is noted that most MDLs for HCOCs in soils are fairly constant, but some do vary as illustrated on pages 654/1025, 656/1025, 658/1025 and other pages in the 2015 SMR.

RFAAP Response 8: All soil results are presented on a dry-weight basis and as a result, QLs and MDLs will vary. QLs and DL may also vary due to sample dilution. Due to formatting limitations, adjusted QLs and MDLs cannot be presented on Tables 2A and 2B. This information is available and presented in Appendix F, Data Validation - Summary of Target Analytes. The information presented in Tables 2A and 2B allows for determination if an Action Level "AL" is exceeded. For this program, as noted in the permit Section 3.0, sample results are compared to "AL."

VDEQ Comment 9 - Please add the same information requested in item 8 to ***Table 3 – Summary of Method 8290A Dioxin/Furan Results****. It is noted that the detection limits starting on page 570/1025 of the 2015 SMR are called Estimated Detection Limits (EDLs) (defined on page 566/1025) and differ from MDLs.*

RFAAP Response 9: Dioxins and Furans are analyzed using the most sensitive analytical method commercially available, Method 8290A-High Resolution GC/MS. All samples are analyzed undiluted. The method utilizes EDLs which differ from MDLs. A discussion regarding EDLs can be found on page 3519/6277, Appendix F. Due to formatting limitations, EDLs are not presented on Table 3. However, this information is available and presented in Appendix F, Analytical Results. The information presented in Table 3 allows for determination if an AL is exceeded.

VDEQ Comment 10 - Starting on page 51 of the 2015, SMR, please describe in detail, how are the locations of the Pad sampling sites picked with regard to the coordinates: x, y, and z? Is a random number generator utilized?

RFAAP Response 10: Proposed sample locations and rationale are defined in Section 3.1 of the permit and soil sample collection procedures are specified in Section 4.3 of the permit. An excerpt from the sample collection procedure, Section 4.3 is provided below and additional discussion follows. A random number generator is not utilized.

> ***"Using a plastic measuring tape, at each burn pad the location of the pad sampling point will be located by measuring the midpoints of the lengths of both pans at the pad, and then triangulating the lowest point between the two pans from the measured midpoints. This sample location will be recorded in the field logbook with the measurements noted. This triangulation process will be repeated during each subsequent sampling event. A horizontal separation of approximately 2-feet will be established for each subsequent future sampling point."***

In the field, using a plastic measuring tape, the midpoint of the length of each pan is measured and recorded as distance *x*, which represents half the length of the pan. The pans are approximately 19 feet long and the midpoints are located approximately 9 and a half feet from either end of the pan. A drainage channel, draining to the south, generally exists in the center of each pad. The low point in topography on each pad is found along the straight line from the midpoints of the two pans. The distance from the midpoint of the western pan to the low point in topography is recorded as distance *y*, the distance from the midpoint of the eastern pan to the low point in topography is recorded as distance *z*. In order to offset sampling points for subsequent sampling events, the midpoint plus or minus two feet within the low point of the drainage is used sequentially for subsequent events.

VDEQ Comment 11 - HCOCs 3-methyl phenol and 4-methyl phenol are indistinguishable when analyzed in soils (see page 190 of 1025). A notation should be made in the 2015 SMP and the hazardous waste permit of this fact. Fortunately, the observed concentrations in the OBG soils are much lower than either of the respective Action Levels.

RFAAP Response 11: A notation was made to Tables 2A and 2 as requested. The information was presented in in the 2015 Annual Soil Report. Please refer to Appendix F, data validation report, page 3 of 32 (6125/6277).

VDEQ Comment 12 - It is noted on page 370/1025 that the laboratory result should be less than the MDL to be considered nondetected.

RFAAP Response 12: A revision was obtained from the laboratory to correct the typographical error. All results were originally reported by the laboratory to the MDL and no change to the report findings and conclusion is required. The revised laboratory report is presented in Appendix F (see pages 1759/6277 and 2203/6277). Appendix F is submitted as a separate document to meet VDEQ's file size reporting limitations.

VDEQ Comment 13 - It is noted on page 673/1025 that U mg/kg=lab QL and QL(0.25) and the RL (0.65) are different. The analyte in question is tetryl. Please explain this observation.

RFAAP Response 13: Yes, the observation noted is correct. For this target analyte, the laboratory QL is less than the permit specified RL. Please note that the permit specified action level "AL" for this analyte is 1,200 mg/kg. Please note that Laboratory QLs vary. The laboratory QL is less than the permit specified RL and significantly less than the AL.

VDEQ Comment 14 - It is noted on page 708/1025 that the following statement is made: "The sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the Virginia Department of Environmental Quality (VDEQ) in correspondence dated September 27, 2011. Additionally, the September 27, 2011 Class 3 Permit Modification reduced the list of Constituents of Potential Concern (COPCs) for the Unit and added hexavalent chromium and perchlorate."

> *The VDEQ can find no evidence that the list of HCOCs was reduced as a result of the September 27, 2011, Class 3 Permit Modification. Attached is the list of HCOCs at permit issuance in 2005, the Class 1 modification and HCOC Action Level update of 2008, and the list after the 2011 Class 3 modification.*

RFAAP Response 14: The list of HCOCs was reduced as a result of a December 18, 2008 Permit Modification and presented in Footnote 11 of Table 1, Identification of Constituents of Potential Concern. The reduce list was included in the September 27, 2011 Class 3 permit Modification. Please refer to Section 3.2 (paragraph 2) of the permit which lists the reduce list of HCOCs for the non-pad locations. This HCOC reduction is also presented in footnote 10, of Table 1 associated with the September 2011 Class 3 permit Modification and footnote 11 associated with the June 2014 Permit Modification.

VDEQ Comment 15 - Attached are Sonal Iyer's comments addressing the Quantitative Human Health Risk Assessment for the OBG soils submitted to VDEQ in October 2015 that is physically contained within the 2015 Soil Monitoring Report. There are linkages between the two documents and the previous comments (above) address everything through Sonal's comment 2i and they also include comment 3. Sonal's comments 2ii, 4 and 5 are in addition to comments 1-14 above.

- *VDEQ comment 15 - 2.ii Tables 2A and 2B:*
  As per discussions between VDEQ and the facility from August through October 2015 and reflected in previous October 2015 report, if the RL for 3,3`Dimethylbenzidine is ten-fold higher than the action level, the constituent needs to be included in risk assessment. Current soil monitoring report does not discuss this QA/QC related item.

- *4 - Table 4: This table provides reduced 'Action Level (AL)' which is mentioned in the permit, by 1/10th but the screening level adjustment needs to reflect lower of 1E-6 and HQ0.1. EPA RSL website provides RSL table with this configuration. Thus, the facility is advised to use the most recent update of RSL table to obtain 'AL' – which is lower of 1E-6/HQ1 OR lower of 1E-6/HQ0.1 for 10 or more noncarcinogens. Please revise and submit Table 4.*

- *5- Section 6.0. Conclusions, page 8: Additionally, the QRA mentioned in this section was conducted using 2014 sampling data and VDEQ had provided comments on that report (dated October 2015) separately. The previous QRA has no connection with the 2015 dataset or screening level risk assessment of fresh set of data. Please remove reference to old risk assessment from this section. To avoid confusion, the appendix that includes October 2015 risk assessment report can also be removed from the current report.*

RFAAP Response 15: The following responds to the additional comments 2ii, 4 and 5 noted above:

- **2ii –The OBG soil risk assessment included 3,3-dimethylbenzidine. Additionally, results for 3,3-dimethylbenzidine presented on Tables 2A and 2B are flagged to indicate the QL, DL and RL are greater than the permit AL. This information is also presented in the data validation report of the current soil monitoring report (page 5 of 32 (page 6125/6277, Appendix F).**

- **4 - Table 4: Section 3.2 paragraph 4 of the permit defines the rationale for establishing the permit Action Level. As required by the permit Section 3.2 paragraph 6, Table 4 summarizes ten or more detected non-carcinogenic constituents of potential concern compared to 1/10 the permit AL. Table 4 accurately reflects permit conditions and no changes to Table 4 were made. Please note VDEQ and RFAAP proposed removal of this permit section language (i.e., paragraph 6, Section 3.2) during the permit renewal effort.**

- **5 - The risk assessment report has been removed from Appendix G as requested. Reference to the October 2015 date of the risk assessment report has been removed as requested.**

VDEQ Comment 16 - An additional comment is offered regarding the Quantitative Human Health Risk Assessment for the OBG soils submitted to VDEQ in October 2015. A spot check of the data (Nitroglycerin in particular) indicates that in addition to the soil samples from Pads 1-8, sample results from SB-1, SB-2, NB-1, NB-2, Pond 1 and Berm 1 were included. The question is: is this acceptable? The VDEQ's April 29, 2015, guidance letter addressing this subject to the facility states under item 6, "Treat the entire OBG as a single unit."

RFAAP Response 16: Yes, the above noted scenario (i.e., the inclusion of pad and non-pad locations in the soil risk assessment) is acceptable. The OBG soil risk assessment treated the entire OBG as a single unit and included pad and non-pad locations. All these locations are monitored annually and part of the OBG. This approach is the VDEQ agreed upon risk assessment approach used for the OBG soil risk assessment.

If you have any questions or concerns, please contact me at (540) 639-7785 or jay.stewart@baesystems.com.

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Enclosure

cc: Cassie McGoldrick, EPA, Region III (3LC50) w/attachments
Aziz Farahmand, VDEQ, Blue Ridge Regional Office w/attachments
Kurt Kochan, VDEQ, Northern Regional Office w/attachments
Sonal Iyer, VDEQ, CO w/attachments
Leslie Romanchik, VDEQ, CO wo/attachments
Ashby Scott, VDEQ, CO w/attachments
Leslie Beckwith, VDEQ, CO wo/attachments
Hasan Keceli, VDEQ, CO w/attachments
Brett Fisher, VDEQ, CO w/attachments
Maria Livaniou, VDEQ wo/attachments

Coordination: _____
J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Mark (Allen) Patton
Jody Hawks
Mike Lawless, Draper Aden Associates
Env. File

Concerning the following:

CY 2015 OBG Annual Soil Monitoring Event – Response to Comments
Open Burning Ground
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

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: Alicia M. Masson
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

BAE Systems, Ordnance Systems Inc. is contracted by the Army to conduct soil monitoring at the Open Burning Ground (a.k.a., Hazardous Waste Management Unit 13). This letter serves as additional information related to recent VDEQ comments related to the 2015 OBG Annual Soil Monitoring Report.

ROUTING AND TRANSMITTAL SLIP

DATE: 7/27/2016

TO:	**Initials**	**Date**
LTC Masson		
Don Evans		
Rob Davie	MR	7/28/16
Bill Barnett	B	8/5
Jim McKenna		
Jay Stewart	JS	07/27/2016

Action		Info	
Approval		Reply	
Circulate		See Me	
File		Signature	

Remarks:

DBG Response - 2015
Annual Soil Monitoring Report
- NOD Response

FROM:	**Room #**
BAE Environmental	**Phone #**

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

BAE SYSTEMS

August 24, 2016

Mr. Russell McAvoy, PE
Environmental Engineer Senior
Office of Waste Permitting and Compliance
Virginia Department of Environmental Quality (VDEQ)
629 East Main Street
Richmond, Virginia 23219

Subject: Open Burning Ground (OBG) – 2015 Annual Soil Monitoring Report- Notice of Deficiency Response to VDEQ Correspondence dated June 28, 2016
Final Permit for Treatment of Hazardous Waste at the Open Burning Ground
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

In response to the above referenced VDEQ letter and in addition to the response provided to VDEQ by RFAAP on July 27, 2016, we are presenting additional information addressing VDEQ Comment 3 identified during VDEQ review of the 2015 OBG Annual Soil Monitoring Report. VDEQ Comment 3 is listed below, followed by the facility's July 27, 2016 response and the facility's current response.

Response to Comment:

VDEQ Comment 3 – June 28, 2016 - Page 7/1025 of the document states, "The ejecta zone is conservatively defined as 20 feet in all directions based on previous studies." Please supply a copy of these studies for the VDEQ's review.

RFAAP July 27, 2016 Response 3: The ejecta zone determination rationale was incorporated into the original 2005 permit issued by VDEQ (See Permit Section 3.1). The determination studies were developed under the former operator and the documentation for the studies could not be located at this time. We are working to obtain additional information as requested and RFAAP will consult OBG personnel regarding ejecta zone material disposition. This information will be submitted to VDEQ within 30 days.

RFAAP Response 3: Subsequent to the July 27, 2016 Response 3 presented above, RFAAP interviewed current OBG personnel who worked at the OBG under the previous contractor in regards to the ejecta zone determination (see Permit Section 3.1). RFAAP also reviewed their records for the referenced ejecta zone determination studies. No personnel knowledge or records were recovered from this effort. RFAAP has no information concerning supporting documentation for the ejecta zone determination specified in Permit Section 3.1.

If you have any questions or concerns, please contact me at 540/639-7785 (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

cc: Cassie McGoldrick, EPA, Region III (3LC50) w/attachments
Aziz Farahmand, VDEQ, Blue Ridge Regional Office w/attachments
Kurt Kochan, VDEQ, Northern Regional Office w/attachments
Sonal Iyer, VDEQ, CO w/attachments
Leslie Romanchik, VDEQ, CO wo/attachments
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Leslie Beckwith, VDEQ, CO wo/attachments
Hasan Keceli, VDEQ, CO w/attachments
Brett Fisher, VDEQ, CO w/attachments
Maria Livaniou, VDEQ wo/attachments

Coordination: _____
J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Mark (Allen) Patton
Jody Hawks
Mike Lawless, Draper Aden Associates
Env. File

Concerning the following:

CY 2015 OBG Annual Soil Monitoring Event – Response to Comment 3
Open Burning Ground
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

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: ALICIA M. MASSON
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

BAE SYSTEMS

September 8, 2016

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: July 25, 2016 - Annual Soil Monitoring Event
Soil Monitoring Program - Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

On July 25, 2016, Radford Army Ammunition Plant (RFAAP), located in Radford, Virginia, completed the annual soil monitoring event at the Open Burning Ground (OBG). Laboratory results indicated the following constituent was detected at a concentration greater than the Permit specified Action Level (AL).

Location/Analyte	Result mg/kg (1,2)	RL mg/kg (3)	Action Limit mg/kg	Action Limit Basis
Lead				
PAD-6	1,000	0.3	800	USEPA Region 3 - RSL Industrial Table- Nov 2013

Notes:

(1) Event Date: July 25, 2016
(2) Result reported on a dry weight basis
(3) RL denotes Permit Reporting Limit, reported on a dry weight basis. Also may be referenced as Quantitation Limit (QL) or Limit of Quantitation (LOQ).

A verification event to confirm or refute the initial results noted above is scheduled for on or before September 30, 2016.

Additionally, VDEQ requested notification if 3,3-dimethylbenzidine is detected less than the Reporting Limit (RL), since the RL for this analyte, 1 mg/kg, and detection limit (DL), 0.5 mg/kg are greater than the AL of 0.16 mg/kg. For sample location PAD-6, the RL and DL for 3,3-dimethylbenzidine was adjusted due to sample dilution required to accurately quantitate a result for another target analyte. For this event, 3,3-dimethylbenzidine was not detected at or above the RL, DL, or the adjusted RL or the adjusted DL in any sample. Soil samples will continue to be analyzed for 3,3-dimethylbenzidine during future events. The adjusted RL and DL for 3,3-dimethylbenzidine at PAD-6 is provided below.

Location	Result	Adjusted RL (mg/kg)	Adjusted Detection Limit (mg/kg)	Action Level (mg/kg)	Action level Basis
3,3-Dimethylbenzidine					
PAD-6	ND	11	5.3	0.16	Region III RSL Industrial (RSL Table dated Nov 2013)

Note: ND Denotes not detected at or above detection limit or reporting limit. Sample analyzed at a 1:10 dilution.

If you have any questions or concerns, please contact me at 540/639-7785 or (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna
J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
J. Hawks
M.A. Patton
Mike Lawless, Draper Aden Associates
Env. File – 16-0900-133

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
For the July 25, 2016 Soil Monitoring Event

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: ALICIA M. MASSON
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

BAE SYSTEMS

September 23, 2016

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: September 15, 2016 – Verification Event Notification
July 25, 2016 - Soil Monitoring Program - Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

During July 2016, Radford Army Ammunition Plant (RFAAP), located in Radford, Virginia, completed the annual soil sampling event at the Open Burning Ground (OBG). Laboratory results indicated lead at PAD-6 was detected at a concentration greater than the permit specified action limit (AL) and a verification event confirm or refute the result was conducted on September 15, 2016. As summarized below, the verification event results were less than the AL, and no additional action is required.

Location/ Analyte	Initial Event Result (July 25, 2016) mg/kg (1)	Verification Event Result (September 15, 2016) mg/kg (1)	Action Limit mg/kg	Action Limit Basis
Lead				
PAD-6	1,000	530	800	USEPA Region 3 - RSL Industrial Table- Nov 2013
DUP		700		

Notes:

(1) Result reported on a dry weight basis
(2) DUP – blind field duplicate result – PAD-6 – Sept 15, 2016 event only

The details (laboratory report, QA/QC, field notes, etc.) of the soil monitoring event will be included in the 2016 Annual soil monitoring program report.

If you have any questions or concerns, please contact me at 540/639-7785 or (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

cc:
Elizabeth Lohman, VDEQ-BRRO

16-0900-145

Coordination: J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
M.A. Patton
J. Hawks
M. Lawless, Draper Aden Associates
Env. File – 16-0900-145

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program- 2016 Verification Event Sampling
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
For the July 25, 2016 Soil Monitoring Event

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: ALICIA M. MASSON
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

January 24, 2017

VIA ELECTRONIC MAIL
Mr. Jody Hawks
Environmental Specialist
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: 2015 Annual Soil Monitoring Report - Open Burning Ground (OBG), Notice of Deficiency, Radford Army Ammunition Plant (RAAP), Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. Hawks:

The Virginia Department of Environmental Quality, Office of Financial Responsibility and Waste Programs (DEQ), has completed the review of the Radford Army Ammunition Plant's (RAAP) Response to the *First Notice of Deficiency for the 2015 Annual Soil Monitoring Report, Open Burning Ground, Radford Army Ammunition Plant* (NOD Response) dated July 27, 2016 and additional submittal on August 24, 2016. The NOD Response was submitted in response to the First Technical Notice of Deficiency (Second NOD), dated June 28, 2016.

Based on the review of the NOD Response the DEQ has determined that the majority of the comments raised in the NOD Response have been resolved. However, there is one deficiency with the submitted revisions which have been addressed in the attached NOD, Comment 15, and are noted below:

- Comment 15: Regarding the response to comment 2ii; Table 2B in the 2015 annual report shows that the RL for 3,3-Dimethylbenzidine is ten-fold higher than the action level therefore, as requested in the previous risk assessment memorandum, please include this constituent in the risk assessment. The text portion of 2015 soil monitoring report does not discuss this QA/QC related item.

Please review the comment and submit the requested response within 30 days of your receipt of this letter (February 23, 2017). If more time is needed, please contact me at the email address or phone number listed below prior to the expiration of the 30 day deadline.

Please submit the responses to the DEQ in the form of one copy in PDF format and one copy in Microsoft WORD format, electronically attached to an e-mail and submit the responses to the EPA and the DEQ's Blue Ridge Regional Office in the PDF format. Please be advised that the DEQ requires all sections of the application to be in an electronic format, including drawings. The DEQ does not have the capability to copy large drawings, i.e., anything over 11 inches by 17 inches.

If you should have any questions regarding these comments, please contact me at (804) 698-4467 or by email at Ashby.Scott@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Financial Responsibility and
Waste Programs

Attachments:
Second Notice of Deficiency - 2015 Annual Soil Monitoring Report, Open Burning Ground

cc: Central Hazardous Waste Files
Cassie McGoldrick, EPA, Region III (3LC50)
Beth Lohman, Rebecca Wright, DEQ BRRO
Leslie Romanchik, Sonal Iyer, Maria Livaniou, DEQ, CO

Jim McKenna, Radford Army Ammunition Plant

1. The 2014 Soil Monitoring report addressing the Open Burning Ground (OBG) was 863 pages and the accompanying data package was 4905 pages. The entirety of the 2015 Soil Monitoring Report that was submitted on a link is 1025 pages. Is there a missing portion of the report? A data package?

   Radford Response (1-1), (Response received on 7/27/2016) – The 2015 Annual Soil Monitoring Report analytical data, Appendix F, was submitted as an abridged version of the comprehensive analytical data package (i.e., laboratory results and a summary of quality control information only). The revised 2015 Annual Soil Monitoring Report is resubmitted with the comprehensive analytical data package presented in Appendix F. Appendix F, consisting of 6277 pages, is submitted as a separate file due to file size.

   DEQ Response (1-1) – The comment is now satisfied.

2. Page 4/1025 of the 2015 SMR states, "The following additional activities were conducted in 2015 associated with the OBG Soil Monitoring Program:

   (1) RFAAP concluded permit-required interim measures as a result of a hot spot nitroglycerin detection in soil at sample location PAD-3 during the permit-required OBG Annual Soil Monitoring event conducted in July 2014. Based on the soil removal and confirmation sampling activities conducted on June 23, 2015, no further action is anticipated. The soil removal report was submitted to VDEQ on July 29, 2015 and final VDEQ review is pending.

   (2) As requested by VDEQ in correspondence dated April 29, 2015, a Quantitative Human Health Risk Assessment for the OBG soils was submitted to VDEQ in October 2015. The risk assessment concluded that the risks associated with OBG soils are below the regulatory thresholds and therefore, no further action is required. VDEQ review of the report is pending.

   (3) RFAAP submitted the OBG Permit Renewal application to VDEQ in 2015 and the permit renewal is pending."

   The status of the 3 items cited above is as follows:

   1. The soil removal report submitted on July 29, 2015, is approved.

   2. Due to the DEQ's recent granted extension, the facility has until June 9, 2016, to respond to the concerns raised in the DEQ's NOD dated February 10, 2016, and the follow-up meeting of March 31, 2016, that address the Human Health Risk Assessment for the OBG soils was submitted to VDEQ in October 2015. The facilities response was received on June 27, 2016.

   3. The review of the OBG Permit Renewal application is continuing.

Radford Response (1-1), (Response received on 7/27/2016) – Regarding status and receipt of the Recent Extension Request (2), VDEQ received the revised Human Health Risk Assessment for the OBG soils prior to the June 9, 2016 deadline. VDEQ received the document via email on June 7, 2016. The document with Army certification was received on June 27, 2016. VDEQ has previously accepted this submittal process and acknowledged the scheduling and coordination efforts required to obtain the Army Certification.

DEQ Response (1-1) – The comment is satisfied.

3. Page 7/1025 of the document states, "The ejecta zone is conservatively defined as 20 feet in all directions based on previous studies." Please supply a copy of these studies for the DEQ's review.

   Radford Response (1-1), (Response received on 7/27/2016) – The ejecta zone determination rationale was incorporated into the original 2005 permit issued by VDEQ (See Permit Section 3.1). The determination studies were developed under the former operator and the documentation for the studies could not be located at this time. We are working to obtain additional information as requested and RFAAP will consult OBG personnel regarding ejecta zone material disposition. This information will be submitted to VDEQ within 30 days.

   Radford Additional Response (1-1), (Response received on 8/24/2016) – Subsequent to the July 27, 2016 Response 3 presented above, RFAAP interviewed current OBG personnel who worked at the OBG under the previous contractor in regards to the ejecta zone determination (see Permit Section 3.1). RFAAP also reviewed their records for the referenced ejecta zone determination studies. No personnel knowledge or records were recovered from this effort. RFAAP has no information concerning supporting documentation for the ejecta zone determination specified in Permit Section 3.1.

   DEQ Response (1-1) – As no changes in waste material composition have occurred since the issuance of the 2005 permit DEQ accepts the explanation provided however, documentation of the ejecta zone radius may need to be included in the renewal application so the information can be included in the record.

4. Table 1 on page 16/1025 depicts soil sample locations versus sample analytical methods. Some of the hazardous constituents of concern (HCOCs) in soils samples (VOCs, SVOCs, RCRA metals) from non-bun pad locations were not run, while the table indicates that they should have been.

   Radford Response (1-1), (Response received on 7/27/2016) – All required HCOCs were analyzed and reported as per the permit. As noted in the footnote of Table 1 on page 16/1025, Table 1 summarizes the analytical methods used per sample location, not individual HCOCs, since reporting of specific HCOCs varies at pad and non-burn pad

locations, as defined by the permit. The permit specific COPC list, date modified June 2014, is presented in Appendix C- Table 1 - Identification of Constituents of Potential Concern and Note 10 of this table, as well as Section 3.2 of the permit, specifies reporting of a reduced list of HCOCs for the non-burn pad soil sample locations.

DEQ Response (1-1) – The comment is satisfied.

5. A notation should be made in the 2015 SMP and the hazardous waste permit that HCOCs: Diphenylamine (CAS # 122-39-4, noncarcinogen, RSL = 2,100 mg/kg – THQ=0.1 – Industrial Soil, Nov. 2015) and N-nitrosodiphenylamine (CAS # 86-30-6, carcinogen, RSL = 470 mg/kg – Industrial Soil, Nov. 2015) are indistinguishable when trying to analyze for them because N-nitrosodiphenylamine may transform into Diphenylamine (see page 190 of 1025). Fortunately, the observed concentrations in the soils are much lower than either of the respective Action Levels.

   Radford Response (1-1), (Response received on 7/27/2016) – A notation was made to Tables 2A and 2 as requested. The information was presented in in the 2015 Annual Soil Report. Please refer to Appendix F, data validation report, page 3 of 32 (6125/6277).

   DEQ Response (1-1) – The comment is now satisfied.

6. In Table 2A, on page 19/1025, the lead concentration is listed as 620 mg/kg and the date as 8/13/2015. The correct date should be (for this case) 9/25/2015. This was a verification resample. The original sample result was 900 mg/kg – sample taken 8/13/15. The action level is 800 mg/kg (June 2014).

   Radford Response (1-1), (Response received on 7/27/2016) – A footnote was placed in Table 2A to note the discrepancy.

   DEQ Response (1-1) – The comment is now satisfied.

7. In Table 2A, on page 20/1025, TPH is run on soil samples from Pads 1, 4, and 7. What is the logic/requirement for sampling at these particular locations?

   Radford Response (1-1), (Response received on 7/27/2016) – As discussed in Section 3.2 of the permit, diesel and kerosene are occasionally used as an accelerant at these locations (i.e., pads 1, 4 and 7).

   DEQ Response (1-1) – The comment is now satisfied.

8. The DEQ requests that actual achieved method detection limits (MDLs) be added next to each entry in the boxes of Tables 2A and 2B. This will facilitate the reviewer's quicker assessment of data in these Tables. Currently, one must go deeply into the document to find the achieved MDLs. It is noted that most MDLs for HCOCs in soils are fairly

constant, but some do vary as illustrated on pages 654/1025, 656/1025, 658/1025 and other pages in the 2015 SMR.

Radford Response (1-1), (Response received on 7/27/2016) – All soil results are presented on a dry-weight basis and as a result, QLs and MDLs will vary. QLs and DL may also vary due to sample dilution. Due to formatting limitations, adjusted QLs and MDLs cannot be presented on Tables 2A and 2B. This information is available and presented in Appendix F, Data Validation - Summary of Target Analytes. The information presented in Tables 2A and 2B allows for determination if an Action Level "AL" is exceeded. For this program, as noted in the permit Section 3.0, sample results are compared to "AL."

DEQ Response (1-1) – The DEQ concurs with RAAP's rationale and the comment is now satisfied.

9. Please add the same information requested in item 8 to **Table 3 – Summary of Method 8290A Dioxin/Furan Results**. It is noted that the detection limits starting on page 570/1025 of the 2015 SMR are called Estimated Detection Limits (EDLs) (defined on page 566/1025) and differ from MDLs.

   Radford Response (1-1), (Response received on 7/27/2016) – Dioxins and Furans are analyzed using the most sensitive analytical method commercially available, Method 8290A-High Resolution GC/MS. All samples are analyzed undiluted. The method utilizes EDLs which differ from MDLs. A discussion regarding EDLs can be found on page 3519/6277, Appendix F. Due to formatting limitations; EDLs are not presented on Table 3. However, this information is available and presented in Appendix F, Analytical Results. The information presented in Table 3 allows for determination if an AL is exceeded.

   DEQ Response (1-1) – The DEQ concurs with RAAP's rationale and the comment is now satisfied.

10. Starting on page 51 of the 2015, SMR, please describe in detail, how are the locations of the Pad sampling sites picked with regard to the coordinates: x, y, and z? Is a random number generator utilized?

    Radford Response (1-1), (Response received on 7/27/2016) – Proposed sample locations and rationale are defined in Section 3.1 of the permit and soil sample collection procedures are specified in Section 4.3 of the permit. An excerpt from the sample collection procedure, Section 4.3 is provided below and additional discussion follows. A random number generator is not utilized.

    "Using a plastic measuring tape, at each burn pad the location of the pad sampling point will be located by measuring the midpoints of the lengths of both pans at the pad, and

then triangulating the lowest point between the two pans from the measured midpoints. This sample location will be recorded in the field logbook with the measurements noted. This triangulation process will be repeated during each subsequent sampling event. A horizontal separation of approximately 2-feet will be established for each subsequent future sampling point."

In the field, using a plastic measuring tape, the midpoint of the length of each pan is measured and recorded as distance x, which represents half the length of the pan. The pans are approximately 19 feet long and the midpoints are located approximately 9 and a half feet from either end of the pan. A drainage channel, draining to the south, generally exists in the center of each pad. The low point in topography on each pad is found along the straight line from the midpoints of the two pans. The distance from the midpoint of the western pan to the low point in topography is recorded as distance y, the distance from the midpoint of the eastern pan to the low point in topography is recorded as distance z. In order to offset sampling points for subsequent sampling events, the midpoint plus or minus two feet within the low point of the drainage is used sequentially for subsequent events.

DEQ Response (1-1) – The comment is now satisfied. No revision to the language of the report is necessary.

11. HCOCs 3-methyl phenol and 4-methyl phenol are indistinguishable when analyzed in soils (see page 190 of 1025). A notation should be made in the 2015 SMP and the hazardous waste permit of this fact. Fortunately, the observed concentrations in the OBG soils are much lower than either of the respective Action Levels.

    Radford Response (1-1), (Response received on 7/27/2016) – A notation was made to Tables 2A and 2 as requested. The information was presented in in the 2015 Annual Soil Report. Please refer to Appendix F, data validation report, page 3 of 32 (6125/6277).

    DEQ Response (1-1) – The comment is now satisfied.

12. It is noted on page 370/1025 that the laboratory result should be less than the MDL to be considered nondetected.

    Radford Response (1-1), (Response received on 7/27/2016) – A revision was obtained from the laboratory to correct the typographical error. All results were originally reported by the laboratory to the MDL and no change to the report findings and conclusion is required. The revised laboratory report is presented in Appendix F (see pages 1759/6277 and 2203/6277). Appendix F is submitted as a separate document to meet VDEQ's file size reporting limitations.

    DEQ Response (1-1) – The comment is satisfied.

13. It is noted on page 673/1025 that U mg/kg=lab QL and QL(0.25) and the RL (0.65) are different. The analyte in question is tetryl. Please explain this observation.

    Radford Response (1-1), (Response received on 7/27/2016) – Yes, the observation noted is correct. For this target analyte, the laboratory QL is less than the permit specified RL. Please note that the permit specified action level "AL" for this analyte is 1,200 mg/kg. Please note that Laboratory QLs vary. The laboratory QL is less than the permit specified RL and significantly less than the AL.

    DEQ Response (1-1) – DEQ accepts the rationale provided by RAAP and the comment is now satisfied.

14. It is noted on page 708/1025 that the following statement is made:"The sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the Virginia Department of Environmental Quality (VDEQ) in correspondence dated September 27, 2011. Additionally, the September 27, 2011 Class 3 Permit Modification reduced the list of Constituents of Potential Concern (COPCs) for the Unit and added hexavalent chromium and perchlorate."

    The DEQ can find no evidence that the list of HCOCs was reduced as a result of the September 27, 2011, Class 3 Permit Modification. Attached is the list of HCOCs at permit issuance in 2005, the Class 1 modification and HCOC Action Level update of 2008, and the list after the 2011 Class 3 modification.

    Radford Response (1-1), (Response received on 7/27/2016) – The list of HCOCs was reduced as a result of a December 18, 2008 Permit Modification and presented in Footnote 11 of Table 1, Identification of Constituents of Potential Concern. The reduce list was included in the September 27, 2011 Class 3 permit Modification. Please refer to Section 3.2 (paragraph 2) of the permit which lists the reduce list of HCOCs for the non-pad locations. This HCOC reduction is also presented in footnote 10, of Table 1 associated with the September 2011 Class 3 permit Modification and footnote 11 associated with the June 2014 Permit Modification.

    DEQ Response (1-1) – The comment is satisfied.

15. Attached are Sonal Iyer's comments addressing the Quantitative Human Health Risk Assessment for the OBG soils submitted to VDEQ in October 2015 that is physically contained within the 2015 Soil Monitoring Report. There are linkages between the two documents and the previous comments (above) address everything through Sonal's comment 2i and they also include comment 3. Sonal's comments 2ii, 4 and 5 are in addition to comments 1-14 above.

    Radford Response (1-1), (Response received on 7/27/2016) – The following responds to the additional comments 2ii, 4 and 5 noted above:

• 2ii —The OBG soil risk assessment included 3,3-dimethylbenzidine. Additionally, results for 3,3-dimethylbenzidine presented on Tables 2A and 2B are flagged to indicate the QL, DL and RL are greater than the permit AL. This information is also presented in the data validation report of the current soil monitoring report (page 5 of 32 (page 6125/6277, Appendix F).

• 4 - Table 4: Section 3.2 paragraph 4 of the permit defines the rationale for establishing the permit Action Level. As required by the permit Section 3.2 paragraph 6, Table 4 summarizes ten or more detected non-carcinogenic constituents of potential concern compared to 1/10 the permit AL. Table 4 accurately reflects permit conditions and no changes to Table 4 were made. Please note VDEQ and RFAAP proposed removal of this permit section language (i.e., paragraph 6, Section 3.2) during the permit renewal effort.

• 5 - The risk assessment report has been removed from Appendix G as requested. Reference to the October 2015 date of the risk assessment report has been removed as requested.

DEQ Response (1-1) – Regarding the response to comment 2ii; Table 2B in the 2015 annual report shows that the RL for 3,3-Dimethylbenzidine is ten-fold higher than the action level therefore, as requested in the previous risk assessment memorandum, please include this constituent in the risk assessment. The text portion of 2015 soil monitoring report does not discuss this QA/QC related item.

Comments 4 and 5 are considered satisfied with the responses provided.

16. An additional comment is offered regarding the Quantitative Human Health Risk Assessment for the OBG soils submitted to VDEQ in October 2015. A spot check of the data (Nitroglycerin in particular) indicates that in addition to the soil samples from Pads 1-8, sample results from SB-1, SB-2, NB-1, NB-2, Pond 1 and Berm 1 were included. The question is: is this acceptable? The DEQ's April 29, 2015, guidance letter addressing this subject to the facility states under item 6, "Treat the entire OBG as a single unit."

    Radford Response (1-1), (Response received on 7/27/2016) – Yes, the above noted scenario (i.e., the inclusion of pad and non-pad locations in the soil risk assessment) is acceptable. The OBG soil risk assessment treated the entire OBG as a single unit and included pad and non-pad locations. All these locations are monitored annually and part of the OBG. This approach is the VDEQ agreed upon risk assessment approach used for the OBG soil risk assessment.

    DEQ Response (1-1) – The comment is now satisfied.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
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April 29, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment - Timing and Methodologies in Conjunction with the Annual Soil Monitoring Event – Guidance from the Virginia Department of Environmental Quality

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) letter dated March 26, 2015, from the Radford, Virginia, facility.

The letter requested the DEQ's concurrence of the RAAP's included proposed risk assessment approach to address the soils with respect to the Annual Soils Monitoring Event and in proximity to the Open Burning Ground (OBG) area prior to actually performing any risk assessment. RAAP's letter also requested that the DEQ clarify when the facility is required to complete this risk assessment.

It is noted that this risk assessment discussion only addresses contamination as determined by the Annual Soil Monitoring Event(s) and not the risk assessment methodology of the closure plan within the facility's Hazardous Waste open burning treatment permit or the multi-pathway risk assessment requirements as dictated by the permit renewal process.

Based on the DEQ's review of the 2011, 2012, and 2013 OBG, **Soil Monitoring Annual Reports**, submitted as required by the facility's Hazardous Waste open burning treatment permit, the RAAP was advised by the DEQ in a conference call on September 19, 2013, and in prior telephone and e-mail correspondence that the facility should perform a quantitative risk assessment on the most recent annual soil monitoring data. The DEQ indicated that such a risk

assessment is required because more than 10 non-carcinogenic constituents were observed at reportable concentrations and one constituent, nitroglycerin (NG), exceeded its "1/10 Action Level" in several samples collected during the 2011, 2012 and 2013 sampling events. In addition, additional technical discussions were held between the DEQ's hazardous waste risk assessor, Sonal Iyer and the facility to discuss the proposed risk assessment methodology in October 2013.

The soil samples in support of the **2014 Annual Soil Monitoring Event** were collected on July 31, 2014, with 2,4 Dinitrotoluene (carcinogen) and NG (noncarcinogen) detected at greater than the Hazardous Waste Permit-specified Action levels (ALs) at Pads 1,4 and 5 and at Pads 3 and 4, respectively. Verification re-sampling on September 18, 2014 appears to have eliminated AL exceedances of 2,4 Dinitrotoluene from consideration and NG from consideration, except at Pad 3.

To facilitate hot spot removal in accordance with the **Soil Monitoring Plan** within the Hazardous Waste Permit, *Section 8 – Interim Measures* was followed. To address NG at Pad 3, verification samples were taken on October 22, 2014, from the 0-6 inch soil layer in four locations approximately 20 feet from the point of the original exceedance of the AL in the North, South, East, and West directions. These four samples yielded NG concentrations less than the action level of 62 mg/kg. In accordance with *Section 8 – Interim Measures,* four additional random 0-24 inch core samples within a 5 foot radius of the hot spot were taken on December 8, 2014, each 6 inch interval analyzed, and the top 6 inch layer was determined to have NG levels above the detection limit.

In a letter dated March 9, 2015, the facility submitted a **Soil Removal Work Plan** to remove a 6 inch layer of soil within the 5 foot radius of the hot spot, and perform confirmation soil sampling of the sides and bottom of the excavation in accordance with the Hazardous Waste Permit, *Section 8 – Interim Measures*. Approval to proceed with this **Soil Removal Work Plan** will be provided in a separate letter.

3,3-dimethylbenzidine, a carcinogen, considered a product of incomplete combustion, was not detected in soil samples collected on July 31, 2014, for the 2014 **Annual Soil Monitoring Event** however the detection and reporting limits for this analyte are above the AL. During each previous yearly soil monitoring event, no action has been taken with regard to 3,3-dimethylbenzidine under similar scenarios, however soil samples will continue to be analyzed for this compound in the future sampling events as required by the Soil Monitoring Plan.

It was agreed between the parties (the DEQ and the RAAP), based on previous discussions documented in earlier correspondence, that the risk assessment associated with **Annual Soil Monitoring Event(s**) be done during the OBG hazardous waste permit renewal process. This process is currently underway with the current permit expiration date of October 28, 2015. Therefore, the risk assessment shall be submitted within 90 days of RAAP's receipt of this letter (or by July 28, 2015). Also, to reiterate, this risk assessment even if submitted with the permit renewal Part B Application, is not in any way related to or replaces the closure plan or the multi-pathway risk assessment.

The following are the requirements for the **Annual Soil Monitoring Event** related risk assessment – mostly derived from RAAP's March 26, 2015 proposed risk assessment methodology with the DEQ's changes indicated by underlined and struck-out text.

1. In accordance with the applicable permit conditions, compare the data from the most recent soil monitoring event against the appropriate Action Levels in the current hazardous waste permit as updated every 3 years. Data from previous soil monitoring events may be input as appropriate, but the most recent data is preferred. Screen from further consideration soil data that exceed Action Levels where interim measures are planned or ongoing in accordance with Section 8 of the current hazardous waste OBG permit. Should more than 10 non-carcinogens be detected, compare the data for non-carcinogens against the "1/10 Action Level."

2. If a target non-carcinogen (see above) constituent concentration is greater than the "1/10 Action Level" in one or more samples, perform a quantitative risk assessment for industrial (composite) worker.

3. The risk assessment will consist of human health risk assessment for site worker exposure to soil (oral. dermal and inhalation) only (250 days per year). No multimedia exposure scenarios apply and are therefore not considered.

4. Perform the risk assessment in accordance with DEQ risk assessment guidelines using REAMS (preferable) or EPA Region 3 RSL equation and defaults.

5. Perform the risk assessment for both carcinogens and non-carcinogens. Address 3,3-dimethylbenzidine – described in a previous paragraph.

6. Treat the entire OBG as a single unit. Consequently, upper confidence limits (UCL) will be computed on the detected soil concentrations for all applicable target constituents. Approve sample locations/constituents/UCLs in advance with DEQ oversight.

7. Set UCLs as exposure point concentrations (EPC).

8. Use applicable DEQ/EPA standard default values for risk assessment parameters.

9. Delineate split samples versus two separate samples in interim-measures/removals/risk assessment scenarios. Corresponding samples within 1.5 feet of each other may be considered as one sample for the purpose of this risk assessment.

10. Compute individual and cumulative risks of exposure to multiple chemicals through multiple exposure routes (inhalation, ingestion, dermal absorption).

11. Compile and submit the results in a risk assessment report to DEQ in standard format to the extent required for the present purpose.

12. The results of the risk assessment will be compared to DEQ and EPA standard default acceptable threshold levels for cumulative risk, i.e., Hazard Quotient 1 and excess cumulative cancer risk of $1x10^{-4}$. Should the cumulative risks not exceed these threshold levels, no further action will be required. Should the cumulative risks exceed these threshold levels further discussion with DEQ will be required to determine what action, if any, is required.

13. Submit gridded, to-scale diagrams depicting all soil sampling locations and depths including samples making up composite samples.

This methodology as described above is requested to be submitted as part of the **Soil Monitoring Plan** in the Part B Permit Application for the hazardous waste, OBG Permit renewal submission that is due to the DEQ by June 29, 2015.

If you have any questions or comments concerning this matter, please contact me at (804) 698-4467 or by e-mail at Ashby.Scott@deq.virginia.gov, for risk assessment related questions, please feel free to contact Ms. Sonal Iyer at (804) 698-4259 or by e-mail at Sonal.Iyer@deq.virginia.gov and for any questions regarding statistical analysis or the UCLs please contact Mr. Hasan Keceli at (804) 698-4246 or by email at Hasan.Keceli@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Waste Permitting and Compliance

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Pat McMurray, DEQ, CO
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BAE SYSTEMS

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

July 16, 2015

Mr. Ashby Scott
Program Manager
Office of Remediation Programs
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: **Open Burning Ground Soils Human Health Risk Assessment**
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. Scott:

In an e-mail correspondence dated June 26, 2015, RFAAP sent to VDEQ details pertaining to the human health risk assessment on soil data for the RAAP Open Burning Ground (OBG). The correspondence requested VDEQ's approval of sample locations/constituents/UCLs planned to be used in the risk assessment. The request for approval was based on a letter from VDEQ dated April 29, 2015 that outlined the proposed risk assessment methodology requirements for conducting and submitting the risk assessment. Item 6 of the 13 requirements stated: "Approve sample locations/constituents/UCLs in advance with DEQ oversight."

The June 26, 2015 correspondence requested VDEQ's approval of the sample locations/constituents/UCLs by July 3, 2015. The correspondence indicated that without VDEQ's approval by July 3, 2015, and due to the time-sensitive nature of the ongoing risk assessment, it would be prohibitive to be able to complete the risk assessment by VDEQ's July 28, 2015 deadline. As we have yet to receive VDEQ's final approval to the sample locations/constituents/UCLs, we request a 60 day extension to the July 28, 2015 deadline which would make the new deadline September 26, 2015.

On July 10, 2015 we submitted to your office an uncertified 90 day extension request to the July 28, 2015 deadline, which was followed by a telephone conference call with your office on the same day. We are in the process of submitting an email response to your queries from the July 10, 2015 conference call. In the interim, this 60 day extension request replaces the uncertified 90 day extension request submitted to you on July 10, 2015.

If you have any questions or concerns, please contact Mr. Matt Alberts at 540/639-8722 (matt.alberts@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Coordination: _____
J. McKenna

15-0900-109

cc: w/enclosures
Aziz Farahmand, VDEQ-BRRO
BAE Administrative File
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Leslie A. Romanchik, VDEQ-CO
Sonal Iyer, VDEQ-CO
Pat McMurray, VDEQ-CO
Hasan Keceli, VDEQ-CO
Julia King-Collins, VDEQ-CO
Justin Williams, VDEQ-CO

Concerning the following:

Radford Army Ammunition Plant
Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
Soils Risk Assessment Extension Request

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: Alicia M. Masson
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

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August 21, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Approval of Sample Locations, Constituents of Potential Concern and Upper Confidence Limits and 60 Day Extension Request Approval

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) electronic submission dated June 26, 2015, from the Radford, Virginia, facility in response to the DEQ's April 29, 2015 letter providing guidance on the Open Burning Ground (OGB) risk assessment.

The electronic submission requested the DEQ's concurrence of the RAAP's proposed soil sample locations, Constituents of Potential Concern (COPC) and Upper Confidence Limits (UCLs) planned to be used in the risk assessment. The DEQ has reviewed the submitted tables and figures and concurs that the proposed sample locations and UCLs are acceptable for use in the risk assessment and are approved by the DEQ.

However given the concerns raised by DEQ with the exclusion of 3,3-dimethylbenzidine from the COPC list during calls on July 10, 2015 and July 30, 2015 and from the DEQ's review of the subsequent letters explaining the reasoning for the exclusion, submitted on August 10, 2015 and August 13, 2015, the DEQ is requiring that 3,3-dimethylbenzidine be included in the COPC list to be evaluated at the standard of ½ of the modified detection limit, which was due to sample dilution. The DEQ does concur with the other COPC's proposed by RAAP for inclusion of the risk assessment.

Additionally when the OBG risk assessment has been completed please also submit the input soil sample data used to calculate the UCLs, via an excel spreadsheet, for verification by the DEQ's statistician, Mr. Hasan Keceli, of the submitted UCLs.

A separate electronic submission, dated July 16, 2015, was received which requested a 60 day extension to the July 28, 2015 deadline for submission of the risk assessment. In light of the time it took for DEQ to review the additional information requested a 90 day extension has been approved and the new submission date for the risk assessment is now October 26, 2015.

If you have any questions or comments concerning this matter, please contact me at (804) 698-4467 or by e-mail at Ashby.Scott@deq.virginia.gov, for risk assessment related questions, please feel free to contact Ms. Sonal Iyer at (804) 698-4259 or by e-mail at Sonal.Iyer@deq.virginia.gov and for any questions regarding statistical analysis or the UCLs please contact Mr. Hasan Keceli at (804) 698-4246 or by email at Hasan.Keceli@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Waste Permitting and Compliance

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Hasan Keceli, DEQ, CO
Julia King–Collins, DEQ, CO
Central Hazardous Waste Files

BAE SYSTEMS

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

October 14, 2015

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: Open Burning Ground (OBG) Soil Quantitative Human Health Risk Assessment
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

As requested by VDEQ in final project correspondence dated April 29, 2015, BAE Systems, Ordnance Systems Inc (BAE), completed a Quantitative Human Health Risk Assessment for the Open Burning Ground (OBG) soils, Radford Army Ammunition Plant (RFAAP), located in Radford, Virginia. The associated report is attached. The risk assessment report concludes that risks associated with OBG soils are below the regulatory thresholds; therefore, no further action is required.

If you have any questions or concerns, please contact me at 540/639-7785 or (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Matt Alberts
Mike Lawless, Draper Aden Associates
Env. File

15-0900-155

Concerning the following:

Baseline Human Health Risk Assessment
Open Burning Ground (OBG) Soil
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
For the October 13, 2015 Risk Assessment Report

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: Alicia M. Masson

TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: J. Pethebridge for

PRINTED NAME: William M. Barnett

TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

November 2, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Acknowledgement of Receipt

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) electronic submission of the Open Burning Ground Soil Quantitative Human Health Risk Assessment (OGB Soil Event HHRA), dated October 14, 2015, and received on October 22, 2015. The OBG Soil HHRA was submitted in response to the *Open Burning Ground Risk Assessment - Timing and Methodologies in Conjunction with the Annual Soil Monitoring Event – Guidance* letter dated April 29, 2015 and the subsequent 60 day extension which was granted on August 21, 2015. Review of this information will commence and you will receive DEQ's comments within 30 days (December 2, 2015).

If you have any questions concerning the information provided in this letter, please contact me at (804) 698-4467 or by email at Ashby.Scott@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Waste Permitting and Compliance

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Hasan Keceli, DEQ, CO
Russell McAvoy
Julia King–Collins, DEQ, CO
Central Hazardous Waste Files

From: Scott, Ashby (DEQ)
To: Stewart, Jay (US)
Cc: Farahmand, Aziz (DEQ); Wright, Rebecca (DEQ); Romanchik, Leslie (DEQ); Iyer, Sonal (DEQ); Mike Lawless; Janet Frazier; Srikanth Nathella; McKenna, Jim; Alberts, Matt (US); McAvoy, Russell (DEQ)
Subject: RE: 15-0900-155 RFAAP OBG Soil Quantitative Human Health Risk Assessment
Date: Wednesday, December 02, 2015 8:56:55 AM

Jay,

Due to staff resource limitations we will be unable to provide comment on the 2013 Soil Monitoring Event Risk Assessment by the due date established in the acknowledgement of receipt letter, dated November 2, 2015. The revised due date will now be January 29, 2016. Please let me know if you have any questions.

Thanks,
Ashby

Ashby R. Scott
Hazardous Waste Permit Writer
Department of Environmental Quality
629 East Main Street
Richmond, VA 23218
Phone: 804-698-4467
Fax: 804-698-4234
Ashby.Scott@deq.virginia.gov
www.deq.virginia.gov

From: Alberts, Matt (US) [mailto:matt.alberts@baesystems.com]
Sent: Thursday, October 22, 2015 4:00 PM
To: McAvoy, Russell (DEQ); Scott, Ashby (DEQ)
Cc: Farahmand, Aziz (DEQ); Wright, Rebecca (DEQ); Romanchik, Leslie (DEQ); Iyer, Sonal (DEQ); Mike Lawless (mlawless@daa.com); Janet Frazier (jfrazier@daa.com); Srikanth Nathella (snathella@daa.com); Stewart, Jay (US); McKenna, Jim
Subject: 15-0900-155 RFAAP OBG Soil Quantitative Human Health Risk Assessment

Mr. McAvoy – Please see attached transmittal letter and Human Health Risk Assessment Report for the RFAAP Open Burning Ground Soils.

Thank you and have a wonderful evening.

Matt

Matt Alberts
BAE Systems Environmental
Radford Army Ammunition Plant
Office: 540-639-8722
Mobile: 540-383-5463

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

February 10, 2016

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Notice of Deficiency

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) has completed the review of the Radford Army Ammunition Plant's (RAAP) electronic submission of the Open Burning Ground Soil Quantitative Human Health Risk Assessment (OGB Soil Event HHRA), dated October 14, 2015, and received on October 22, 2015. The OBG Soil HHRA was submitted in response to the *Open Burning Ground Risk Assessment - Timing and Methodologies in Conjunction with the Annual Soil Monitoring Event – Guidance* letter dated April 29, 2015 and the subsequent 60 day extension which was granted on August 21, 2015.

Based on the review of the OBG Soil HHRA the following comments have been made:

1. **Table 2 -** Please correct the units for dioxin- the table lists Dioxin EPC as 5.018 mg/kg. The REAMS output shows that 0.00005018 mg/kg was used for risk calculations.

2. **Section 2.4. Screening of Constituents of Potential Concern Applied to Risk Assessment, Page 6 -** While lead cannot be included in the quantitative risk assessment, the maximum detected concentration must be compared to the industrial screening level of 800 mg/kg. Per Table 2, the maximum detected concentration for lead is 610 mg/kg therefore no further discussion regarding lead is necessary at this time.

3. **Section 4.2. Recommendation and Future Evaluation, Page 16 -** The last paragraph in this section indicates that the facility believes that this risk assessment is 'baseline' and that

quantitative risk assessment for annual soil monitoring will not be conducted again. The term 'baseline' as used by EPA and DEQ does not describe what this current risk assessment represents. In simplistic terms, a baseline risk assessment is representative of the risk from contaminated site in the absence of remediation. The current risk assessment is conducted to evaluate the status of ongoing contamination levels in the soils and groundwater to meet the permit requirements at an operating facility. Furthermore, DEQ has discussed this particular scenario where the current quantitative risk assessment (QRA) may be consulted to evaluate future annual soil monitoring results and DEQ has explicitly explained that for this risk assessment to be applicable to future monitoring results, several criteria must be met which are listed as:

i. The list of contaminants detected are the same as used in this QRA,

ii. The measured concentration of the contaminants is the same or lower than the concentrations used in this QRA (i.e. EPC),

iii. The toxicity values, other chemical properties, VOC status, mutagen designation, and all the other exposure defaults used in the calculations are the same as used in this QRA,

iv. Detection limits are the same or lower, *and*

v. The screening values used are the same as in this QRA.

If any one of the above items are different than the results of the current QRA cannot be applied directly to evaluate new data. Please make a note of these important limitations. DEQ recognizes the limitations listed by the facility regarding REAMS software.

Based on the information provided by the facility and results of this risk assessment for the annual soil monitoring evaluation, the soils at the open burning ground meet the current risk based performance level of cumulative risk art or below 1E-4 and HI of 1 or below for an industrial worker.

Please review the comments and submit the requested response on a comment by comment basis within 30 days of your receipt of this letter (March 11, 2016). If more time is needed, please contact me at the email address or phone number listed below prior to the expiration of the 30 day deadline.

Additionally please provide an update on the status of the 2015 Soil Monitoring Event Report as the sampling was conducted in August of 2015 but DEQ has not received a copy of the report yet.

If you have any questions concerning the information provided in this letter, please contact me at (804) 698-4467 or by email at Ashby.Scott@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Financial Responsibility and Waste Programs

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Hasan Keceli, DEQ, CO
Russell McAvoy
Julia King–Collins, DEQ, CO
Central Hazardous Waste Files

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

BAE SYSTEMS

March 4, 2016

Leslie Romanchik
Hazardous Waste Program Manager
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: RFAAP OBG Permit Application and Soils Risk Assessment NOD Response Request for Extension to Response Deadline
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Ms. Romanchik:

BAE Systems, Ordnance Systems, Inc. (BAE) and the Radford Army Ammunition Plant (RFAAP) are in receipt of your February 5, 2016, and February 10, 2016, correspondence regarding our open burning ground (OBG) operations. The February 5th letter included the Virginia Department of Environmental Quality's (DEQ's) first notice of deficiency (NOD) on the technical completeness of the RFAAP Resource Conservation and Recovery Act (RCRA) Subpart X renewal application for our open burning ground. In the February 10th letter, DEQ provided deficiencies on the recent OBG soils risk assessment. Response dates for the letters were March 7th and March 11th, respectively.

We have been actively reviewing and formulating our response to each of the NODs. However, we feel many of these items would be most effectively addressed via a face-to-face meeting between the DEQ and RFAAP project teams. Based on scheduling information received from our team and DEQ, it will not be possible to convene this meeting prior to the March 7th or March 11th deadlines. Therefore, we are requesting an extension for the requested NOD responses.

Understanding that March and April are very busy times for both DEQ and RFAAP environmental personnel, we request a 60-day extension for both letters in order to facilitate scheduling of the meeting. Following this meeting, we will provide an initial response to each NOD and will propose a schedule for submittal of the revised permit application and revised risk assessment (if necessary). If the requested extension is granted, the NOD response for the permit application will be provided to DEQ no later than Friday, May 6, 2016, and the NOD response for the soils risk assessment will be due on or before Tuesday, May 10, 2016.

16-0900-040

If you have any questions or concerns, please contact me directly at (540) 639-7785 or via e-mail at jay.stewart@baesystems.com.

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Enclosure

c: Ashby Scott, VDEQ-CO

Coordination: J. McKenna
J. McKenna

bc: J. Stewart, BAE Staff
J. McKenna, Government Staff
Allen Patton, BAE Staff
Michele Gehring, Coterie Environmental
Janet Frazier, Draper Aden Associates
Env. File

Concerning the following:

RFAAP Open Burning Ground Permit Application and Soils Risk Assessment NOD Response
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

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: Alicia M. Masson ROBERT N DAVIS OPERATIONS, US. ARMY
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

March 7, 2016

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Extension Request Approval for the Notice of Deficiency Response for the Open Burning Grounds Annual Soil Monitoring Risk Assessment
Radford Army Ammunition Plant, Radford, VA
EPA ID No. VA1210020730

Dear Mr. Stewart:

The Virginia Department of Environmental Quality, Office of Financial Responsibility and Waste Programs (DEQ), received your request for a 60 day extension for the Radford Army Ammunition Plant's (RAAP) submission of the response to the Notice of Deficiency (NOD) for the Annual Soil Monitoring Event Risk Assessment for the Open Burning Grounds (OBG), dated March 4, 2016, via electronic mail on March 4, 2016. As detailed in your request letter, the extension is being requested to allow for additional time to complete the response to the NOD for the Annual Soil Monitoring Event Risk Assessment for the OBG, dated February 10, 2016 in order to address issues raised in the NOD and to allow for a meeting between RAAP and DEQ staff to discuss the NOD comments. Your request for an extension has been approved and the revised deadline for RAAP's submission of the completeness NOD response for the OBG renewal permit application will now be May 10, 2016, which is a revision from the previous date of March 10, 2016.

If you have any questions regarding the NOD while preparing your response please contact me at (804) 698-4467 or by e-mail at Ashby.Scott@deq.virginia.gov.

Sincerely,

Mr. Ashby Scott
Hazardous Waste Permit Writer
Office of Financial Responsibility and
Waste Programs

cc: Central Hazardous Waste Files
Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie Romanchik, Russ McAvoy, Brett Fisher, Kurt Kochan, DEQ, CO

Jim McKenna, Radford Army Ammunition Plant

COMMONWEALTH of VIRGINIA

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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

May 6, 2016

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Extension Request Approval for the Notice of Deficiency Response for the Open Burning Grounds Annual Soil Monitoring Risk Assessment
Radford Army Ammunition Plant, Radford, VA
EPA ID No. VA1210020730

Dear Mr. Stewart:

The Virginia Department of Environmental Quality, Office of Financial Responsibility and Waste Programs (DEQ), received your request for a 60 day extension for the Radford Army Ammunition Plant's (RAAP) submission of the response to the Notice of Deficiency for the Annual Soil Monitoring Event Risk Assessment for the Open Burning Grounds (OBG Soil Monitoring Risk Assessment NOD), dated February 10, 2016, with a subsequent 60 day extension approval dated March 7, 2016, via electronic mail on May 6, 2016.

As detailed in your request letter, the extension is being requested to allow for additional time to complete the response to the OBG Soil Monitoring Risk Assessment NOD for the Annual Soil Monitoring Event Risk Assessment and to review the draft revised language to the Soil Monitoring Plan, which is attached. Your request for an extension has been approved, however only for 30 days and not the originally requested 60 days, and the revised deadline for RAAP's submission of the OBG Soil Monitoring Risk Assessment NOD response will now be June 9, 2016, which is a revision from the previous date of May 10, 2016.

If you have any questions regarding the OBG Soil Monitoring Risk Assessment NOD while preparing your response please contact me at (804) 698-4467 or by e-mail at Ashby.Scott@deq.virginia.gov.

Sincerely,

Mr. Ashby Scott
Hazardous Waste Permit Writer
Office of Financial Responsibility and
Waste Programs

cc: Central Hazardous Waste Files
Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie Romanchik, Russ McAvoy, Brett Fisher, Kurt Kochan, Sonal Iyer, Hasan Keceli
Maria Livaniou DEQ, CO

Jim McKenna, Radford Army Ammunition Plant

Attachment: Draft Revised Soil Monitoring Plan for the Open Burning Ground Permit

BAE SYSTEMS

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
P.O. Box 1
Radford, VA 24143
Telephone (540) 639-7631
Fax (540) 639-8588

June 7, 2016

Mr. Ashby Scott
Program Manager
Office of Remediation Programs
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: Open Burning Ground Soils Human Health Risk Assessment - Radford Army Ammunition Plant, Radford, Virginia (RFAAP) Response to Notice of Deficiency Letter Dated February 10, 2016 EPA ID#: VA1210020730

Dear Mr. Scott:

This letter is a response to the comments in a Notice of Deficiency letter dated February 10, 2016 (DEQ Letter) regarding the October 22, 2015 submittal of the Open Burning Ground Soil Quantitative Human Health Risk Assessment (OBG Soil HHRA) dated October 14, 2015. The original response to the DEQ Letter was due on March 11, 2016. Subsequent to DEQ approvals, the response deadline for the OBG Soil HHRA is June 9, 2016.

Below are the comments contained in the February 10, 2016 letter and a response to each comment shown in *italics*. The revised OBG Soil HHRA report is attached.

DEQ Comment #1: "**Table 2** – Please correct the units for dioxin- the table lists Dioxin EPC as 5.018 mg/kg. The REAMS output show that 0.00005018 mg/kg was used for risk calculations."

Response: *Note #8 of the "Notes" section of Table 2 indicated the units for the 5.018 dioxin value are ng/kg while the units for all other COPC EPCs are mg/kg. The REAMS output shows that 0.000005018 mg/kg was used for risk calculations. Table 2 has been revised to indicate the EPC for dioxin is 0.000005018 mg/kg. Note #8 indicating the units for dioxin are ng/kg has been deleted.*

DEQ Comment #2: **Section 2.4. Screening of Constituents of Potential Concern Applied to Risk Assessment,**
Page 6 - While lead cannot be included in the quantitative risk assessment, the maximum detected concentration must be compared to the industrial screening level of 800 mg/kg. Per Table 2, the maximum detected concentration for lead is 610 mg/kg therefore no further discussion regarding lead is necessary at this time.

Response: *Acknowledged.*

DEQ Comment #3: **Section 4.2. Recommendation and Future Evaluation, Page 16 -** The last paragraph in this section indicates that the facility believes that this risk assessment is 'baseline' and that quantitative risk assessment for annual soil monitoring will not be conducted again. The term 'baseline' as used by EPA and DEQ does not describe what this current risk assessment represents. In simplistic terms, a baseline risk assessment is representative of the risk from contaminated site in the absence of remediation. The current risk assessment is conducted to evaluate the status of ongoing contamination levels in the soils and groundwater to meet the permit requirements at an operating facility. Furthermore, DEQ has discussed this particular scenario where the current quantitative risk assessment (QRA) may be consulted to evaluate future annual soil monitoring results and DEQ has explicitly explained that for this risk assessment to be applicable to future monitoring results, several criteria must be met which are listed as:

i. The list of contaminants detected are the same as used in this QRA,
ii. The measured concentration of the contaminants is the same or lower than the concentrations used in this QRA (i.e., EPC),
iii. The toxicity values, other chemical properties, VOC status, mutagen designation, and all the other exposure defaults used in the calculations are the same as used in this QRA,
iv. Detection limits are the same or lower, *and*
v. The screening values used are the same as in this QRA.

If any one of the above items are different than the results of the current QRA cannot be applied directly to evaluate new data. Please make a note of these important limitations. DEQ recognizes the limitations listed by the facility regarding REAMS software.

Response: *The OBG Soil HHRA was completed and submitted to DEQ on October 22, 2015 in response to a DEQ directive subsequent to their review of the 2011 and 2012 OBG Annual Soil Monitoring Report. Section 3.2 of the 2005 OBG Soil Monitoring Program required a comparison of concentrations of non-carcinogenic COPC to their "1/10 of the RBC" if ten or more non-carcinogenic COPCs have been detected. Based on their review of the results of the 2013 OBG Annual Soil Monitoring Report, DEQ interpreted OBG Soil HHRA as a required action.*

On May 6, 2016, DEQ proposed a draft revision to the OBG Soil Monitoring Program that removes the above mentioned 1/10 RBC comparison requirement. Consequently, Comment #3 from the DEQ Letter is moot, no response from the facility is required and no recurring risk assessment is required in future under conditions discussed in DEQ

Comment #3. However, the OBG Soil HHRA has been revised to eliminate the term "baseline" when referring to the HHRA. Furthermore, consequent to the above mentioned DEQ proposed draft revision, other references and discussion that are no longer relevant have been eliminated from the OBG Soil HHRA.

The DEQ Letter also requested an update on the status of the 2015 OBG Soil Monitoring Report. The 2015 OBG Annual Soil Monitoring Report was submitted to DEQ in February 2016.

If you have any questions or concerns, please contact me at 540/639-7785 (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Coordination: J. McKenna
J. McKenna

cc: w/enclosures
Leslie Romanchik, VDEQ-CO
Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, VDEQ-BRRO
Brett Fisher, VDEQ-CO
Kurt Kochan, VDEQ-CO
Russ McAvoy, VDEQ-CO
Sonal Iyer, DEQ-CO
Hasan Keceli, DEQ-CO
Julia King-Collins, DEQ-CO
BAE Administrative File
J. McKenna/Army Staff
BAE Adminstrative File
Allen Patton, BAE
Mike Lawless, Draper Aden Associates

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
Soils Risk Assessment

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: ALICIA M. MASSON
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

BAE SYSTEMS

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
P.O. Box 1
Radford, VA 24143
Telephone (540) 639-7631
Fax (540) 639-8588

June 7, 2016

Mr. Ashby Scott
Program Manager
Office of Remediation Programs
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: Open Burning Ground Soils Human Health Risk Assessment - Radford Army Ammunition Plant, Radford, Virginia (RFAAP) Response to Notice of Deficiency Letter Dated February 10, 2016 EPA ID#: VA1210020730

Dear Mr. Scott:

This letter is a response to the comments in a Notice of Deficiency letter dated February 10, 2016 (DEQ Letter) regarding the October 22, 2015 submittal of the Open Burning Ground Soil Quantitative Human Health Risk Assessment (OBG Soil HHRA) dated October 14, 2015. The original response to the DEQ Letter was due on March 11, 2016. Subsequent to DEQ approvals, the response deadline for the OBG Soil HHRA is June 9, 2016.

Below are the comments contained in the February 10, 2016 letter and a response to each comment shown in *italics*. The revised OBG Soil HHRA report is attached.

DEQ Comment #1: "**Table 2** – Please correct the units for dioxin- the table lists Dioxin EPC as 5.018 mg/kg. The REAMS output show that 0.00005018 mg/kg was used for risk calculations."

Response: *Note #8 of the "Notes" section of Table 2 indicated the units for the 5.018 dioxin value are ng/kg while the units for all other COPC EPCs are mg/kg. The REAMS output shows that 0.000005018 mg/kg was used for risk calculations. Table 2 has been revised to indicate the EPC for dioxin is 0.000005018 mg/kg. Note #8 indicating the units for dioxin are ng/kg has been deleted.*

DEQ Comment #2: **Section 2.4. Screening of Constituents of Potential Concern Applied to Risk Assessment,**
Page 6 - While lead cannot be included in the quantitative risk assessment, the maximum detected concentration must be compared to the industrial screening level of 800 mg/kg. Per Table 2, the maximum detected concentration for lead is 610 mg/kg therefore no further discussion regarding lead is necessary at this time.

Response: *Acknowledged.*

DEQ Comment #3: **Section 4.2. Recommendation and Future Evaluation, Page 16 -** The last paragraph in this section indicates that the facility believes that this risk assessment is 'baseline' and that quantitative risk assessment for annual soil monitoring will not be conducted again. The term 'baseline' as used by EPA and DEQ does not describe what this current risk assessment represents. In simplistic terms, a baseline risk assessment is representative of the risk from contaminated site in the absence of remediation. The current risk assessment is conducted to evaluate the status of ongoing contamination levels in the soils and groundwater to meet the permit requirements at an operating facility. Furthermore, DEQ has discussed this particular scenario where the current quantitative risk assessment (QRA) may be consulted to evaluate future annual soil monitoring results and DEQ has explicitly explained that for this risk assessment to be applicable to future monitoring results, several criteria must be met which are listed as:

i. The list of contaminants detected are the same as used in this QRA,
ii. The measured concentration of the contaminants is the same or lower than the concentrations used in this QRA (i.e., EPC),
iii. The toxicity values, other chemical properties, VOC status, mutagen designation, and all the other exposure defaults used in the calculations are the same as used in this QRA,
iv. Detection limits are the same or lower, *and*
v. The screening values used are the same as in this QRA.

If any one of the above items are different than the results of the current QRA cannot be applied directly to evaluate new data. Please make a note of these important limitations. DEQ recognizes the limitations listed by the facility regarding REAMS software.

Response: *The OBG Soil HHRA was completed and submitted to DEQ on October 22, 2015 in response to a DEQ directive subsequent to their review of the 2011 and 2012 OBG Annual Soil Monitoring Report. Section 3.2 of the 2005 OBG Soil Monitoring Program required a comparison of concentrations of non-carcinogenic COPC to their "1/10 of the RBC" if ten or more non-carcinogenic COPCs have been detected. Based on their review of the results of the 2013 OBG Annual Soil Monitoring Report, DEQ interpreted OBG Soil HHRA as a required action.*

On May 6, 2016, DEQ proposed a draft revision to the OBG Soil Monitoring Program that removes the above mentioned 1/10 RBC comparison requirement. Consequently, Comment #3 from the DEQ Letter is moot, no response from the facility is required and no recurring risk assessment is required in future under conditions discussed in DEQ

Comment #3. However, the OBG Soil HHRA has been revised to eliminate the term "baseline" when referring to the HHRA. Furthermore, consequent to the above mentioned DEQ proposed draft revision, other references and discussion that are no longer relevant have been eliminated from the OBG Soil HHRA.

The DEQ Letter also requested an update on the status of the 2015 OBG Soil Monitoring Report. The 2015 OBG Annual Soil Monitoring Report was submitted to DEQ in February 2016.

If you have any questions or concerns, please contact me at 540/639-7785 (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Coordination: J. McKenna
J. McKenna

cc: w/enclosures
Leslie Romanchik, VDEQ-CO
Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, VDEQ-BRRO
Brett Fisher, VDEQ-CO
Kurt Kochan, VDEQ-CO
Russ McAvoy, VDEQ-CO
Sonal Iyer, DEQ-CO
Hasan Keceli, DEQ-CO
Julia King-Collins, DEQ-CO
BAE Administrative File
J. McKenna/Army Staff
BAE Adminstrative File
Allen Patton, BAE
Mike Lawless, Draper Aden Associates

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
Soils Risk Assessment

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: ALICIA M. MASSON
TITLE: LTC, CM
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

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David K. Paylor
Director

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August 2, 2016

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Approval

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) has completed the review of the Radford Army Ammunition Plant's (RAAP) electronic submission of the OBG Soil Risk Assessment Related Response to DEQ Letters Dated February 10, 2016 (OGB Soil RA Related Response), dated June 7, 2016. The OBG Soil RA Related Response was submitted as additional information in response to the NOD issued by DEQ on February 10, 2016, with a 60 day extension granted on March 7, 2016 and subsequent 30 day extension granted on May 6, 2016.

RAAP's response to Comments 1 and 2 are adequate and satisfy the comments made. For Comment 3, the facility response is adequate (especially the removal of the term 'baseline') but DEQ would like to make sure the RAAP facility understands the purpose of Comment #3. The comment is applicable to a *quantitative* risk assessment, not screening level evaluation using either HQ 1 or HQ 0.1. DEQ is not requesting any response but wants to ensure that the difference between screening level comparison of data and applicability of results of quantitative risk assessment are clearly understood.

All comments for the 2014 OBG Soil Monitoring Event Risk Assessment have been satisfied and the document is now approved by DEQ.

If you have any questions concerning the information provided in this letter, please contact me at (804) 698-4467 or by email at Ashby.Scott@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Financial Responsibility and Waste Programs

cc: Cassie McGoldrick, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
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Central Hazardous Waste Files