2015 ANNUAL SOIL MONITORING REPORT

OPEN BURNING GROUND

RADFORD ARMY AMMUNITION PLANT

RADFORD, VIRGINIA

Prepared For:

BAE Systems, Ordnance Systems Inc.

Radford Army Ammunition Plant

Route 114

Radford, Virginia 24141-0100

Submitted To:

Virginia Department of Environmental Quality

629 East Main Street

Richmond, Virginia 23219

(800) 592-5482

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Prepared By:

Draper Aden Associates

Engineering • Surveying • Environmental Services

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EXECUTIVE SUMMARY

The Radford Army Ammunition Plant (RFAAP) located in Radford, Virginia is required under their *Final Permit for the Treatment of Hazardous Waste by Open Burning* (Final Permit; effective date October 28, 2005; modified September 27, 2011; and June 12, 2014) to perform annual soil monitoring in accordance with Permit Attachment II.C – *Soil Monitoring Program for the Open Burning Ground*. The June 12, 2014 Permit Modification updated the facility's Action Levels (ALs). This Annual Soil Monitoring Report summarizes activities conducted during calendar year 2015 at the Open Burning Ground (OBG).

The annual soil monitoring event was performed on August 13, 2015, and a verification event to confirm or refute an initial detection of lead in soil above the permit-specified Action Level (AL) at PAD-6 was conducted on September 25, 2015. Final analytical results for the 2015 annual monitoring event indicated that no target analytes were detected at concentrations greater than their respective permit-specified Action Levels (ALs).

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.

1.0 INTRODUCTION

This document presents the 2015 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 2015. 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 Class 3 Permit Modification dated September 27, 2011 and Class 1 Permit Modification dated June 12, 2014).

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 2015, if any.

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) 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 soil monitoring event for 2015 was conducted on August 13 and September 25, 2015 in accordance with the Class 1 Permit Modification dated June 12, 2014.

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 sample locations represent areas that are subject to overlapping zones of ejecta from each pan. The ejecta zone is conservatively defined as 20 feet in all directions based on previous studies. 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 facility 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 August and September 2015 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 August and September, 2015 soil monitoring 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 August and September 2015 soil monitoring event are summarized in this Annual Soil Monitoring Report.

4.0 SAMPLE COLLECTION

The annual soil monitoring event for calendar year 2015 was performed on August 13 and September 25, 2015 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 that lead was detected in soil sample PAD-6 at a concentration greater than the permit-specified AL. Therefore, an additional sampling event was performed on September 25, 2015 to confirm or refute the initial lead result in samplePAD-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 August and September 2015 annual monitoring events were analyzed for the COPCs listed in the SMP (as updated by the VDEQ in September 2011 and June 12, 2014; **Appendix C**). 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 August and September 2015 annual soil monitoring events are summarized in **Tables 2A** and **2B** in **Appendix B**. Dioxin/furan results for the August 2015 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 31 COPCs were detected at concentrations equal to or greater than their respective method detection limit (MDL) in the soil samples collected during the August 2015 event. Of the 31 COPCs detected, 16 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 November 2015 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 7, 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 16 carcinogenic COPCs detected during the August and September 2015 events included the following: arsenic, lead, chromium, 2,4-dinitrotoluene, 2,4,6-trinitrotoluene, 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, naphthalene, TPH-DRO, and dioxins/furans.

The 14 non-carcinogenic COPCs detected during the August 2015 event included the following: barium, cadmium, mercury, selenium, bromomethane, perchlorate, nitroglycerin, HMX, diethyl phthalate, di-n-butyl phthalate, diphenylamine, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene and fluoranthene. 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 August and September 2015 events with comparisons to 1/10 the RSLs is included in **Table 4** (**Appendix B**).

Initial laboratory results indicated that lead was detected 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 25, 2015. The verification result was less than the AL and no additional action was required.

Historical soil results are included in **Appendix E**. The complete laboratory certificates of analysis and data validation reports for the August and September 2015 soil monitoring events 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 the calendar year 2015.

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.

7.0 SIGNATURE/CERTIFICATION

Prepared by:

Name: Will Mason-Deese, Project Geologist

Signature:

Company: Draper Aden Associates

Address: 2206 South Main Street

City/State/Zip: Blacksburg, Virginia 24060-6600

Reviewed by:

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.

Name: Michael D. Lawless, Environmental Division Manager

Signature:

Virginia Professional Certification Type and Number: PG 832

Company: Draper Aden Associates

Address: 2206 South Main Street

City/State/Zip: Blacksburg, Virginia 24060-6600

APPENDIX A

FIGURES

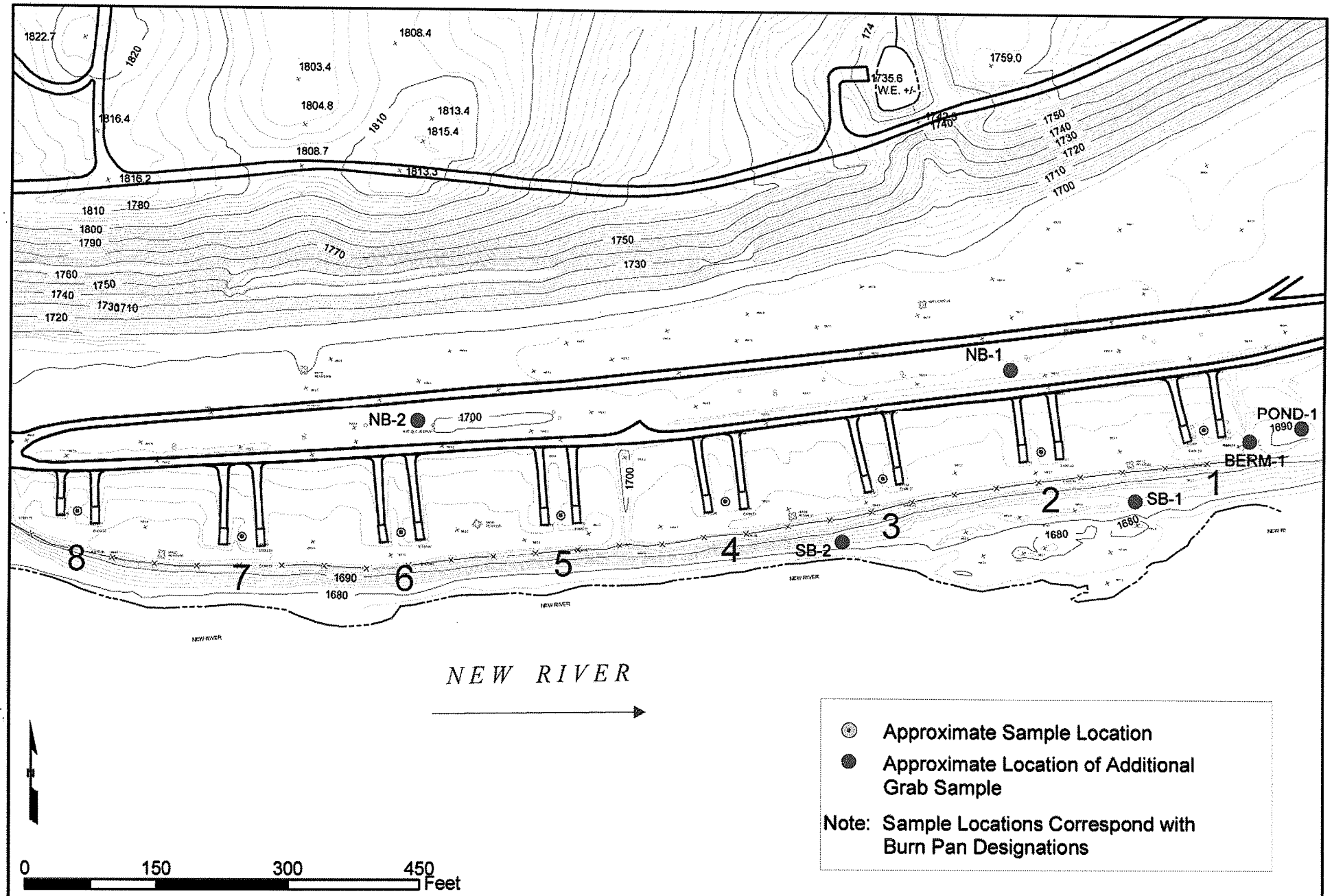

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FIGURE 1
Sample Location Map
Open Burning Ground; Radford Army Ammunition Plant; Radford, Virginia

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 (8332)	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*																					
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.

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*																					
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
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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*																					
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.

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
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

Table 4

Summary of Non-Carcinogenic Compounds of Potential Concern (COPC)
Comparison to 1/10 of the Action Limit
Open Burning Ground, RFAAP - August 2015 Soil Monitoring Event

Analyte	Sample ID	Method	Results (mg/kg)	Flag	Action level	1/10 Action level (mg/kg)	Quarter	COPC
2-Amino-4,6-Dinitrotoluene	PAD-2	8330B	0.14	J	2000	200	8/13/2015	n
4-Amino-2,6-Dinitrotoluene	PAD-2	8330B	0.145	J	1900	190	8/13/2015	n
Barium	PAD-1	6010C	170		190000	19000	8/13/2015	n
Barium	PAD-2	6010C	120		190000	19000	8/13/2015	n
Barium	PAD-3	6010C	82		190000	19000	8/13/2015	n
Barium	PAD-4	6010C	79		190000	19000	8/13/2015	n
Barium	PAD-5	6010C	76		190000	19000	8/13/2015	n
Barium	PAD-6	6010C	82		190000	19000	8/13/2015	n
Barium	PAD-7	6010C	92		190000	19000	8/13/2015	n
Barium	PAD-8	6010C	190		190000	19000	8/13/2015	n
Barium	BERM-1	6010C	79		190000	19000	8/13/2015	n
Barium	POND-1	6010C	64		190000	19000	8/13/2015	n
Barium	NB-1	6010C	110		190000	19000	8/13/2015	n
Barium	NB-2	6010C	91		190000	19000	8/13/2015	n
Barium	SB-1	6010C	100		190000	19000	8/13/2015	n
Barium	SB-2	6010C	130		190000	19000	8/13/2015	n
Bromomethane	NB-2	8260C	0.003	J	32	3.2	8/13/2015	n
Cadmium	PAD-1	6010C	0.082	J	800	80	8/13/2015	n
Cadmium	PAD-2	6010C	0.35	J	800	80	8/13/2015	n
Cadmium	PAD-4	6010C	0.18	J	800	80	8/13/2015	n
Cadmium	PAD-5	6010C	0.11	J	800	80	8/13/2015	n
Cadmium	PAD-6	6010C	0.19	J	800	80	8/13/2015	n
Cadmium	PAD-7	6010C	0.11	J	800	80	8/13/2015	n
Cadmium	PAD-8	6010C	0.037	J	800	80	8/13/2015	n
Cadmium	BERM-1	6010C	0.11	J	800	80	8/13/2015	n
Cadmium	POND-1	6010C	0.11	J	800	80	8/13/2015	n
Cadmium	NB-1	6010C	0.3	J	800	80	8/13/2015	n
Cadmium	NB-2	6010C	0.17	J	800	80	8/13/2015	n

Analyte	Sample ID	Method	Results (mg/kg)	Flag	Action level	1/10 Action level (mg/kg)	Quarter	COPC
Cadmium	SB-1	6010C	0.23	J	800	80	8/13/2015	n
Cadmium	SB-2	6010C	0.4	J	800	80	8/13/2015	n
Diethyl phthalate	PAD-1	8270D	0.094	J	490000	49000	8/13/2015	n
Diethyl phthalate	PAD-2	8270D	0.1	J	490000	49000	8/13/2015	n
Diethyl phthalate	PAD-4	8270D	0.25		490000	49000	8/13/2015	n
Diethyl phthalate	PAD-5	8270D	0.27		490000	49000	8/13/2015	n
Diethyl phthalate	PAD-6	8270D	4.1		490000	49000	8/13/2015	n
Diethyl phthalate	PAD-7	8270D	0.78		490000	49000	8/13/2015	n
Diethyl phthalate	BERM-1	8270D	0.15	J	490000	49000	8/13/2015	n
Diethyl phthalate	POND-1	8270D	0.42		490000	49000	8/13/2015	n
Diethyl phthalate	NB-1	8270D	1.4		490000	49000	8/13/2015	n
Diethyl phthalate	NB-2	8270D	0.54		490000	49000	8/13/2015	n
Diethyl phthalate	SB-2	8270D	0.27		490000	49000	8/13/2015	n
Di-n-butyl phthalate	PAD-1	8270D	1	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	PAD-2	8270D	0.28	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	PAD-4	8270D	1.8	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	PAD-5	8270D	0.99	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	PAD-6	8270D	16	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	PAD-7	8270D	0.53	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	PAD-8	8270D	2.5	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	BERM-1	8270D	0.38	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	POND-1	8270D	0.076	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	NB-1	8270D	0.91	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	NB-2	8270D	0.25	J	62000	6200	8/13/2015	n
Di-n-butyl phthalate	SB-2	8270D	0.24	J	62000	6200	8/13/2015	n
Diphenylamine	PAD-1	8270D	0.13	J	15000	1500	8/13/2015	n
Diphenylamine	PAD-2	8270D	0.077	J	15000	1500	8/13/2015	n
Diphenylamine	PAD-4	8270D	0.33		15000	1500	8/13/2015	n
Diphenylamine	PAD-5	8270D	0.16	J	15000	1500	8/13/2015	n
Diphenylamine	PAD-6	8270D	0.75	J	15000	1500	8/13/2015	n

Analyte	Sample ID	Method	Results (mg/kg)	Flag	Action level	1/10 Action level (mg/kg)	Quarter	COPC
Diphenylamine	PAD-7	8270D	0.27		15000	1500	8/13/2015	n
Diphenylamine	PAD-8	8270D	0.18		15000	1500	8/13/2015	n
Diphenylamine	BERM-1	8270D	0.51		15000	1500	8/13/2015	n
Diphenylamine	POND-1	8270D	0.089	J	15000	1500	8/13/2015	n
Diphenylamine	NB-1	8270D	0.18	J	15000	1500	8/13/2015	n
Diphenylamine	NB-2	8270D	0.048	J	15000	1500	8/13/2015	n
Fluoranthene	PAD-2	8270D	0.004	J	22000	2200	8/13/2015	n
Fluoranthene	PAD-4	8270D	0.01	J	22000	2200	8/13/2015	n
Fluoranthene	PAD-5	8270D	0.005	J	22000	2200	8/13/2015	n
Fluoranthene	PAD-6	8270D	0.023	J	22000	2200	8/13/2015	n
HMX	PAD-4	8330B	0.129	J	49000	4900	8/13/2015	n
HMX	NB-1	8330B	0.386		49000	4900	8/13/2015	n
Mercury	PAD-2	7471A	0.027	J	43	4.3	8/13/2015	n
Mercury	PAD-3	7471A	0.033	J	43	4.3	8/13/2015	n
Mercury	PAD-5	7471A	0.029	J	43	4.3	8/13/2015	n
Mercury	PAD-6	7471A	0.038	J	43	4.3	8/13/2015	n
Mercury	PAD-7	7471A	0.018	J	43	4.3	8/13/2015	n
Nitroglycerin	PAD-1	8330B	13		62	6.2	8/13/2015	n
Nitroglycerin	PAD-2	8330B	8.05		62	6.2	8/13/2015	n
Nitroglycerin	PAD-4	8330B	53.2		62	6.2	8/13/2015	n
Nitroglycerin	PAD-5	8330B	57.6		62	6.2	8/13/2015	n
Nitroglycerin	PAD-6	8330B	48.5		62	6.2	8/13/2015	n
Nitroglycerin	PAD-7	8330B	10.2		62	6.2	8/13/2015	n
Nitroglycerin	PAD-8	8330B	0.549		62	6.2	8/13/2015	n
Nitroglycerin	BERM-1	8330B	10.6		62	6.2	8/13/2015	n
Nitroglycerin	POND-1	8330B	5.26		62	6.2	8/13/2015	n
Nitroglycerin	NB-1	8330B	3.87		62	6.2	8/13/2015	n
Nitroglycerin	NB-2	8330B	56.2		62	6.2	8/13/2015	n
Nitroglycerin	SB-2	8330B	2.78		62	6.2	8/13/2015	n
Perchlorate	PAD-6	6850	0.00256		720	72	8/13/2015	n
Selenium	BERM-1	6010C	0.38	J	5100	510	8/13/2015	n
Selenium	NB-1	6010C	0.44	J	5100	510	8/13/2015	n
Selenium	SB-1	6010C	0.4	J	5100	510	8/13/2015	n
Selenium	SB-2	6010C	0.5	J	5100	510	8/13/2015	n

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).

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Laboratory: Eurofins Lancaster Laboratories 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300

0624 9/1/18

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 2015 - Annual Soil Monitoring DAA JN: B03204-215 Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES WMS 12-754-02X-Y0-4179-1883 Carrier: Tracking Number: 11-11-11-11-4264-4478

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 5: Sample Container Type P Plastic V VOA AG Amber Glass CG Clear Glass	Box 4: Sample Type G Grab C Composite	Invoice 11-11-11-11-4048-5957 Copy to Consultant: YES Bill: CLIENT OTHER Preserved and shipped on ice: YES

Box 4 - Sample Type					G	G	G	G	G							
Box 3 - Filtered/Unfiltered								U								
Required pH of Sample								<2								
Box 2 - Preservative					G	G	DI H20	A	G							
Box 5 - Sample Container Type					2-40ml V	1-40ml V	2-40 ml V	2-40 ml V	1-4 oz CG							
Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	VOAs 5035/8260C w/ sodium bisulfate	VOAs 5035/8260C w/ methanol	VOAs 5030C/8260C (backup) *	VOAs 5030C/8260C	SVOCs 8270D	Dry Weight						
PAD-1	08/13	0935	S	5	X	X	X		X	X						
PAD-2		1045	S	5	X	X	X		X	X						
PAD-3		1040	S	5	X	X	X		X	X						
PAD-4		1055	S	5	X	X	X		X	X						
PAD-4ms		1055	S	5	X	X	X		X	X						use for MS / MSD...
PAD-4msd		1055	S	5	X	X	X		X	X						
PAD-5		1110	S	5	X	X	X		X	X						
PAD-6		1135	S	5	X	X	X		X	X						
PAD-7		1150	S	5	X	X	X		X	X						
PAD-8		1210	S	5	X	X	X		X	X						
PAD-X		1155	S	5	X	X	X		X	X						
Trip Blank		—	T	2				X								1 TRIP Blank required FOR EACH DAY

GENERAL NOTES:

1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS. 8260C/5035-2 VOA with sodium bisulfate and 1-VOA with methanol.
3. * Use 5030C/8260C DI as a backup if effervescense is observed.
4. Report in mg/kg. VELAP Accreditation required.
5. Special pricing - $129/VOC; $200/SVOC.

WMD 8-13-15

* All 5035A samples preserved with sodium bisulfate produced effervescence.

Clients Special Instructions: Level 1 with edd.

Received by lab in Good Condition X Yes ____ No Custody Seal Intact X Yes ____ No Temperature upon arrival 0.3-0.1 Received on Ice X Yes ____ No

Describe problems, if any:

Sampler Name Print): Will Mason-Deese	Date: 8-13-15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name Print): Ken Caddington	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

1/4 8/14/15

Laboratory: ELLE, LLC, 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300

11200 1584970 8007412-30

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** *YES* **Carrier:** **Tracking Number:**		

Box 1: Matrix
SW Surface Water, T Trip Blank, GW Groundwater, E Equipment Blank, 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 (<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	G	G	G	G	G		
Box 3 - Filtered/Unfiltered										U		
Required pH of Sample										<2		
Box 2 - Preservative					G	G	H	H	H20	A		
Box 5 - Sample Container Type					2-40ml V	1-40ml V	1-4 oz CG		2-40 ml V	2-40 ml VOA CG		
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**VOAs 5035A/8260C**	**VOAs 5035A/8260C**	**SVOCs 8270D**	**DRY WEIGHT**	**VOAs 5030C/8260C (backup) ***	**VOAs 5030C/8260C**		
NB-1	8/13	1015	S	6 5	X	X	X	X	X			
NB-2		1230	S	6 5	X	X	X	X	X			
SB-1		1300	S	6 5	X	X	X	X	X			
SB-2		1313	S	6 5	X	X	X	X	X			
BERM-1		0900	S	6 5	X	X	X	X	X			
POND-1		0920	S	6 5	X	X	X	X	X			
Trip Blank	8/13	—	T	2						X		

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS. 8260C/5035-2 VOA with sodium bisulfate and 1-VOA with methanol.
3. * Use backup if effervescence is observed.

† Trip blank per day. Delete if not required.

Clients Special Instructions: level 1 with edd.

Received by lab in Good Condition X Yes ____ No Custody Seal Intact X Yes ____ No Temperature upon arrival 2.3-0.7 Received on Ice X Yes ____ No

Describe problems, if any:

Sampler Name (Print): KEN GODDINGTON	Date: 8/13/15	#1 Relinquished by (Signature):	Date:	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: [signature]	Time: 0630	Company Name:	Time:	Company Name:	Time:	
Sampler Name (Print): William Mason Deere	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature): [signature]	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

2/4 8/13/15

1584970

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event
Based on revised permit effective June 12, 2014

ANALYTICAL METHOD: 8260C/5035A (SOIL) 8260C/5030 (Trip Blank)
TYPE METHOD: GCMS
CLASS: VOLATILE

Analyte List for: All PAD Samples and Trip Blank

No.	Constituent	CASRN
1	1,2-Dichloroethane	107-06-2
2	Benzene	71-43-2
3	Benzyl chloride	100-44-7
4	Carbon tetrachloride	56-23-5
5	Chlorobenzene	108-90-7
6	Chloroform	67-66-3
7	Methyl bromide (Bromomethane)	74-83-9
8	Methyl chloride (Chloromethane)	74-87-3
9	Methylene chloride	75-09-2
10	Tetrachloroethylene	127-18-4
11	Toluene	108-88-3
12	Trichloroethylene	79-01-6
13	Vinyl chloride	75-01-4
14	Vinylidene chloride (1,1-Dichloroethene)	75-35-4

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

No.	ANALYTE	CAS RN
1.	Trichloroethene	79-01-6
2.	Bromomethane	74-83-9

\\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

1584970

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event
Based on revised permit effective June 12, 2014

ANALYTICAL METHOD: 8270D/3546
TYPE METHOD: GCMS
CLASS: SEMIVOLATILE

Analyte List for: All PAD Samples

No.	Constituent	CASRN
1	2,4-Dichlorophenol	120-83-2
2	2-Chlorophenol	95-57-8
3	3-Methylphenol	108-39-4
4	4-Methylphenol	106-44-5
5	3,3-Dimethylbenzidine	119-93-7
6	4-Nitrophenol	100-02-7
7	Acetophenone	98-86-2
8	Benz(a)anthracene	56-55-3
9	Benzo(a)pyrene	50-32-8
10	Benzo(b)fluoranthene	205-99-2
11	Benzo(k)fluoranthene	207-08-9
12	bis(2-Ethylhexyl)phthalate	117-81-7
13	Butylbenzylphthalate	85-68-7
14	Dibenz(a,h)anthracene	53-70-3
15	Diethylphthalate	84-66-2
16	Dimethyl phthalate	131-11-3
17	Di-n-butyl phthalate	84-74-2
18	Diphenylamine	122-39-4
19	Fluoranthene	206-44-0
20	Hexachloroethane	67-72-1
21	Indeno(1,2,3-cd)pyrene	193-39-5
22	Naphthalene	91-20-3
23	Phenol	108-95-2

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

No.	ANALYTE	CAS RN
1.	Bis(2-ethylhexyl) phthalate	117-81-7
2.	Diethylphthalate	84-66-2
3.	Dimethylphthalate	131-11-3
4.	Di-n-butylphthalate	84-74-2
5.	N-nitrosodiphenylamine/diphenylamine	122-39-4

Laboratory: Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300 11200 1584970 8007412-30 OK JLK 8/10/15

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 2015 - Annual Soil Monitoring DAA JN: B03204-215 Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UDC: Carrier: 12-75Y-02X-Y0-4179-1883 Tracking Number: 12-75Y-02X-Y0-4264-4478

Box 1: Matrix	Box 2: Preservative	Box 3: Filtered/Unfiltered	Box 4: Sample Type	Invoice
SW Surface Water GW Groundwater L Leachate S Soil T Trip Blank E Equipment Blank P Product O Other	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	F Filtered U Unfiltered **Box 5: Sample Container Type** P Plastic V VOA AG Amber Glass CG Clear Glass	G Grab C Composite	Copy to Consultant: YES Bill: CLIENT OTHER ____ Preserved and shipped on ice: YES

Box 4 - Sample Type	G	G
Box 3 - Filtered/Unfiltered	U	U
Required pH of Sample	<2	
Box 2 - Preservative	A	
Box 5 - Sample Container Type	3-40 ml V	2-250 ML AG

GENERAL NOTES:

1. Estimated results required.
VELAP Accreditation required.
Special pricing - $129/VOC; $200/SVOC.

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	VOAs 5030C/8260C	SVOCs 8270D	
~~EQ BLK~~ FB	8/13	0715	W	5	X	X	pre-sampling equipment blank

8/13/15

lients Special Instructions: Level 1 with edd.

Received by lab in Good Condition X Yes ___ No Custody Seal Intact X Yes ___ No Temperature upon arrival 0.3-0.7 Received on Ice X Yes ___ No

Describe problems, if any:

Sampler Name (Print): KEN CODDINGTON	Date: 8/13/15	#1 Relinquished by (Signature): [signature]	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: [signature]	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason-Dees	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature): [signature]	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

(A) OK to report w/ annual soil event. Separate data package not required. JLK 8/10/15

1/3 [initials]

1584970

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

2/3

ANALYTICAL METHOD:) 8260C/5030C
TYPE METHOD: GCMS
CLASS: VOLATILE

No.	Constituent	CASRN
1	1,2-Dichloroethane	107-06-2
2	Benzene	71-43-2
3	Benzyl chloride	100-44-7
4	Carbon tetrachloride	56-23-5
5	Chlorobenzene	108-90-7
6	Chloroform	67-66-3
7	Methyl bromide (Bromomethane)	74-83-9
8	Methyl chloride (Chloromethane)	74-87-3
9	Methylene chloride	75-09-2
10	Tetrachloroethylene	127-18-4
11	Toluene	108-88-3
12	Trichloroethylene	79-01-6
13	Vinyl chloride	75-01-4
14	Vinylidene chloride (1,1-Dichloroethene)	75-35-4

VELAP ✓

1584970

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

3/3

ANALYTICAL METHOD: 8270D
TYPE METHOD: GCMS
CLASS: SEMIVOLATILE

No.	Constituent	CASRN
1	2,4-Dichlorophenol	120-83-2
2	2-Chlorophenol	95-57-8
3	3-Methylphenol	108-39-4
4	4-Methylphenol	106-44-5
5	3,3-Dimethylbenzidine	119-93-7
6	4-Nitrophenol	100-02-7
7	Acetophenone	98-86-2
8	Benz(a)anthracene	56-55-3
9	Benzo(a)pyrene	50-32-8
10	Benzo(b)fluoranthene	205-99-2
11	Benzo(k)fluoranthene	207-08-9
12	bis(2-Ethylhexyl)phthalate	117-81-7
13	Butylbenzylphthalate	85-68-7
14	Dibenz(a,h)anthracene	53-70-3
15	Diethylphthalate	84-66-2
16	Dimethyl phthalate	131-11-3
17	Di-n-butyl phthalate	84-74-2
18	Diphenylamine	122-39-4
19	Fluoranthene	206-44-0
20	Hexachloroethane	67-72-1
21	Indeno(1,2,3-cd)pyrene	193-39-5
22	Naphthalene	91-20-3
23	Phenol	108-95-2

VBLAP ✓

T:\Environmental\BBG\Databases\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\Annual OBG Soil Event\2015- Unit 13-OBG - EQ Blank.doc

Laboratory: Microbac Laboratories- Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 contact: Michelle Taylor 1-740-373-4071 X 4167

OK JV 8/14/15

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UPS: 12-237-301-01-9853-5451 Carrier: 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	G	G									
Box 3 - Filtered/Unfiltered					NA	NA	NA									
Required pH of Sample					NA	NA	NA									
Box 2 - Preservative					G	G	G									
Box 5 - Sample Container Type					1-4 oz. AG		1-4oz. AG									
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**Perchlorate - 6850**	**DRY WEIGHT**	**8330B -AIR DRY**									
PAD-1	8/13	0935	S	2	X	X	X									
PAD-2		1005	S	2	X	X	X									
PAD-3		1040	S	2	X	X	X									
PAD-4		1055	S	2	X	X	X									
PAD-4ms		1055	S	2	X	X	X									
PAD-4msd		1055	S	2	X	X	X									
PAD-5		1110	S	2	X	X	X									
PAD-6		1135	S	2	X	X	X									
PAD-7		1150	S	2	X	X	X									
PAD-8		1210	S	2	X	X	X									
PAD-X		1155	S	2	X	X	X									

GENERAL NOTES:
1. Estimated results required. Level 4/comprehensive deliverable
2. Report results on a DRY WEIGHT BASIS.
3. Report results in mg/kg.

PAD-4 ~~MW~~ is the designated sample for lab to use for MS / MSD... JV 8/14/15

Clients Special Instructions:
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): KEY COORDINATOR	Date: 8/13/15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature)
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1706	Company Name:
Sampler Name (Print): Will Mason Dacy	Date: 8-13-15	#1 Received by (Signature):	Date:	#2 Received by (Signature)
Sampler Signature:	Time: 0630	Company Name:	Time:	Company Name:

Microbac OVD
Received: 08/14/2015 10:18
By: BRENDA GREGORY 221000073958
Brenda Gregory

Sample Storage Time Requested: YS ORG/6 MTHS RG

1/3

3/3

ANALYTICAL METHOD: 8330B (AIR DRY PREP) - Microbac, Marietta, OH
TYPE METHOD: Explosives

Analyte List for: All PAD Samples

Constituent	CASRN	SW-846 Method
Nitroglycerin	55-63-0	8330B ✓
1,3,5-Trinitrobenzene	99-35-4	8330B ✓
2,4,6-Trinitrotoluene	118-96-7	8330B ✓
2-amino-4,6-dinitrotoluene	35572-78-2	8330B ✓
4-amino-2,6-dinitrotoluene	19406-51-0	8330B ✓
1,3-Dinitrobenzene	99-65-0	8330B ✓
2,4-Dinitrotoluene	121-14-2	8330B ✓
2,6-Dinitrotoluene	606-20-2	8330B ✓
2-Nitrotoluene (ortho)	88-72-2	8330B ✓
3-Nitrotoluene (meta)	99-08-1	8330B ✓
4-Nitrotoluene (para)	99-99-0	8330B ✓
HMX	2691-41-0	8330B ✓
Nitrobenzene	98-95-3	8330B ✓
RDX	121-82-4	8330B ✓
Tetryl	479-45-8	8330B ✓

7/28/15

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

Method 8330B (~~SIR~~ AIR DRY PREP) : - Microbac, Marietta, OH 7-8-15

No.	PARAMETER	CAS RN
1.	2,4,6-trinitrotoluene (2,4,6-TNT)	118-96-7
2.	2,4-dinitrotoluene (2,4-DNT)	121-14-2
3.	HMX	2691-41-0
4.	2-amino-4,6-dinitrotoluene	35572-78-2
5.	4-amino-2,6-dinitrotoluene	19406-51-0
6.	Nitroglycerin	55-63-0

Microbac OVD
Received: 08/14/2015 10:18
By: BRENDA GREGORY 221000073958

Brenda Gregory

\\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

Laboratory: Microbac Laboratories- Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 contact: Michelle Taylor X 4167

ok JLa 8/10/15

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**			**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** *YES* **Carrier:** **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					NA								
Required pH of Sample					NA								
Box 2 - Preservative					G								
Box 5 - Sample Container Type					1-4 oz AG								
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**8330B -AIR DRY (S-PREP)**								
NB-1	8/13	1015	S	1	X								
NB-2		1230	S	1	X								
SB-1		1300	S	1	X								
SB-2		1315	S	1	X								
BERM-1		0900	S	1	X								
POND-1		0920	S	1	X								

GENERAL NOTES:
1. **Estimated results required.**
2. **Level 4/comprehensive deliverable**
3. **Report results on a DRY WEIGHT BASIS.**
4. **Report results in mg/kg.**
5. **VELAP Accreditation required.**

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): Will Mason-Deere	Date: 8-13-15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relin by (Sign	
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1700	Compar Name:	
Sampler Name (Print): KEN CODYNATON	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Rece by (Sign	
Sampler Signature:	Time: 0630	Company Name:	Time:	Compar Name:	

Microbac OVD
Received: 08/14/2015 10:18
By: BRENDA GREGORY 221000074002
Brenda Gregory

Sample Storage Time Requested:
30 DYS ORG/6 MTHS INORG

2/3

1.8/C2.8 2.8/C3.8 1.2/C2.2

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-330-966-9387

OK JW 8/10/15

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 2015 - Annual Soil Monitoring DAA JN: B03204-215 Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UPS: 12-237-301-01-9560-8075 Carrier: 12-237-301-01-9984-9469 Tracking Number: 12-237-301-01-9532-7280

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

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

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	Hexavalent Chromium 7196A/3060A	TPH-DRO 8015C	RCRA Metals 6010C/7471A	Dioxins/Furans 8290A	RCRA Metals 6010C / 7470A	DRY WEIGHT (aliquot from method container)	
Box 4 - Sample Type					G	G	G	G	G		
Box 3 - Filtered/Unfiltered									U		
Required pH of Sample									<2		
Box 2 - Preservative					G	H	H	H	B		
Box 5 - Sample Container Type					1-4 oz CG	1-4 oz CG	1-4 oz CG	2-4 oz AG	1-500 ml P		
PAD-1	8/13	0935	S	5	X	X	X	X		X	
PAD-2		1005	S	4	X		X	X		X	
PAD-3		1040	S	4	X		X	X		X	
PAD-4		1055	S	5	X	X	X	X		X	use for MS / MSD...
PAD-4ms		1055	S	5	X	X	X	X		X	
PAD-4msd		1055	S	5	X	X	X	X		X	
PAD-5		1115	S	4	X		X	X		X	
PAD-6		1135	S	4	X		X	X		X	
PAD-7		1150	S	5	X	X	X	X		X	
PAD-8		1210	S	4	X		X	X		X	
PAD-X		1155	S	3	X	X	X			X	
PAD-XX		0940	S	2				X		X	PAD-XX used for dioxin blind field duplicate only
~~Equip Blank~~			~~E~~	~~1~~					X	not on this COC JVR 8-10-2015	

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.

lients 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: 8/13/15	#1 Relinquished by (Signature): [signature]	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: [signature]	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason Dee	Date: 8-13-15	#1 Received by (Signature): [signature]	Date: 8-14-15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0630	Company Name: TA	Time: 1000	Company Name:	Time:	

1/4 JVR 8/10/15

8/31/2015

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-800-966-9387

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES **Carrier:** **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

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.

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles				RCRA Metals 6010C	Dioxins/Furans 8290A				DRY WEIGHT (aliquot from method container)
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				
NB-1	8/13	1015	S	3				X	X				X
NB-2	"	1230	S	3				X	X				X
SB-1		1300	S	3				X	X				X
SB-2		1315	S	3				X	X				X
BERM-1		0900	S	3				X	X				X
POND-1		0920	S	3				X	X				X

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: 8/13/15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1706	Company Name:	Time:	
Sampler Name (Print): Will Mason	Date: 8/13/15	#1 Received by (Signature):	Date: 8-14-15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name: TA	Time: 1000	Company Name:	Time:	

8/31/2015

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-800-966-9387

dc JVK 8/10/15

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES **Carrier:** **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	G	G						
Box 3 - Filtered/Unfiltered					U	U	U						
Required pH of Sample													
Box 2 - Preservative							B						
Box 5 - Sample Container Type					2-1L AG	4-1L AG	1-500 ML P						
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**TPH-DRO 8015C**	**Dioxins/Furans 8290A**	**RCRA Metals 6010C/7470** (*)						
~~EQ BLK~~	8/13	0715	W	7	X	X	~~X~~						Pre-sampling Equipment Blank
EB	8/13	~~1240~~ 1240					X						
EB													
EB													
8-13-15		8-13-15											

GENERAL NOTES:
1. Estimated results required. VELAP required. Dioxin/Furans to TA Knoxville, all other methods TA North Canton.

(*) See attached analyte list. JVK 8/13/15

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: 8/13/15	#1 Relinquished by (Signature): [signature]	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: [signature]	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason-Desse	Date: 8/13/15	#1 Received by (Signature): [signature]	Date: 8-14-15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0630	Company Name: TA	Time: 1000	Company Name:	Time:	

(*) ok to report w/ annual soil event. Separate data package not required. JVK 8/13/15

1/2

8/31/2015

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/7471A/7470A
TYPE METHOD: Inorganics

PAD samples - [illegible] 8/10/15

Analyte List for: All PAD Samples and ~~Equipment Blank~~ Only

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 (soil) 7~~470A (water-Equipment Blank)~~

EQ BLANK All Metals [illegible] 7-8-15

(eq. blank on separate COC. [illegible] 8/10/15)

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

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

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

Test America – N. Canton

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	~~7471A (soil)~~ 7470A (water-Equipment Blank)

VELAP ✓
UVR

VELAP ✓
AT 8/13/15

2/2

T:\Environmental\BBG\Databases\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\Annual OBG Soil Event\2015- Unit 13-OBG - EQ Blank.doc

S.6/C1.5

aboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-330-966-9387

OK JLK 9-22-2015

lient: Draper Aden Associates ttn: ddress: hone: ax: ax:	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: Sept 2015 - Verification Soil Monitoring Event DAA JN: B03204-215 Lab JN:	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UPS Carrier: 1Z237-301-44-9705-2733 Tracking Number:

ox 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	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	1-4oz CG

GENERAL NOTES:

1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. VELAP required.

Quick turn around, if possible - 3-4 days. JLK 9/22/2015

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	Lead Only - 6010C
PAD-6	9/25	0800	S	1	X
DUP	9/25	0810	S	1	X

ents Special Instructions: Level 4 with edd.

eceived by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on Ice ____ Yes ____ No

escribe problems, if any:

ampler Name Print): Tyler Emery	Date: 9/25/15	#1 Relinquished by (Signature): [signature]	Date: 9/25/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
ampler ignature: [signature]	Time: 0700	Company Name: DAA	Time: 1200	Company Name:	Time:	30 DYS ORG/6 MTHS INORG
ampler Name Print): Ken Coddington	Date: 9/25/15	#1 Received by (Signature): Jacquelyn Ferrel	Date: 9/26/15	#2 Received by (Signature):	Date:	
ampler ignature: [signature]	Time: 0700	Company Name: TANC	Time: 0900	Company Name:	Time:	

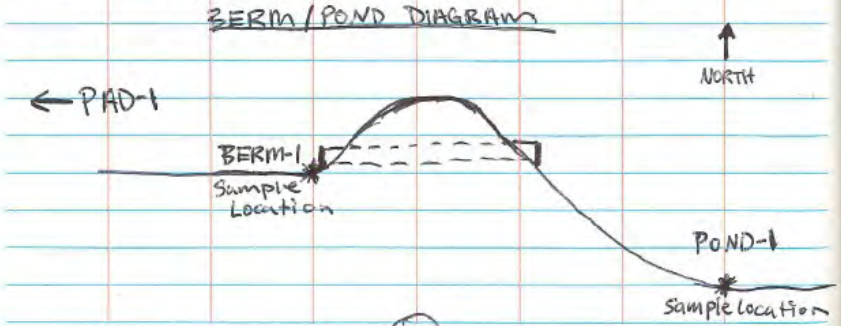
OK JLK 9-22-2015

OBG/SWMU-13
B03204-215
WMD/KFC

GENERAL NOTES

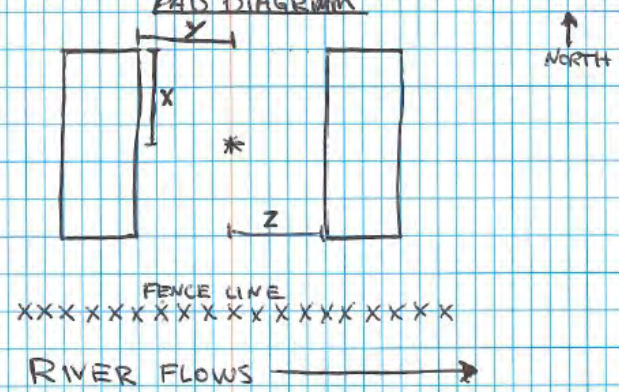
- Weather: Clear, mostly sunny + 70°s, no wind
- PPE: White flame Retardant cover-alls, chemical resistant boots, eye protection, nitrile + neoprene gloves.
- Equipment: Deconned dedicated sampling equipment and re-packed sampling trowels stored in foil and ziplock bags after deconning.
- Decon Water: 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.
- Refer to diagrams for each sampling point and sample location.

BERM/POND DIAGRAM



OBG/SWMU-13
B03204-215
WMD/KFC

PAD DIAGRAM



BERM-1

WMD 8-13-15
(1) 8270D/DW
~~(1) 8270D/DW~~, (1) 6010C, 8290A, (1) 8330B
5035 - effervesced

Sample Time (0900)
Samples Collected: (3) 5035A/8260C,

POND-1

5035 effervesced
Sample Time (0920)
Samples Collected: (3) 5035A/8260C,
(1) 8270D/DW, (1) 6010C, 8290A, (1) 8330B
Sample taken 20' east of mouth of culvert

PAD-1

Sample Time (0935)
Samples Collected: (3) 5035A/8260C,
(1) 8270D/DW, (1) 6010C, (1) 6850, (1) 8330B, (1) 7196A/3060A,
(2) 8290A 7471A, (1) 8015C
x = 9' 7"
y = 11' z = 24'

PAD-XX (Taken From Pad-1)

Sample Time (0940)

Samples Collected: (2) 8290A

PAD-2

(1005) WMD 8-13-15

Sample Time (~~1015~~)

Samples Collected: (3) 5035A/8260C, (1) 8270D/DW, (1) 7196A/3060A, (1) 6010C/7471A, (2) 8290A, (1) 6850/DW (1) 8330B

x = 9' 6"

y = 11' 5" z = ~~35~~ 25' 7"

PAD-3

Sample Time (1040)

Samples Collected: (3) 5035A/8260C, (1) 8270D/DW, (1) 7196A/3060A, (1) 6010C/7471A, (2) 8290A, (1) 6850/DW, (1) 8330B

x = 9' 7"

y = 10' 3" z = 20'

PAD-4

Sample Time (1055)

Samples Collected: (3) 5035/8260C, (3) 8270D/DW, (3) 7196A/3060A, (3) 6010C/7471A, (4) 8290A, (3) 6850/DW, (3) 8330B, (3) 8015C

x = 9' 7"

y = 10' z = ~~35~~ 25' WMD 8-13-15

PAD-5

Sample Time (1110)

Samples Collected: (3) 5035A/8260C, (1) 8270D/DW, (1) 7196A/3060A, (1) 6010C/7471A, (2) 8290A, (1) 6850/DW, (1) 8330B

x = 9' 7"

y = 10' z = 20'

PAD-6

Sample Time (1135)

Samples Collected: (3) 5035A/8260C, (1) 8270D/DW, (1) 7196A/3060A, (1) 6010C/7471A, (2) 8290A, (1) 6850/DW, (1) 8330B

x = 9' 7"

y = 11' 4" z = 24' 1"

PAD-7

Sample Time (1150)

Samples Collected: (3) 5035A/8260C, (1) 8270D/DW, (1) 7196A/3060A, (1) 6010C/7471A, (2) 8290A, (1) 6850/DW, (1) 8330B, (1) 8015C

x = 9' 7"

y = 10' 7" z = 25' 5"

PAD-8

Sample Time (1210)

Samples Collected: (3) 5035A/8260C, (1) 8270D/DW, (1) 7196A/3060A, (1) 6010C/7471A, (2) 8290A, (1) 6850/DW, (1) 8330B

x = 9' 7"

y = 11 z = 23' 6"

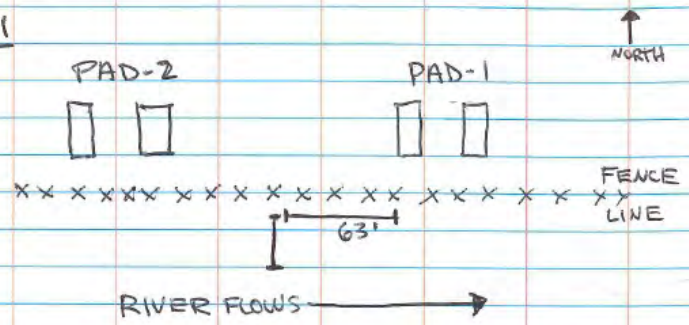
OBG/SWMU-13
B03204-215
WMD/KFC

PAD-X (Taken from PAD-7)

Sample Time (1155)

Samples Collected: (3)5035A/8260C, (1)8270D/DW, (1)6850, (1)8330, (1)7196A/3060A, (1)6010C/7471A, (1)8015C

SB-1

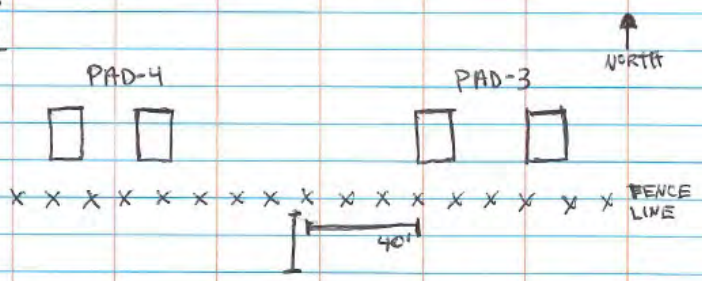


Sample Time (1300)

Samples Collected: (3) 5035A/8260C, (1)8270D/DW ~~(1)6850/DW~~, (1)8330B, (1)6010C, ~~(1)~~ 8290

WMD 6-13-15

SB-2

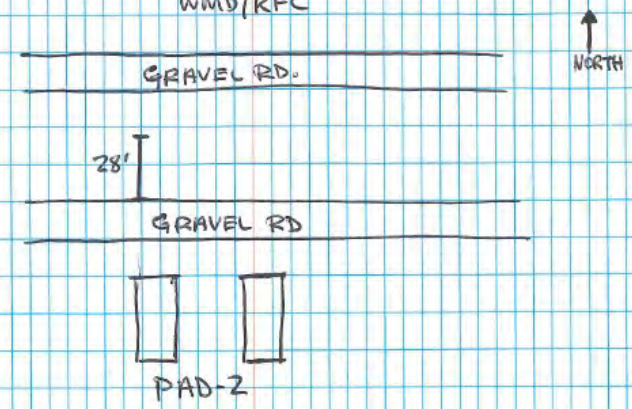


Sample Time (1315)

Samples Collected: (3)5035A/8260C, (1)8270D/DW, (1)6010C, (2)8290A, (1)8330B

OBG/SWMU-13
B03204-215
WMD/KFC

NB-1

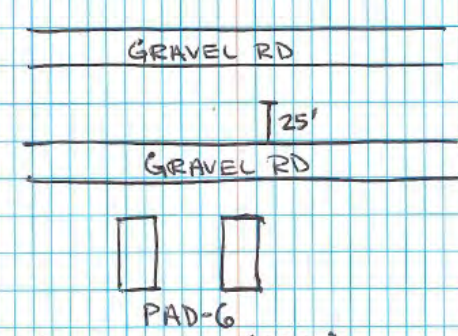


Sample Time (1015)

Samples Collected: (3)5035A/8260C, (1)8270D/DW, ~~(1)6850/DW~~, ~~(1)8330B~~, (1)6010C, (2)8290A, (1)8330B

WMD 8-13-15

NB-2



Sample Time (1230)

Samples Collected: (3)5035A/8260C, (1)8270D/DW, (1)6010C, (2)8290A, (1)8330B

Equipment Blank (Taken from NB-1 trowel)

Sample Time (0715)

Samples Collected: (3)8260C, (2) 8270D, (2)8015C, (4)8290A, (1)6850, (2)8330B

OBG / Unit B
B03204-215
WMD / KFL

Equipment Blank - (Taken from SB-1 Trowel)
Sample Time (1240)
Samples collected: (1) 8260 / 7470

Notes

* All 5035A samples with sodium bisulfate produced effervescence.

Additional Notes 1-11-2016 (WMD)

- 5 (not 3) 8260/5035A sample containers
- Sampling procedures follow SAP specified in the permit with the following exception: No plastic sheeting laid on ground because sampling equipment was not stayed on the ground.
- Sample Alloquot collected from 0-6 inches with dedicated stainless steel tulip bulb sampler.
- Sample alloquot is placed in 1 gallon plastic ziplock bag and homogenized, alloquot then placed into sample containers
- VOC (8260/5035) collected first from ziplock bag using disposable T-handle Sampler.
- Equipment deconned according to the SAP in the Permit.
- See lab results (dry weight) for relative soil moisture.

OBG - Verification
B03204-215
TQE / KFL

General Notes

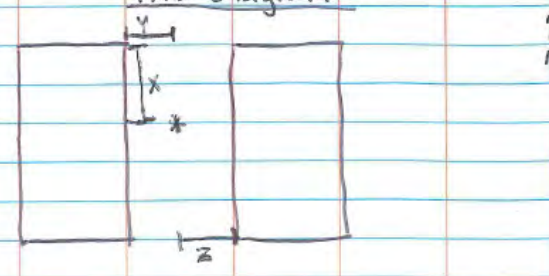
- Weather: Overcast 50°F
- PPE: White flame retardent cover-alls, chemical resistant boots, eye protection, nitrile & neoprene gloves
- Equipment: Deconned dedicated sampling equipment and re-packed sampling trowels, stored in foil and ziplock bags after deconning
  - Decon Water: Collected and disposed of at B.O. treatment plant onsite
  - Decon Materials: Collected, bagged and disposed of at onsite waste area
  - All Samples collected, then stored and transported on ice in coolers
  - Hexavalent Chromium soil samples not collected during this event
  - All Pans located at the south end of each PAD
  - Perchlorate not sampled during this event
  - Refer to diagram for sampling point / location (see page 54)

Additional Notes 1-11-2016 (WMD)

- Sampling procedures follow SAP specified in the permit with the following exception: No plastic sheeting laid on ground because sampling equipment was not stayed on the ground.
- Sample alloquot collected from 0-6 inches with dedicated stainless steel tulip bulb sampler.
- Sample alloquot is placed in 1 gallon plastic ziplock bag and homogenized, alloquot then placed into sample containers
- Equipment deconned according to the SAP in the permit.

OBG - Verification
BOS204-215
TAE/KFL

PAD Diagram



Fence Line
XXXXXXXXXXXXXXXX

River Flow →

PAD-6

x = 9'6" z = 24'6"
y = 11'0"

Sample Time (0800)
Samples Collected: (2) TM - Lead Only

DUP (Taken from PAD-6)

Sample Time (0810)
Samples Collected: (2) TM - Lead only

APPENDIX E

HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS (2005 – 2014)

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

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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
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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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
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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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*																					
11/17/2005	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

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
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

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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
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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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

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
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.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

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.

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
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

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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

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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

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
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

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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
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

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
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
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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*
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.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

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.

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

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.

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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*																					
4/5/2012	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.

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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*																					
4/5/2012	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.

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*																					
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.

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*																					
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.

Draper Aden Associates
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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.

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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

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).

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Abridged data.
Full deliverable
available.

Type I Data Package

Prepared for:

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

Project: RAAP - Radford, VA - HWMU13/Open Burning Ground
Soil and Water Samples
Collected on 08/13/15

SDG# RAE42

GROUP	SAMPLE NUMBERS
1584970	8007412-8007430

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-13-10
AZ Cert. # AZ0780

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

Authorized by: Dana M Kauffman **Date: 09/08/2015**

Dana M. Kauffman
Manager

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

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Sample Reference List for SDG Number RAE42
with a Data Package Type of I

11200 - Draper Aden Associates, Inc.

Project: RAAP - Radford, VA - HWMU13/Open Burning Ground

Lab Sample Number	Lab Sample Code	Client Sample Description
8007412	PAD-1	PAD-1 Grab Soil August 2015 - Annual Soil Monitoring
8007413	PAD-2	PAD-2 Grab Soil August 2015 - Annual Soil Monitoring
8007414	PAD-3	PAD-3 Grab Soil August 2015 - Annual Soil Monitoring
8007415	PAD-4	PAD-4 Grab Soil August 2015 - Annual Soil Monitoring
8007416	PAD-4	PAD-4 MS Grab Soil August 2015 - Annual Soil Monitoring
8007417	PAD-4	PAD-4 MSD Grab Soil August 2015 - Annual Soil Monitoring
8007418	PAD-5	PAD-5 Grab Soil August 2015 - Annual Soil Monitoring
8007419	PAD-6	PAD-6 Grab Soil August 2015 - Annual Soil Monitoring
8007420	PAD-7	PAD-7 Grab Soil August 2015 - Annual Soil Monitoring
8007421	PAD-8	PAD-8 Grab Soil August 2015 - Annual Soil Monitoring
8007422	PAD-X	PAD-X Grab Soil August 2015 - Annual Soil Monitoring
8007423	PADTB	Trip Blank Water August 2015 - Annual Soil Monitoring
8007424	NB--1	NB-1 Grab Soil August 2015 - Annual Soil Monitoring
8007425	NB--2	NB-2 Grab Soil August 2015 - Annual Soil Monitoring
8007426	SB--1	SB-1 Grab Soil August 2015 - Annual Soil Monitoring
8007427	SB--2	SB-2 Grab Soil August 2015 - Annual Soil Monitoring
8007428	BERM1	BERM-1 Grab Soil August 2015 - Annual Soil Monitoring
8007429	POND1	POND-1 Grab Soil August 2015 - Annual Soil Monitoring
8007430	RADEB	EB Water August 2015 - Annual Soil Monitoring

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Sample pH Log

SDG: RAE42

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	Res. Cl. Present?	Corrective Substance	CS Lot #
8007423	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
8007430	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA

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

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01163 GC/MS VOA Water Prep

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

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

11997 VOCs- 5ml Water by 8260C

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

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

11995 VOCs- Solid by 8260C

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

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

11010 8270D BNA Extraction

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

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

10726 SVOA 8270D (microwave)
10461 SVOAs by 8270D in Water

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

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

10813 BNA Soil Microwave APP IX

The sample aliquot is extracted using microwave extraction with 1:1 methylene chloride and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

00111 Moisture
00118 Moisture
00121 Moisture Duplicate

A well-mixed sample is placed in a tared container and dried to a constant weight in an oven at 103-105C. The increase in weight is the total solids.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2540 G-1997

07579 GC/MS-5g Field Preserv.MeOH-NC

The sample is collected and preserved with methanol in the field using vials that were prepared and pre-weighed at the laboratory. The vial preparation consists of adding 5 mls of methanol to a 40-ml vial. Once in the field, 5 +/- 0.5 g of soil is added to the vial and then iced at 4 +/- 2 degree C until the time they are returned to the lab. Upon receipt from the field, the container is re-weighed to determine the exact weight of the soil added to the vial. Since an approximate amount of soil is added to the vials in the field, the dilution factors may vary from sample to sample.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, Method 5035A, Revision 1, July 2002.

02392 GC/MS - Field Preserved NaHSO4

The samples is collected and preserved in the field with sodium bisulfate for low level analysis using vials that were pre-prepared and pre-weighed at the laboratory. The vial preparation consists of adding 5 ml of sodium bisulfate to a 40 ml vial. Once in the field, 5g +/- .5 of soil is added to the vial and then iced at 4 +/- 2 degree C until the time they are returned to the lab. Upon receipt from the field, the vial is re-weighed to determine the exact weight of the soil added to the container with preservative.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, Method 5035A, Revision 1, July 2002.

06176 GC/MS - LL Water Prep

The samples are collected in DI vials in the field. The vial preparation consists of adding 5 mLs of DI water and a stir bar to a 40-ml vial. Once in the field, 5 +/- 0.5 g of soil is to be added to the vial and then iced at 4 +/- 2 degree C until the time they are returned to the lab. Upon receipt from the field, the container is re-weighed to determine the exact weight of the soil added to the vial. The sample is then frozen at -10 to -20 degree C within 48 hours of collection.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, Method 5035A, Revision 1, July 2002.

Analysis Reports / Field Chain of Custody

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

August 31, 2015

Project: RAAP - Radford, VA - HWMU13/Open Burning Ground

Submittal Date: 08/14/2015
Group Number: 1584970
SDG: RAE42
State of Sample Origin: VA

Client Sample Description	Lancaster Labs (LL) #
PAD-1 Grab Soil	8007412
PAD-2 Grab Soil	8007413
PAD-3 Grab Soil	8007414
PAD-4 Grab Soil	8007415
PAD-4 MS Grab Soil	8007416
PAD-4 MSD Grab Soil	8007417
PAD-5 Grab Soil	8007418
PAD-6 Grab Soil	8007419
PAD-7 Grab Soil	8007420
PAD-8 Grab Soil	8007421
PAD-X Grab Soil	8007422
Trip Blank Water	8007423
NB-1 Grab Soil	8007424
NB-2 Grab Soil	8007425
SB-1 Grab Soil	8007426
SB-2 Grab Soil	8007427
BERM-1 Grab Soil	8007428
POND-1 Grab Soil	8007429
EB Water	8007430

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO Draper Aden Associates, Inc. Attn: Kathy Olsen

ELECTRONIC COPY TO Draper Aden Associates, Inc. Attn: Janet Frazier

Respectfully Submitted,

Barbara Weyandt

Barbara A. Weyandt
Specialist

(717) 556-7264

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground
LL Group #: 1584970

General Comments:

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

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

Project specific QC samples are included in this data set

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

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

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

Analysis Specific Comments:

SW-846 8270D, GC/MS Semivolatiles

Sample #s: 8007412, 8007413, 8007418, 8007419, 8007420, 8007422, 8007424, 8007425, 8007426, 8007427, 8007429

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.

Sample #s: 8007415

The recovery for the sample internal standard(s) is outside the QC acceptance limits. The recovery for the internal standard(s) is also outside the QC acceptance limits in the associated matrix spike(s), indicating a matrix effect.

Batch #: 15232SLD026 (Sample number(s): 8007412-8007422, 8007424-8007429 UNSPK: 8007415)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: 3,3'-Dimethylbenzidine

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Hexachloroethane, Naphthalene, Di-n-butylphthalate, Butylbenzylphthalate, Indeno(1,2,3-cd)pyrene, 3,3'-Dimethylbenzidine, Dimethylphthalate, Fluoranthene, bis(2-Ethylhexyl)phthalate, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Acetophenone, NDPA as diphenylamine

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: 4-Methylphenol, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, NDPA as diphenylamine

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 8007415, 8007416, MS

Sample Description: PAD-1 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007412
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 09:35 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-1 SDG#: RAE42-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.004	0.85
11995	Benzyl Chloride	100-44-7	N.D.	0.0009	0.004	0.85
11995	Bromomethane	74-83-9	N.D.	0.002	0.004	0.85
11995	Carbon Tetrachloride	56-23-5	N.D.	0.0009	0.004	0.85
11995	Chlorobenzene	108-90-7	N.D.	0.0009	0.004	0.85
11995	Chloroform	67-66-3	N.D.	0.0009	0.004	0.85
11995	Chloromethane	74-87-3	N.D.	0.002	0.004	0.85
11995	1,2-Dichloroethane	107-06-2	N.D.	0.0009	0.004	0.85
11995	1,1-Dichloroethene	75-35-4	N.D.	0.0009	0.004	0.85
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.004	0.85
11995	Tetrachloroethene	127-18-4	N.D.	0.0009	0.004	0.85
11995	Toluene	108-88-3	N.D.	0.0009	0.004	0.85
11995	Trichloroethene	79-01-6	N.D.	0.0009	0.004	0.85
11995	Vinyl Chloride	75-01-4	N.D.	0.0009	0.004	0.85
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.017	0.034	1
10726	Benzo(a)anthracene	56-55-3	N.D.	0.003	0.017	1
10726	Benzo(a)pyrene	50-32-8	N.D.	0.003	0.017	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	0.003	0.017	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	0.003	0.017	1
10726	Butylbenzylphthalate	85-68-7	N.D.	0.069	0.17	1
10726	Di-n-butylphthalate	84-74-2	1.0	0.069	0.17	1
10726	2-Chlorophenol	95-57-8	N.D.	0.017	0.034	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.003	0.017	1
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.017	0.034	1
10726	Diethylphthalate	84-66-2	0.094 J	0.069	0.17	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.51	1.0	1
10726	Dimethylphthalate	131-11-3	N.D.	0.069	0.17	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.091 J	0.069	0.17	1
10726	Fluoranthene	206-44-0	N.D.	0.003	0.017	1
10726	Hexachloroethane	67-72-1	N.D.	0.034	0.17	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.003	0.017	1
10726	4-Methylphenol	106-44-5	N.D.	0.017	0.034	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	N.D.	0.003	0.017	1
10726	NDPA as diphenylamine	n.a.	0.13 J	0.034	0.17	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.17	0.51	1
10726	Phenol	108-95-2	N.D.	0.017	0.034	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect.
The reported data is from the initial analysis of the sample.

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

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Analysis Report

Sample Description: PAD-1 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007412
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 09:35 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-1 SDG#: RAE42-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	3.7	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 12:08	Angela D Sneeringer	0.85
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:01	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:01	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 09:35	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/23/2015 19:50	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-2 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007413
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:05 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-2 SDG#: RAE42-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.		0.0004	0.004	0.83
11995	Benzyl Chloride	100-44-7	N.D.		0.0009	0.004	0.83
11995	Bromomethane	74-83-9	N.D.		0.002	0.004	0.83
11995	Carbon Tetrachloride	56-23-5	N.D.		0.0009	0.004	0.83
11995	Chlorobenzene	108-90-7	N.D.		0.0009	0.004	0.83
11995	Chloroform	67-66-3	N.D.		0.0009	0.004	0.83
11995	Chloromethane	74-87-3	N.D.		0.002	0.004	0.83
11995	1,2-Dichloroethane	107-06-2	N.D.		0.0009	0.004	0.83
11995	1,1-Dichloroethene	75-35-4	N.D.		0.0009	0.004	0.83
11995	Methylene Chloride	75-09-2	N.D.		0.002	0.004	0.83
11995	Tetrachloroethene	127-18-4	N.D.		0.0009	0.004	0.83
11995	Toluene	108-88-3	N.D.		0.0009	0.004	0.83
11995	Trichloroethene	79-01-6	N.D.		0.0009	0.004	0.83
11995	Vinyl Chloride	75-01-4	N.D.		0.0009	0.004	0.83
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**		**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.		0.018	0.036	1
10726	Benzo(a)anthracene	56-55-3	N.D.		0.004	0.018	1
10726	Benzo(a)pyrene	50-32-8	N.D.		0.004	0.018	1
10726	Benzo(b)fluoranthene	205-99-2	0.008	J	0.004	0.018	1
10726	Benzo(k)fluoranthene	207-08-9	0.004	J	0.004	0.018	1
10726	Butylbenzylphthalate	85-68-7	N.D.		0.072	0.18	1
10726	Di-n-butylphthalate	84-74-2	0.28		0.072	0.18	1
10726	2-Chlorophenol	95-57-8	N.D.		0.018	0.036	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.		0.004	0.018	1
10726	2,4-Dichlorophenol	120-83-2	N.D.		0.018	0.036	1
10726	Diethylphthalate	84-66-2	0.10	J	0.072	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.		0.54	1.1	1
10726	Dimethylphthalate	131-11-3	N.D.		0.072	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.082	J	0.072	0.18	1
10726	Fluoranthene	206-44-0	0.004	J	0.004	0.018	1
10726	Hexachloroethane	67-72-1	N.D.		0.036	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.004	0.018	1
10726	4-Methylphenol	106-44-5	N.D.		0.018	0.036	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10726	Naphthalene	91-20-3	N.D.		0.004	0.018	1
10726	NDPA as diphenylamine	n.a.	0.077	J	0.036	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10726	4-Nitrophenol	100-02-7	N.D.		0.18	0.54	1
10726	Phenol	108-95-2	N.D.		0.018	0.036	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect.
The reported data is from the initial analysis of the sample.

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

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Analysis Report

Sample Description: PAD-2 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007413
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:05 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-2 SDG#: RAE42-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	7.0	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 12:31	Angela D Sneeringer	0.83
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Larry E Bevins	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 10:05	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/23/2015 20:14	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-3 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007414
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:40 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-3 SDG#: RAE42-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.004	0.72
11995	Benzyl Chloride	100-44-7	N.D.	0.0009	0.003	0.72
11995	Bromomethane	74-83-9	N.D.	0.002	0.004	0.72
11995	Carbon Tetrachloride	56-23-5	N.D.	0.0009	0.004	0.72
11995	Chlorobenzene	108-90-7	N.D.	0.0009	0.004	0.72
11995	Chloroform	67-66-3	N.D.	0.0009	0.004	0.72
11995	Chloromethane	74-87-3	N.D.	0.002	0.004	0.72
11995	1,2-Dichloroethane	107-06-2	N.D.	0.0009	0.004	0.72
11995	1,1-Dichloroethene	75-35-4	N.D.	0.0009	0.004	0.72
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.004	0.72
11995	Tetrachloroethene	127-18-4	N.D.	0.0009	0.004	0.72
11995	Toluene	108-88-3	N.D.	0.0009	0.004	0.72
11995	Trichloroethene	79-01-6	N.D.	0.0009	0.004	0.72
11995	Vinyl Chloride	75-01-4	N.D.	0.0009	0.004	0.72
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.020	0.040	1
10726	Benzo(a)anthracene	56-55-3	N.D.	0.004	0.021	1
10726	Benzo(a)pyrene	50-32-8	N.D.	0.004	0.021	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	0.004	0.021	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	0.004	0.021	1
10726	Butylbenzylphthalate	85-68-7	N.D.	0.081	0.20	1
10726	Di-n-butylphthalate	84-74-2	N.D.	0.081	0.20	1
10726	2-Chlorophenol	95-57-8	N.D.	0.020	0.040	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	0.021	1
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.020	0.040	1
10726	Diethylphthalate	84-66-2	N.D.	0.081	0.20	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.61	1.2	1
10726	Dimethylphthalate	131-11-3	N.D.	0.081	0.20	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.081	0.21	1
10726	Fluoranthene	206-44-0	N.D.	0.004	0.021	1
10726	Hexachloroethane	67-72-1	N.D.	0.040	0.20	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.004	0.021	1
10726	4-Methylphenol	106-44-5	N.D.	0.020	0.040	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	N.D.	0.004	0.021	1
10726	NDPA as diphenylamine	n.a.	N.D.	0.040	0.20	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.20	0.61	1
10726	Phenol	108-95-2	N.D.	0.020	0.040	1
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	17.6	0.50	0.50	1

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

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Analysis Report

Sample Description: PAD-3 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007414
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:40 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-3 SDG#: RAE42-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 12:53	Angela D Sneeringer	0.72
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:01	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 10:40	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/23/2015 20:39	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-4 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007415
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-4 SDG#: RAE42-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**		**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.		0.0005	0.005	0.86
11995	Benzyl Chloride	100-44-7	N.D.		0.0009	0.004	0.86
11995	Bromomethane	74-83-9	N.D.		0.002	0.005	0.86
11995	Carbon Tetrachloride	56-23-5	N.D.		0.0009	0.005	0.86
11995	Chlorobenzene	108-90-7	N.D.		0.0009	0.005	0.86
11995	Chloroform	67-66-3	N.D.		0.0009	0.005	0.86
11995	Chloromethane	74-87-3	N.D.		0.002	0.005	0.86
11995	1,2-Dichloroethane	107-06-2	N.D.		0.0009	0.005	0.86
11995	1,1-Dichloroethene	75-35-4	N.D.		0.0009	0.005	0.86
11995	Methylene Chloride	75-09-2	N.D.		0.002	0.005	0.86
11995	Tetrachloroethene	127-18-4	N.D.		0.0009	0.005	0.86
11995	Toluene	108-88-3	N.D.		0.0009	0.005	0.86
11995	Trichloroethene	79-01-6	N.D.		0.0009	0.005	0.86
11995	Vinyl Chloride	75-01-4	N.D.		0.0009	0.005	0.86
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**		**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.		0.018	0.037	1
10726	Benzo(a)anthracene	56-55-3	0.005	J	0.004	0.019	1
10726	Benzo(a)pyrene	50-32-8	0.008	J	0.004	0.019	1
10726	Benzo(b)fluoranthene	205-99-2	0.014	J	0.004	0.019	1
10726	Benzo(k)fluoranthene	207-08-9	0.012	J	0.004	0.019	1
10726	Butylbenzylphthalate	85-68-7	N.D.		0.073	0.18	1
10726	Di-n-butylphthalate	84-74-2	1.8		0.073	0.18	1
10726	2-Chlorophenol	95-57-8	N.D.		0.018	0.037	1
10726	Dibenz(a,h)anthracene	53-70-3	0.009	J	0.004	0.019	1
10726	2,4-Dichlorophenol	120-83-2	N.D.		0.018	0.037	1
10726	Diethylphthalate	84-66-2	0.25		0.073	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.		0.55	1.1	1
10726	Dimethylphthalate	131-11-3	N.D.		0.073	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.084	J	0.073	0.19	1
10726	Fluoranthene	206-44-0	0.01	J	0.004	0.019	1
10726	Hexachloroethane	67-72-1	N.D.		0.037	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	0.01	J	0.004	0.019	1
10726	4-Methylphenol	106-44-5	N.D.		0.018	0.037	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10726	Naphthalene	91-20-3	0.020		0.004	0.019	1
10726	NDPA as diphenylamine	n.a.	0.33		0.037	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10726	4-Nitrophenol	100-02-7	N.D.		0.18	0.55	1
10726	Phenol	108-95-2	N.D.		0.018	0.037	1

The recovery for the sample internal standard(s) is outside the QC acceptance limits. The recovery for the internal standard(s) is also outside the QC acceptance limits in the associated matrix spike(s), indicating a matrix effect.

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

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Analysis Report

Sample Description: PAD-4 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007415
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-4 SDG#: RAE42-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	9.1	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 13:16	Angela D Sneeringer	0.86
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 10:55	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 19:13	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-4 MS Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007416
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-4 SDG#: RAE42-04MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.019	0.0005	0.005	0.88
11995	Benzyl Chloride	100-44-7	0.016	0.001	0.004	0.88
11995	Bromomethane	74-83-9	0.019	0.002	0.005	0.88
11995	Carbon Tetrachloride	56-23-5	0.024	0.001	0.005	0.88
11995	Chlorobenzene	108-90-7	0.018	0.001	0.005	0.88
11995	Chloroform	67-66-3	0.021	0.001	0.005	0.88
11995	Chloromethane	74-87-3	0.017	0.002	0.005	0.88
11995	1,2-Dichloroethane	107-06-2	0.021	0.001	0.005	0.88
11995	1,1-Dichloroethene	75-35-4	0.021	0.001	0.005	0.88
11995	Methylene Chloride	75-09-2	0.020	0.002	0.005	0.88
11995	Tetrachloroethene	127-18-4	0.021	0.001	0.005	0.88
11995	Toluene	108-88-3	0.019	0.001	0.005	0.88
11995	Trichloroethene	79-01-6	0.020	0.001	0.005	0.88
11995	Vinyl Chloride	75-01-4	0.018	0.001	0.005	0.88
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	2.4	0.018	0.036	1
10726	Benzo(a)anthracene	56-55-3	2.2	0.004	0.019	1
10726	Benzo(a)pyrene	50-32-8	1.8	0.004	0.019	1
10726	Benzo(b)fluoranthene	205-99-2	2.3	0.004	0.019	1
10726	Benzo(k)fluoranthene	207-08-9	2.4	0.004	0.019	1
10726	Butylbenzylphthalate	85-68-7	1.9	0.073	0.18	1
10726	Di-n-butylphthalate	84-74-2	2.2	0.073	0.18	1
10726	2-Chlorophenol	95-57-8	1.8	0.018	0.036	1
10726	Dibenz(a,h)anthracene	53-70-3	2.4	0.004	0.019	1
10726	2,4-Dichlorophenol	120-83-2	1.9	0.018	0.036	1
10726	Diethylphthalate	84-66-2	1.9	0.073	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.55	1.1	1
10726	Dimethylphthalate	131-11-3	2.2	0.073	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	2.5	0.073	0.19	1
10726	Fluoranthene	206-44-0	1.2	0.004	0.019	1
10726	Hexachloroethane	67-72-1	2.4	0.036	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	2.2	0.004	0.019	1
10726	4-Methylphenol	106-44-5	2.2	0.018	0.036	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	2.5	0.004	0.019	1
10726	NDPA as diphenylamine	n.a.	1.1	0.036	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	1.5	0.18	0.55	1
10726	Phenol	108-95-2	1.7	0.018	0.036	1
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00118	Moisture	n.a.	9.1	0.50	0.50	1

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

Sample Description: PAD-4 MS Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007416
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-4 SDG#: RAE42-04MS

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 13:44	Angela D Sneeringer	0.88
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 10:55	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 19:38	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00118	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-4 MSD Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007417
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-4 SDG#: RAE42-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	0.018	0.0005	0.005	0.88
11995	Benzyl Chloride	100-44-7	0.015	0.001	0.004	0.88
11995	Bromomethane	74-83-9	0.019	0.002	0.005	0.88
11995	Carbon Tetrachloride	56-23-5	0.023	0.001	0.005	0.88
11995	Chlorobenzene	108-90-7	0.018	0.001	0.005	0.88
11995	Chloroform	67-66-3	0.020	0.001	0.005	0.88
11995	Chloromethane	74-87-3	0.017	0.002	0.005	0.88
11995	1,2-Dichloroethane	107-06-2	0.020	0.001	0.005	0.88
11995	1,1-Dichloroethene	75-35-4	0.020	0.001	0.005	0.88
11995	Methylene Chloride	75-09-2	0.019	0.002	0.005	0.88
11995	Tetrachloroethene	127-18-4	0.020	0.001	0.005	0.88
11995	Toluene	108-88-3	0.019	0.001	0.005	0.88
11995	Trichloroethene	79-01-6	0.019	0.001	0.005	0.88
11995	Vinyl Chloride	75-01-4	0.018	0.001	0.005	0.88
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	1.8	0.018	0.037	1
10726	Benzo(a)anthracene	56-55-3	1.9	0.004	0.019	1
10726	Benzo(a)pyrene	50-32-8	1.7	0.004	0.019	1
10726	Benzo(b)fluoranthene	205-99-2	2.1	0.004	0.019	1
10726	Benzo(k)fluoranthene	207-08-9	2.2	0.004	0.019	1
10726	Butylbenzylphthalate	85-68-7	2.4	0.073	0.18	1
10726	Di-n-butylphthalate	84-74-2	2.3	0.073	0.18	1
10726	2-Chlorophenol	95-57-8	1.9	0.018	0.037	1
10726	Dibenz(a,h)anthracene	53-70-3	1.6	0.004	0.019	1
10726	2,4-Dichlorophenol	120-83-2	1.9	0.018	0.037	1
10726	Diethylphthalate	84-66-2	2.0	0.073	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.55	1.1	1
10726	Dimethylphthalate	131-11-3	1.9	0.073	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	2.3	0.073	0.19	1
10726	Fluoranthene	206-44-0	1.5	0.004	0.019	1
10726	Hexachloroethane	67-72-1	2.2	0.037	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	1.5	0.004	0.019	1
10726	4-Methylphenol	106-44-5	1.6	0.018	0.037	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	2.4	0.004	0.019	1
10726	NDPA as diphenylamine	n.a.	2.3	0.037	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	1.7	0.18	0.55	1
10726	Phenol	108-95-2	1.7	0.018	0.037	1
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00118	Moisture	n.a.	9.1	0.50	0.50	1
00121	Moisture Duplicate	n.a.	9.5	0.50	0.50	1

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

Sample Description: PAD-4 MSD Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007417
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-4 SDG#: RAE42-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 14:07	Angela D Sneeringer	0.88
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 10:55	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 20:02	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00118	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1
00121	Moisture Duplicate	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-5 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007418
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:10 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-5 SDG#: RAE42-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.005	0.94
11995	Benzyl Chloride	100-44-7	N.D.	0.001	0.004	0.94
11995	Bromomethane	74-83-9	N.D.	0.002	0.005	0.94
11995	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.005	0.94
11995	Chlorobenzene	108-90-7	N.D.	0.001	0.005	0.94
11995	Chloroform	67-66-3	N.D.	0.001	0.005	0.94
11995	Chloromethane	74-87-3	N.D.	0.002	0.005	0.94
11995	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.005	0.94
11995	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.005	0.94
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.005	0.94
11995	Tetrachloroethene	127-18-4	N.D.	0.001	0.005	0.94
11995	Toluene	108-88-3	N.D.	0.001	0.005	0.94
11995	Trichloroethene	79-01-6	N.D.	0.001	0.005	0.94
11995	Vinyl Chloride	75-01-4	N.D.	0.001	0.005	0.94
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.018	0.035	1
10726	Benzo(a)anthracene	56-55-3	N.D.	0.004	0.018	1
10726	Benzo(a)pyrene	50-32-8	N.D.	0.004	0.018	1
10726	Benzo(b)fluoranthene	205-99-2	0.009 J	0.004	0.018	1
10726	Benzo(k)fluoranthene	207-08-9	0.010 J	0.004	0.018	1
10726	Butylbenzylphthalate	85-68-7	N.D.	0.070	0.18	1
10726	Di-n-butylphthalate	84-74-2	0.99	0.070	0.18	1
10726	2-Chlorophenol	95-57-8	N.D.	0.018	0.035	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	0.018	1
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.018	0.035	1
10726	Diethylphthalate	84-66-2	0.27	0.070	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.53	1.1	1
10726	Dimethylphthalate	131-11-3	N.D.	0.070	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.070	0.18	1
10726	Fluoranthene	206-44-0	0.005 J	0.004	0.018	1
10726	Hexachloroethane	67-72-1	N.D.	0.035	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.004	0.018	1
10726	4-Methylphenol	106-44-5	N.D.	0.018	0.035	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	0.008 J	0.004	0.018	1
10726	NDPA as diphenylamine	n.a.	0.16 J	0.035	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.18	0.53	1
10726	Phenol	108-95-2	N.D.	0.018	0.035	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.

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

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Analysis Report

Sample Description: PAD-5 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007418
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:10 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-5 SDG#: RAE42-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	5.5	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 14:30	Angela D Sneeringer	0.94
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 11:10	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 14:43	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-6 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007419
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:35 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-6 SDG#: RAE42-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.005	0.84
11995	Benzyl Chloride	100-44-7	N.D.	0.0009	0.004	0.84
11995	Bromomethane	74-83-9	N.D.	0.002	0.005	0.84
11995	Carbon Tetrachloride	56-23-5	N.D.	0.0009	0.005	0.84
11995	Chlorobenzene	108-90-7	N.D.	0.0009	0.005	0.84
11995	Chloroform	67-66-3	N.D.	0.0009	0.005	0.84
11995	Chloromethane	74-87-3	N.D.	0.002	0.005	0.84
11995	1,2-Dichloroethane	107-06-2	N.D.	0.0009	0.005	0.84
11995	1,1-Dichloroethene	75-35-4	N.D.	0.0009	0.005	0.84
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.005	0.84
11995	Tetrachloroethene	127-18-4	N.D.	0.0009	0.005	0.84
11995	Toluene	108-88-3	N.D.	0.0009	0.005	0.84
11995	Trichloroethene	79-01-6	N.D.	0.0009	0.005	0.84
11995	Vinyl Chloride	75-01-4	N.D.	0.0009	0.005	0.84
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.092	0.18	5
10726	Benzo(a)anthracene	56-55-3	N.D.	0.018	0.094	5
10726	Benzo(a)pyrene	50-32-8	0.039 J	0.018	0.094	5
10726	Benzo(b)fluoranthene	205-99-2	0.070 J	0.018	0.094	5
10726	Benzo(k)fluoranthene	207-08-9	0.027 J	0.018	0.094	5
10726	Butylbenzylphthalate	85-68-7	N.D.	0.37	0.92	5
10726	Di-n-butylphthalate	84-74-2	16	0.37	0.92	5
10726	2-Chlorophenol	95-57-8	N.D.	0.092	0.18	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.018	0.094	5
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.092	0.18	5
10726	Diethylphthalate	84-66-2	4.1	0.37	0.92	5
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	2.8	5.5	5
10726	Dimethylphthalate	131-11-3	N.D.	0.37	0.92	5
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.37	0.94	5
10726	Fluoranthene	206-44-0	0.023 J	0.018	0.094	5
10726	Hexachloroethane	67-72-1	N.D.	0.18	0.92	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	0.031 J	0.018	0.094	5
10726	4-Methylphenol	106-44-5	N.D.	0.092	0.18	5
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	N.D.	0.018	0.094	5
10726	NDPA as diphenylamine	n.a.	0.75 J	0.18	0.92	5
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.92	2.8	5
10726	Phenol	108-95-2	N.D.	0.092	0.18	5

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect.
The reported data is from the initial analysis of the sample.

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

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Analysis Report

Sample Description: PAD-6 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007419
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:35 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-6 SDG#: RAE42-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	9.8	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 16:25	Angela D Sneeringer	0.84
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 11:35	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/25/2015 01:43	William H Saadeh	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-7 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007420
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:50 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-7 SDG#: RAE42-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.004	0.79
11995	Benzyl Chloride	100-44-7	N.D.	0.0009	0.003	0.79
11995	Bromomethane	74-83-9	N.D.	0.002	0.004	0.79
11995	Carbon Tetrachloride	56-23-5	N.D.	0.0009	0.004	0.79
11995	Chlorobenzene	108-90-7	N.D.	0.0009	0.004	0.79
11995	Chloroform	67-66-3	N.D.	0.0009	0.004	0.79
11995	Chloromethane	74-87-3	N.D.	0.002	0.004	0.79
11995	1,2-Dichloroethane	107-06-2	N.D.	0.0009	0.004	0.79
11995	1,1-Dichloroethene	75-35-4	N.D.	0.0009	0.004	0.79
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.004	0.79
11995	Tetrachloroethene	127-18-4	N.D.	0.0009	0.004	0.79
11995	Toluene	108-88-3	N.D.	0.0009	0.004	0.79
11995	Trichloroethene	79-01-6	N.D.	0.0009	0.004	0.79
11995	Vinyl Chloride	75-01-4	N.D.	0.0009	0.004	0.79
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.018	0.036	1
10726	Benzo(a)anthracene	56-55-3	N.D.	0.004	0.018	1
10726	Benzo(a)pyrene	50-32-8	0.006 J	0.004	0.018	1
10726	Benzo(b)fluoranthene	205-99-2	0.011 J	0.004	0.018	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	0.004	0.018	1
10726	Butylbenzylphthalate	85-68-7	N.D.	0.072	0.18	1
10726	Di-n-butylphthalate	84-74-2	0.53	0.072	0.18	1
10726	2-Chlorophenol	95-57-8	N.D.	0.018	0.036	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	0.018	1
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.018	0.036	1
10726	Diethylphthalate	84-66-2	0.78	0.072	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.54	1.1	1
10726	Dimethylphthalate	131-11-3	N.D.	0.072	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.072	0.18	1
10726	Fluoranthene	206-44-0	N.D.	0.004	0.018	1
10726	Hexachloroethane	67-72-1	N.D.	0.036	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	0.009 J	0.004	0.018	1
10726	4-Methylphenol	106-44-5	N.D.	0.018	0.036	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	0.007 J	0.004	0.018	1
10726	NDPA as diphenylamine	n.a.	0.27	0.036	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.18	0.54	1
10726	Phenol	108-95-2	N.D.	0.018	0.036	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:
The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect.
The reported data is from the initial analysis of the sample.

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

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Analysis Report

Sample Description: PAD-7 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007420
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:50 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-7 SDG#: RAE42-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	7.5	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 16:48	Angela D Sneeringer	0.79
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 11:50	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/23/2015 23:06	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-8 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007421
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 12:10 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-8 SDG#: RAE42-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
11995	Benzyl Chloride	100-44-7	N.D.	0.001	0.004	1.02
11995	Bromomethane	74-83-9	N.D.	0.002	0.005	1.02
11995	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.005	1.02
11995	Chlorobenzene	108-90-7	N.D.	0.001	0.005	1.02
11995	Chloroform	67-66-3	N.D.	0.001	0.005	1.02
11995	Chloromethane	74-87-3	N.D.	0.002	0.005	1.02
11995	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.005	1.02
11995	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.005	1.02
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.005	1.02
11995	Tetrachloroethene	127-18-4	N.D.	0.001	0.005	1.02
11995	Toluene	108-88-3	N.D.	0.001	0.005	1.02
11995	Trichloroethene	79-01-6	N.D.	0.001	0.005	1.02
11995	Vinyl Chloride	75-01-4	N.D.	0.001	0.005	1.02
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.018	0.035	1
10726	Benzo(a)anthracene	56-55-3	N.D.	0.004	0.018	1
10726	Benzo(a)pyrene	50-32-8	N.D.	0.004	0.018	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	0.004	0.018	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	0.004	0.018	1
10726	Butylbenzylphthalate	85-68-7	N.D.	0.071	0.18	1
10726	Di-n-butylphthalate	84-74-2	2.5	0.071	0.18	1
10726	2-Chlorophenol	95-57-8	N.D.	0.018	0.035	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	0.018	1
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.018	0.035	1
10726	Diethylphthalate	84-66-2	N.D.	0.071	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.53	1.1	1
10726	Dimethylphthalate	131-11-3	N.D.	0.071	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.071	0.18	1
10726	Fluoranthene	206-44-0	N.D.	0.004	0.018	1
10726	Hexachloroethane	67-72-1	N.D.	0.035	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.004	0.018	1
10726	4-Methylphenol	106-44-5	N.D.	0.018	0.035	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	0.004 J	0.004	0.018	1
10726	NDPA as diphenylamine	n.a.	0.18	0.035	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.18	0.53	1
10726	Phenol	108-95-2	N.D.	0.018	0.035	1
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	6.3	0.50	0.50	1

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

Sample Description: PAD-8 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007421
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 12:10 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-8 SDG#: RAE42-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 15:38	Angela D Sneeringer	1.02
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:02	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 12:10	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/23/2015 23:30	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: PAD-X Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007422
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-X SDG#: RAE42-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Benzene	71-43-2	N.D.	0.0004	0.004	0.81
11995	Benzyl Chloride	100-44-7	N.D.	0.0009	0.004	0.81
11995	Bromomethane	74-83-9	N.D.	0.002	0.004	0.81
11995	Carbon Tetrachloride	56-23-5	N.D.	0.0009	0.004	0.81
11995	Chlorobenzene	108-90-7	N.D.	0.0009	0.004	0.81
11995	Chloroform	67-66-3	N.D.	0.0009	0.004	0.81
11995	Chloromethane	74-87-3	N.D.	0.002	0.004	0.81
11995	1,2-Dichloroethane	107-06-2	N.D.	0.0009	0.004	0.81
11995	1,1-Dichloroethene	75-35-4	N.D.	0.0009	0.004	0.81
11995	Methylene Chloride	75-09-2	N.D.	0.002	0.004	0.81
11995	Tetrachloroethene	127-18-4	N.D.	0.0009	0.004	0.81
11995	Toluene	108-88-3	N.D.	0.0009	0.004	0.81
11995	Trichloroethene	79-01-6	N.D.	0.0009	0.004	0.81
11995	Vinyl Chloride	75-01-4	N.D.	0.0009	0.004	0.81
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Acetophenone	98-86-2	N.D.	0.018	0.037	1
10726	Benzo(a)anthracene	56-55-3	N.D.	0.004	0.019	1
10726	Benzo(a)pyrene	50-32-8	N.D.	0.004	0.019	1
10726	Benzo(b)fluoranthene	205-99-2	0.007 J	0.004	0.019	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	0.004	0.019	1
10726	Butylbenzylphthalate	85-68-7	N.D.	0.073	0.18	1
10726	Di-n-butylphthalate	84-74-2	3.1	0.073	0.18	1
10726	2-Chlorophenol	95-57-8	N.D.	0.018	0.037	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	0.004	0.019	1
10726	2,4-Dichlorophenol	120-83-2	N.D.	0.018	0.037	1
10726	Diethylphthalate	84-66-2	0.15 J	0.073	0.18	1
10726	3,3'-Dimethylbenzidine	119-93-7	N.D.	0.55	1.1	1
10726	Dimethylphthalate	131-11-3	N.D.	0.073	0.18	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.073	0.19	1
10726	Fluoranthene	206-44-0	N.D.	0.004	0.019	1
10726	Hexachloroethane	67-72-1	N.D.	0.037	0.18	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.004	0.019	1
10726	4-Methylphenol	106-44-5	N.D.	0.018	0.037	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10726	Naphthalene	91-20-3	0.006 J	0.004	0.019	1
10726	NDPA as diphenylamine	n.a.	0.17 J	0.037	0.18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10726	4-Nitrophenol	100-02-7	N.D.	0.18	0.55	1
10726	Phenol	108-95-2	N.D.	0.018	0.037	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.

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

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Analysis Report

Sample Description: PAD-X Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007422
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 11:55 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PAD-X SDG#: RAE42-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 2540 G-1997**		%	%	%	
00111	Moisture	n.a.	9.4	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	B152361AA	08/24/2015 16:03	Angela D Sneeringer	0.81
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:02	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:01	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 11:55	Client Supplied	1
10726	22 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/23/2015 23:55	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

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Analysis Report

Sample Description: Trip Blank Water
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # WW 8007423
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

PADTB SDG#: RAE42-10TB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l	ug/l	ug/l	
11997	Benzene	71-43-2	N.D.	0.5	5	1
11997	Benzyl Chloride	100-44-7	N.D.	1	5	1
11997	Bromomethane	74-83-9	N.D.	1	5	1
11997	Carbon Tetrachloride	56-23-5	N.D.	1	5	1
11997	Chlorobenzene	108-90-7	N.D.	0.8	5	1
11997	Chloroform	67-66-3	N.D.	0.8	5	1
11997	Chloromethane	74-87-3	N.D.	1	5	1
11997	1,2-Dichloroethane	107-06-2	N.D.	1	5	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.8	5	1
11997	Methylene Chloride	75-09-2	N.D.	2	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.8	5	1
11997	Toluene	108-88-3	N.D.	0.7	5	1
11997	Trichloroethene	79-01-6	N.D.	1	5	1
11997	Vinyl Chloride	75-01-4	N.D.	0.5	2	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	Y152372AA	08/25/2015 10:33	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y152372AA	08/25/2015 10:33	Amanda K Richards	1

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

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Analysis Report

Sample Description: NB-1 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007424
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 10:15 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

NB--1 SDG#: RAE42-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Bromomethane	74-83-9	N.D.	0.003	0.007	1.05
11995	Trichloroethene	79-01-6	N.D.	0.001	0.007	1.05
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Di-n-butylphthalate	84-74-2	0.91	0.086	0.21	1
10726	Diethylphthalate	84-66-2	1.4	0.086	0.21	1
10726	Dimethylphthalate	131-11-3	2.6	0.086	0.21	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.91	0.086	0.22	1
10726	NDPA as diphenylamine	n.a.	0.18 J	0.043	0.21	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
	The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.					
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	22.5	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	2 VOCs 8260C compounds-RAAP	SW-846 8260C	1	A152371AA	08/25/2015 22:07	Christopher G Torres	1.05
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201522638564	08/13/2015 10:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201522638564	08/13/2015 10:15	Client Supplied	1
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:54	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:54	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 10:15	Client Supplied	1
10726	5 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 16:21	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

Sample Description: NB-2 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007425
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 12:30 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

NB--2 SDG#: RAE42-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Bromomethane	74-83-9	0.003 J	0.002	0.006	0.98
11995	Trichloroethene	79-01-6	N.D.	0.001	0.006	0.98
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Di-n-butylphthalate	84-74-2	0.25	0.081	0.20	1
10726	Diethylphthalate	84-66-2	0.54	0.081	0.20	1
10726	Dimethylphthalate	131-11-3	1.2	0.081	0.20	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.21 J	0.081	0.21	1
10726	NDPA as diphenylamine	n.a.	0.048 J	0.041	0.20	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
	The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.					
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	19.3	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	2 VOCs 8260C compounds-RAAP	SW-846 8260C	1	A152371AA	08/25/2015 19:51	Christopher G Torres	0.98
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201522638564	08/13/2015 12:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201522638564	08/13/2015 12:30	Client Supplied	1
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:54	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:54	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 12:30	Client Supplied	1
10726	5 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 16:46	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

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Analysis Report

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Sample Description: SB-1 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007426
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 13:00 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

SB--1 SDG#: RAE42-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Bromomethane	74-83-9	N.D.	0.003	0.008	1.22
11995	Trichloroethene	79-01-6	N.D.	0.002	0.008	1.22
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Di-n-butylphthalate	84-74-2	N.D.	0.089	0.22	1
10726	Diethylphthalate	84-66-2	N.D.	0.089	0.22	1
10726	Dimethylphthalate	131-11-3	N.D.	0.089	0.22	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.089	0.23	1
10726	NDPA as diphenylamine	n.a.	N.D.	0.044	0.22	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
	The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.					
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	25.8	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	2 VOCs 8260C compounds-RAAP	SW-846 8260C	1	A152371AA	08/25/2015 22:29	Christopher G Torres	1.22
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201522638564	08/13/2015 13:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201522638564	08/13/2015 13:00	Client Supplied	1
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:54	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:54	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 13:00	Client Supplied	1
10726	5 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 17:35	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

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Analysis Report

Sample Description: SB-2 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007427
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 13:15 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

SB--2 SDG#: RAE42-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Bromomethane	74-83-9	N.D.	0.003	0.007	1
11995	Trichloroethene	79-01-6	N.D.	0.001	0.007	1
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Di-n-butylphthalate	84-74-2	0.24	0.091	0.23	1
10726	Diethylphthalate	84-66-2	0.27	0.091	0.23	1
10726	Dimethylphthalate	131-11-3	N.D.	0.091	0.23	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.45	0.091	0.23	1
10726	NDPA as diphenylamine	n.a.	N.D.	0.045	0.23	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
	The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.					
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	27.0	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	2 VOCs 8260C compounds-RAAP	SW-846 8260C	1	A152371AA	08/25/2015 20:36	Christopher G Torres	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201522638564	08/13/2015 13:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201522638564	08/13/2015 13:15	Client Supplied	1
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:54	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:54	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 13:15	Client Supplied	1
10726	5 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 17:59	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

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Analysis Report

Sample Description: BERM-1 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007428
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 09:00 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

BERM1 SDG#: RAE42-15

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**		**mg/kg**	**mg/kg**	
11995	Bromomethane	74-83-9	N.D.		0.002	0.005	0.93
11995	Trichloroethene	79-01-6	N.D.		0.001	0.005	0.93
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**		**mg/kg**	**mg/kg**	
10726	Di-n-butylphthalate	84-74-2	0.38		0.070	0.17	1
10726	Diethylphthalate	84-66-2	0.15	J	0.070	0.17	1
10726	Dimethylphthalate	131-11-3	N.D.		0.070	0.17	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	0.10	J	0.070	0.18	1
10726	NDPA as diphenylamine	n.a.	0.51		0.035	0.17	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
Wet Chemistry	**SM 2540 G-1997**		**%**		**%**	**%**	
00111	Moisture	n.a.	5.2		0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	2 VOCs 8260C compounds-RAAP	SW-846 8260C	1	A152371AA	08/25/2015 20:59	Christopher G Torres	0.93
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201522638564	08/13/2015 09:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201522638564	08/13/2015 09:00	Client Supplied	1
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:54	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:54	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 09:00	Client Supplied	1
10726	5 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 18:24	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: POND-1 Grab Soil
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # SW 8007429
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 09:20 by WMD

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

POND1 SDG#: RAE42-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	
11995	Bromomethane	74-83-9	N.D.	0.002	0.005	0.97
11995	Trichloroethene	79-01-6	N.D.	0.001	0.005	0.97
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	
10726	Di-n-butylphthalate	84-74-2	0.076 J	0.069	0.17	1
10726	Diethylphthalate	84-66-2	0.42	0.069	0.17	1
10726	Dimethylphthalate	131-11-3	N.D.	0.069	0.17	1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.069	0.18	1
10726	NDPA as diphenylamine	n.a.	0.089 J	0.034	0.17	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
	The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.					
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	4.2	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	2 VOCs 8260C compounds-RAAP	SW-846 8260C	1	A152371AA	08/25/2015 21:21	Christopher G Torres	0.97
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201522638564	08/13/2015 09:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201522638564	08/13/2015 09:20	Client Supplied	1
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201522638564	08/14/2015 19:54	Mitchell R Washel	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201522638564	08/14/2015 19:54	Mitchell R Washel	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201522638564	08/13/2015 09:20	Client Supplied	1
10726	5 SVOC 8270D compounds-RAAP	SW-846 8270D	1	15232SLD026	08/24/2015 18:49	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	15232SLD026	08/20/2015 16:40	Benjamin J Rosenberger	1
00111	Moisture	SM 2540 G-1997	1	15232820006A	08/20/2015 21:18	Scott W Freisher	1

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

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Analysis Report

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Sample Description: EB Water
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # WW 8007430
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 07:15 by KC

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

RADEB SDG#: RAE42-17EB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Benzene	71-43-2	N.D.	0.5	5	1
11997	Benzyl Chloride	100-44-7	N.D.	1	5	1
11997	Bromomethane	74-83-9	N.D.	1	5	1
11997	Carbon Tetrachloride	56-23-5	N.D.	1	5	1
11997	Chlorobenzene	108-90-7	N.D.	0.8	5	1
11997	Chloroform	67-66-3	N.D.	0.8	5	1
11997	Chloromethane	74-87-3	N.D.	1	5	1
11997	1,2-Dichloroethane	107-06-2	N.D.	1	5	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.8	5	1
11997	Methylene Chloride	75-09-2	N.D.	2	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.8	5	1
11997	Toluene	108-88-3	N.D.	0.7	5	1
11997	Trichloroethene	79-01-6	N.D.	1	5	1
11997	Vinyl Chloride	75-01-4	N.D.	0.5	2	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
10461	Acetophenone	98-86-2	N.D.	2	5	1
10461	Benzo(a)anthracene	56-55-3	N.D.	1	5	1
10461	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
10461	Benzo(b)fluoranthene	205-99-2	N.D.	1	5	1
10461	Benzo(k)fluoranthene	207-08-9	N.D.	1	5	1
10461	Butylbenzylphthalate	85-68-7	N.D.	2	5	1
10461	Di-n-butylphthalate	84-74-2	N.D.	2	5	1
10461	2-Chlorophenol	95-57-8	N.D.	1	5	1
10461	Dibenz(a,h)anthracene	53-70-3	N.D.	1	5	1
10461	2,4-Dichlorophenol	120-83-2	N.D.	1	5	1
10461	Diethylphthalate	84-66-2	N.D.	2	5	1
10461	3,3'-Dimethylbenzidine	119-93-7	N.D.	25	76	1
10461	Dimethylphthalate	131-11-3	N.D.	2	5	1
10461	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2	5	1
10461	Fluoranthene	206-44-0	N.D.	1	5	1
10461	Hexachloroethane	67-72-1	N.D.	1	5	1
10461	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	5	1
10461	4-Methylphenol	106-44-5	N.D.	2	5	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10461	Naphthalene	91-20-3	N.D.	0.1	2	1
10461	NDPA as diphenylamine	n.a.	N.D.	2	5	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10461	4-Nitrophenol	100-02-7	N.D.	10	30	1
10461	Phenol	108-95-2	N.D.	1	5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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

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Analysis Report

Sample Description: EB Water
August 2015 - Annual Soil Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LL Sample # WW 8007430
LL Group # 1584970
Account # 11200

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 08/13/2015 07:15 by KC

Submitted: 08/14/2015 09:40
Reported: 08/31/2015 13:01

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

RADEB SDG#: RAE42-17EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	14 VOC 8260C compounds-RAAP	SW-846 8260C	1	Y152372AA	08/25/2015 10:54	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y152372AA	08/25/2015 10:54	Amanda K Richards	1
10461	22 SVOCs 8270D compounds-RAAP	SW-846 8270D	1	15231WAX026	08/25/2015 11:57	Linda M Hartenstine	1
11010	8270D BNA Extraction	SW-846 3510C	1	15231WAX026	08/20/2015 09:00	David S Schrum	1

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

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1584970
Reported: 08/31/2015 13:01

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A152371AA	Sample number(s): 8007424-8007429								
Bromomethane	N.D.	0.002	0.005	mg/kg	83	81	21-192	1	30
Trichloroethene	N.D.	0.001	0.005	mg/kg	95	93	80-120	2	30
Batch number: B152361AA	Sample number(s): 8007412-8007422								
Benzene	N.D.	0.0005	0.005	mg/kg	92	91	80-120	1	30
Benzyl Chloride	N.D.	0.001	0.004	mg/kg	86	81	59-120	6	30
Bromomethane	N.D.	0.002	0.005	mg/kg	94	91	21-192	3	30
Carbon Tetrachloride	N.D.	0.001	0.005	mg/kg	112	109	69-130	3	30
Chlorobenzene	N.D.	0.001	0.005	mg/kg	91	90	80-120	1	30
Chloroform	N.D.	0.001	0.005	mg/kg	100	97	80-120	3	30
Chloromethane	N.D.	0.002	0.005	mg/kg	81	81	56-120	1	30
1,2-Dichloroethane	N.D.	0.001	0.005	mg/kg	102	98	77-130	4	30
1,1-Dichloroethene	N.D.	0.001	0.005	mg/kg	99	96	73-129	4	30
Methylene Chloride	N.D.	0.002	0.005	mg/kg	94	92	76-122	3	30
Tetrachloroethene	N.D.	0.001	0.005	mg/kg	97	95	78-120	2	30
Toluene	N.D.	0.001	0.005	mg/kg	91	90	80-120	2	30
Trichloroethene	N.D.	0.001	0.005	mg/kg	98	96	80-120	2	30
Vinyl Chloride	N.D.	0.001	0.005	mg/kg	87	86	59-120	1	30
Batch number: Y152372AA	Sample number(s): 8007423,8007430								
Benzene	N.D.	0.5	5	ug/l	99	98	78-120	1	30
Benzyl Chloride	N.D.	1.	5	ug/l	83	82	51-120	2	30
Bromomethane	N.D.	1.	5	ug/l	72	71	53-130	2	30
Carbon Tetrachloride	N.D.	1.	5	ug/l	95	95	74-130	0	30
Chlorobenzene	N.D.	0.8	5	ug/l	97	96	80-120	1	30
Chloroform	N.D.	0.8	5	ug/l	98	97	80-120	0	30
Chloromethane	N.D.	1.	5	ug/l	92	88	65-129	4	30
1,2-Dichloroethane	N.D.	1.	5	ug/l	97	96	72-127	1	30
1,1-Dichloroethene	N.D.	0.8	5	ug/l	87	87	76-124	1	30
Methylene Chloride	N.D.	2.	5	ug/l	87	87	77-121	1	30
Tetrachloroethene	N.D.	0.8	5	ug/l	93	94	80-122	0	30
Toluene	N.D.	0.7	5	ug/l	99	99	80-120	0	30
Trichloroethene	N.D.	1.	5	ug/l	100	100	80-120	0	30
Vinyl Chloride	N.D.	0.5	2	ug/l	78	79	69-120	1	30
Batch number: 15231WAX026	Sample number(s): 8007430								
Acetophenone	N.D.	2.	5	ug/l	90		73-111		
Benzo(a)anthracene	N.D.	1.	5	ug/l	102		76-122		
Benzo(a)pyrene	N.D.	0.1	0.5	ug/l	98		73-115		
Benzo(b)fluoranthene	N.D.	1.	5	ug/l	104		75-123		
Benzo(k)fluoranthene	N.D.	1.	5	ug/l	99		74-119		
Butylbenzylphthalate	N.D.	2.	5	ug/l	93		56-124		
Di-n-butylphthalate	N.D.	2.	5	ug/l	88		67-116		

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

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1584970
Reported: 08/31/2015 13:01

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Chlorophenol	N.D.	1.	5	ug/l	87		61-114		
Dibenz(a,h)anthracene	N.D.	1.	5	ug/l	102		72-127		
2,4-Dichlorophenol	N.D.	1.	5	ug/l	95		74-114		
Diethylphthalate	N.D.	2.	5	ug/l	94		47-124		
3,3'-Dimethylbenzidine	N.D.	25.	75	ug/l	39		10-82		
Dimethylphthalate	N.D.	2.	5	ug/l	94		43-128		
bis(2-Ethylhexyl)phthalate	N.D.	2.	5	ug/l	96		67-121		
Fluoranthene	N.D.	1.	5	ug/l	93		76-117		
Hexachloroethane	N.D.	1.	5	ug/l	75		31-111		
Indeno(1,2,3-cd)pyrene	N.D.	1.	5	ug/l	97		70-121		
4-Methylphenol	N.D.	2.	5	ug/l	81		44-114		
Naphthalene	N.D.	0.1	2	ug/l	90		69-109		
NDPA as diphenylamine	N.D.	2.	5	ug/l	81		76-116		
4-Nitrophenol	N.D.	10.	30	ug/l	64		11-88		
Phenol	N.D.	1.	5	ug/l	54		13-89		
Batch number: 15232SLD026	Sample number(s): 8007412-8007422,8007424-8007429								
Acetophenone	N.D.	0.017	0.033	mg/kg	94		74-116		
Benzo(a)anthracene	N.D.	0.003	0.017	mg/kg	100		76-119		
Benzo(a)pyrene	N.D.	0.003	0.017	mg/kg	101		85-117		
Benzo(b)fluoranthene	N.D.	0.003	0.017	mg/kg	106		78-129		
Benzo(k)fluoranthene	N.D.	0.003	0.017	mg/kg	98		79-120		
Butylbenzylphthalate	N.D.	0.067	0.17	mg/kg	101		80-118		
Di-n-butylphthalate	N.D.	0.067	0.17	mg/kg	107		84-120		
2-Chlorophenol	N.D.	0.017	0.033	mg/kg	105		85-123		
Dibenz(a,h)anthracene	N.D.	0.003	0.017	mg/kg	108		81-123		
2,4-Dichlorophenol	N.D.	0.017	0.033	mg/kg	110		81-123		
Diethylphthalate	N.D.	0.067	0.17	mg/kg	99		81-118		
3,3'-Dimethylbenzidine	N.D.	0.50	1.0	mg/kg	102*		17-78		
Dimethylphthalate	N.D.	0.067	0.17	mg/kg	99		82-113		
bis(2-Ethylhexyl)phthalate	N.D.	0.067	0.17	mg/kg	101		81-121		
Fluoranthene	N.D.	0.003	0.017	mg/kg	101		81-117		
Hexachloroethane	N.D.	0.033	0.17	mg/kg	96		78-114		
Indeno(1,2,3-cd)pyrene	N.D.	0.003	0.017	mg/kg	106		81-118		
4-Methylphenol	N.D.	0.017	0.033	mg/kg	99		75-119		
Naphthalene	N.D.	0.003	0.017	mg/kg	105		83-112		
NDPA as diphenylamine	N.D.	0.033	0.17	mg/kg	112		70-130		
4-Nitrophenol	N.D.	0.17	0.50	mg/kg	102		60-129		
Phenol	N.D.	0.017	0.033	mg/kg	105		73-122		
Batch number: 15232820006A	Sample number(s): 8007412-8007422,8007424-8007429								
Moisture					100		99-101		
Moisture					100		99-101		
Moisture Duplicate					100		99-101		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B152361AA	Sample number(s): 8007412-8007422 UNSPK: 8007415								

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

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1584970
Reported: 08/31/2015 13:01

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzene	100	95	80-120	4	30				
Benzyl Chloride	85	79	59-120	7	30				
Bromomethane	99	97	21-192	0	30				
Carbon Tetrachloride	126	120	69-130	3	30				
Chlorobenzene	94	90	80-120	3	30				
Chloroform	108	103	80-120	3	30				
Chloromethane	88	87	56-120	0	30				
1,2-Dichloroethane	109	104	77-130	4	30				
1,1-Dichloroethene	110	105	73-129	4	30				
Methylene Chloride	102	97	76-122	4	30				
Tetrachloroethene	107	101	78-120	5	30				
Toluene	100	95	80-120	4	30				
Trichloroethene	105	99	80-120	6	30				
Vinyl Chloride	95	94	59-120	1	30				
Batch number: 15231WAX026	Sample number(s): 8007430 UNSPK: P31WXUS								
Acetophenone	96	96	73-111	1	30				
Benzo(a)anthracene	108	109	76-122	3	30				
Benzo(a)pyrene	103	108	73-115	7	30				
Benzo(b)fluoranthene	108	110	75-123	4	30				
Benzo(k)fluoranthene	104	108	74-119	6	30				
Butylbenzylphthalate	93	94	56-124	3	30				
Di-n-butylphthalate	92	93	67-116	2	30				
2-Chlorophenol	93	92	61-114	0	30				
Dibenz(a,h)anthracene	109	110	72-127	3	30				
2,4-Dichlorophenol	100	101	74-114	2	30				
Diethylphthalate	96	92	47-124	2	30				
3,3'-Dimethylbenzidine	36	40	10-82	13	30				
Dimethylphthalate	86	85	43-128	1	30				
bis(2-Ethylhexyl)phthalate	102	104	67-121	4	30				
Fluoranthene	99	100	76-117	3	30				
Hexachloroethane	84	82	31-111	1	30				
Indeno(1,2,3-cd)pyrene	104	105	70-121	2	30				
4-Methylphenol	86	85	44-114	0	30				
Naphthalene	95	95	69-109	2	30				
NDPA as diphenylamine	89	90	76-116	2	30				
4-Nitrophenol	84	85	11-88	3	30				
Phenol	64	64	13-89	1	30				
Batch number: 15232SLD026	Sample number(s): 8007412-8007422,8007424-8007429 UNSPK: 8007415								
Acetophenone	131*	97	74-116	29	30				
Benzo(a)anthracene	119	105	76-119	11	30				
Benzo(a)pyrene	101	92	85-117	8	30				
Benzo(b)fluoranthene	127	116	78-129	8	30				
Benzo(k)fluoranthene	129*	118	79-120	8	30				
Butylbenzylphthalate	102	130*	80-118	25	30				
Di-n-butylphthalate	21*	29*	84-120	7	30				
2-Chlorophenol	99	104	85-123	6	30				
Dibenz(a,h)anthracene	131*	87	81-123	39*	30				
2,4-Dichlorophenol	102	102	81-123	1	30				
Diethylphthalate	92	97	81-118	6	30				
3,3'-Dimethylbenzidine	0*	0*	17-78	0	30				

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

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1584970
Reported: 08/31/2015 13:01

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dimethylphthalate	119*	104	82-113	13	30				
bis(2-Ethylhexyl)phthalate	134*	121	81-121	9	30				
Fluoranthene	68*	81	81-117	17	30				
Hexachloroethane	133*	117*	78-114	11	30				
Indeno(1,2,3-cd)pyrene	119*	80*	81-118	38*	30				
4-Methylphenol	119	86	75-119	32*	30				
Naphthalene	137*	133*	83-112	2	30				
NDPA as diphenylamine	42*	105	70-130	69*	30				
4-Nitrophenol	83	93	60-129	12	30				
Phenol	93	93	73-122	1	30				

Batch number: 15232820006A Sample number(s): 8007412-8007422,8007424-8007429 BKG: 8007415

Moisture	9.1	9.5	4	5
Moisture	9.1	9.5	4	5
Moisture Duplicate	9.1	9.5	4	5

Surrogate Quality Control

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

Analysis Name: 2 VOCs 8260C compounds-RAAP
Batch number: A152371AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8007424	102	104	100	90
8007425	101	101	102	87
8007426	102	100	106	79
8007427	104	103	113	74
8007428	106	105	99	86
8007429	106	107	96	82
Blank	101	98	99	88
LCS	100	99	100	96
LCSD	100	101	101	95
Limits:	50-141	54-135	52-141	50-131

Analysis Name: 14 VOC 8260C compounds-RAAP
Batch number: B152361AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8007412	109	111	98	96
8007413	109	106	101	92
8007414	110	110	97	96
8007415	109	101	103	87
8007416	111	108	104	94
8007417	107	102	103	97
8007418	109	104	100	92
8007419	112	109	97	95
8007420	111	106	97	91
8007421	111	106	96	91
8007422	113	109	99	91

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

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1584970
Reported: 08/31/2015 13:01

Surrogate Quality Control

Blank	107	104	98	95
LCS	109	109	101	101
LCSD	107	103	100	100
MS	111	108	104	94
MSD	107	102	103	97
Limits:	50-141	54-135	52-141	50-131

Analysis Name: 14 VOC 8260C compounds-RAAP
Batch number: Y152372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8007423	98	100	100	99
8007430	98	102	100	99
Blank	98	100	100	100
LCS	99	103	101	101
LCSD	98	102	100	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 22 SVOCs 8270D compounds-RAAP
Batch number: 15231WAX026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8007430	46	63	114	87	88	68
Blank	50	66	118	87	87	96
LCS	51	65	118	86	88	89
MS	61	77	122	90	92	93
MSD	61	75	121	91	93	95
Limits:	10-85	10-107	22-150	46-128	61-112	43-131

Analysis Name: 22 SVOC 8270D compounds-RAAP
Batch number: 15232SLD026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8007412	97	78	78	99	109	106
8007413	96	91	90	100	112	106
8007414	92	93	99	99	107	103
8007415	64	63	72	118	159*	110
8007416	93	97	91	118	130*	120
8007417	97	98	102	106	117	105
8007418	85	58	74	99	116	106
8007419	84	84	94	94	117	101
8007420	82	52	88	100	109	103
8007421	90	96	99	101	110	100
8007422	88	65	92	103	115	107
8007424				99	107	105
8007425				98	78	106
8007426				102	111	104
8007427				100	114	108
8007428				94	111	98
8007429				103	116	101
Blank	88	94	118	89	101	92
LCS	100	103	121	99	113	101
MS	93	97	91	118	130*	120
MSD	97	98	102	106	117	105
Limits:	58-122	49-134	36-142	54-123	63-117	59-129

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

11200 1584970 8007412-30

Laboratory: Eurofins Lancaster Laboratories 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300

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 2015 - Annual Soil Monitoring
DAA JN: B03204-215
Lab JN:

Project Specific (PS) or Batch (B) QC:
Sample Collection for Project Complete? YES
Carrier: 12-754-02X-Y0-4179-1883
Tracking Number: 11-11-11-11-4264-4478
Invoice 11-11-11-11-4048-5957
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 (< 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

Box 4 - Sample Type	G	G	G	G	G					
Box 3 - Filtered/Unfiltered				U						
Required pH of Sample				<2						
Box 2 - Preservative	G	G	DI H20	A	G					
Box 5 - Sample Container Type	2-40ml V	1-40ml V	2-40 ml V	2-40 ml V	1-4 oz CG					

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	VOAs 5035/8260C w/ sodium bisulfate	VOAs 5035/8260C w/ methanol	VOAs 5030C/8260C (backup) *	VOAs 5030C/8260C	SVOCs 8270D	Dry Weight					
PAD-1	08/13	0935	S	5	X	X	X		X	X					
PAD-2		1005	S	5	X	X	X		X	X					
PAD-3		1040	S	5	X	X	X		X	X					
PAD-4		1055	S	5	X	X	X		X	X					
PAD-4ms		1055	S	5	X	X	X		X	X					
PAD-4msd		1055	S	5	X	X	X		X	X					
PAD-5		1110	S	5	X	X	X		X	X					
PAD-6		1135	S	5	X	X	X		X	X					
PAD-7		1150	S	5	X	X	X		X	X					
PAD-8		1210	S	5	X	X	X		X	X					
PAD-X		1155	S	5	X	X	X		X	X					
Trip Blank		—	T	2				X							

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS. 8260C/5035-2 VOA with sodium bisulfate and 1-VOA with methanol.
3. * Use 5030C/8260C DI as a backup if effervescense is observed.
4. Report in mg/kg. VELAP Accreditation required.
5. Special pricing - $129/VOC; $200/SVOC.

WMD 8-13-15

* All 5035A samples preserved with sodium bisulfate produced effervescence.

use for MS / MSD...

1 TRIP Blank required FOR EACH DAY

Clients Special Instructions: Level 1 with edd.
Received by lab in Good Condition X Yes ____ No Custody Seal Intact X Yes ____ No Temperature upon arrival 0.3-0.1 Received on Ice X Yes ____ No
Describe problems, if any:

Sampler Name Print: Will Mason-Deese	Date: 8-13-15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name Print: Ken Coddington	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

1/4 8/14/15

11200 1584970 8007412-30

Laboratory: Eurofins Lancaster Laboratories 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300

QC 9/12/15

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** *YES* UPS: 1Z-75Y-02X-Y0-4179-1883 **Carrier:** **Tracking Number:** " - " - " - " - 4264-4478

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

Box 2: Preservative
A HCL, E NaOH
B HNO_3, F ZnAc
C H_2SO_4, G Other (< 6 deg c)
D $Na_2S_2O_3$, 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

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

Box 4 - Sample Type					G	G	G	G	G						
Box 3 - Filtered/Unfiltered								U							
Required pH of Sample								<2							
Box 2 - Preservative					G	G	DI H20	A	G						
Box 5 - Sample Container Type					2-40ml V	1-40ml V	2-40 ml V	2-40 ml V	1-4 oz CG						
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**VOAs 5035/8260C w/ sodium biasulfate**	**VOAs 5035/8260C w/ methanol**	**VOAs 5030C/8260C (backup) ***	**VOAs 5030C/8260C**	**SVOCs 8270D**	**Dry Weight**					
PAD-1	08/13	0935	S	5	X	X	X		X	X					
PAD-2		1005	S	5	X	X	X		X	X					
PAD-3		1040	S	5	X	X	X		X	X					
PAD-4		1055	S	5	X	X	X		X	X					use for MS / MSD...
PAD-4ms		1055	S	5	X	X	X		X	X					
PAD-4msd		1055	S	5	X	X	X		X	X					
PAD-5		1110	S	5	X	X	X		X	X					
PAD-6		1135	S	5	X	X	X		X	X					
PAD-7		1150	S	5	X	X	X		X	X					
PAD-8		1210	S	5	X	X	X		X	X					
PAD-X		1155	S	5	X	X	X		X	X					
Trip Blank		—	T	2				X							1 TRIP Blank required FOR EACH DAY

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS. 8260C/5035-2 VOA with sodium bisulfate and 1-VOA with methanol.
3. * Use 5030C/8260C DI as a backup if effervescense is observed.
4. Report in mg/kg. VELAP Accreditation required.
5. Special pricing - $129/VOC; $200/SVOC.

lients Special Instructions: Level 1 with edd.

Received by lab in Good Condition X Yes ____ No Custody Seal Intact X Yes ____ No Temperature upon arrival 0.3 0.7 Received on Ice X Yes ____ No

Describe problems, if any:

Sampler Name (Print): Will Mason-Deese	Date: 8-13-15	#1 Relinquished by (Signature): [signature]	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: [signature]	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Ken Coddington	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature): [signature]	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

1/4 JK 9/14/15

Laboratory: ELLE, LLC, 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300 11200 1584970 8007412-30

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**			**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** *YES* **Carrier:** **Tracking Number:**

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

Box 2: Preservative
A HCL, E NaOH, B HNO_3, F ZnAc, C H_2SO_4, G Other (<6 deg c), D $Na_2S_2O_3$, 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*

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	VOAs 5035A/8260C	VOAs 5035A/8260C	SVOCs 8270D	DRY WEIGHT	VOAs 5030C/8260C (backup) *	VOAs 5030C/8260C			
Box 4 - Sample Type					G	G	G	G	G	G			
Box 3 - Filtered/Unfiltered										U			
Required pH of Sample										<2			
Box 2 - Preservative					G	G	H	H	H20	A			
Box 5 - Sample Container Type					2-40ml V	1-40ml V	1-4 oz CG		2-40 ml V	2-40 ml VOA CG			
NB-1	8/13	1015	S	6 5	X	X	X	X	X				
NB-2		1230	S	6 5	X	X	X	X	X				
SB-1		1300	S	6 5	X	X	X	X	X				
SB-2		1315	S	6 5	X	X	X	X	X				
BERM-1		0900	S	6 5	X	X	X	X	X				
POND-1		0920	S	6 5	X	X	X	X	X				
Trip Blank	8/13	—	T	2						X			

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS. 8260C/5035-2 VOA with sodium bisulfate and 1-VOA with methanol.
3. * Use backup if effervescence is observed.

1 Trip blank per day. Delete if not required.

Clients Special Instructions: level 1 with edd.

Received by lab in Good Condition X Yes ____ No Custody Seal Intact X Yes ____ No Temperature upon arrival 0.3-0.7 Received on Ice X Yes ____ No
Describe problems, if any:

Sampler Name (Print): KEN GODDINGTON	Date: 8/13/15	#1 Relinquished by (Signature):	Date:	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name:	Time:	Company Name:	Time:	
Sampler Name (Print): William Mason Deere	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

2/4 8/14/15

1584970

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event
Based on revised permit effective June 12, 2014

ANALYTICAL METHOD: 8260C/5035A (SOIL) 8260C/5030 (Trip Blank)
TYPE METHOD: GCMS
CLASS: VOLATILE

Analyte List for: All PAD Samples and Trip Blank

No.	Constituent	CASRN
1	1,2-Dichloroethane	107-06-2
2	Benzene	71-43-2
3	Benzyl chloride	100-44-7
4	Carbon tetrachloride	56-23-5
5	Chlorobenzene	108-90-7
6	Chloroform	67-66-3
7	Methyl bromide (Bromomethane)	74-83-9
8	Methyl chloride (Chloromethane)	74-87-3
9	Methylene chloride	75-09-2
10	Tetrachloroethylene	127-18-4
11	Toluene	108-88-3
12	Trichloroethylene	79-01-6
13	Vinyl chloride	75-01-4
14	Vinylidene chloride (1,1-Dichloroethene)	75-35-4

1

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

No.	ANALYTE	CAS RN
1.	Trichloroethene	79-01-6
2.	Bromomethane	74-83-9

1

\\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

1584970

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event
Based on revised permit effective June 12, 2014

ANALYTICAL METHOD: 8270D/3546
TYPE METHOD: GCMS
CLASS: SEMIVOLATILE

Analyte List for: All PAD Samples

No.	Constituent	CASRN
1	2,4-Dichlorophenol	120-83-2
2	2-Chlorophenol	95-57-8
3	3-Methylphenol	108-39-4
4	4-Methylphenol	106-44-5
5	3,3-Dimethylbenzidine	119-93-7
6	4-Nitrophenol	100-02-7
7	Acetophenone	98-86-2
8	Benz(a)anthracene	56-55-3
9	Benzo(a)pyrene	50-32-8
10	Benzo(b)fluoranthene	205-99-2
11	Benzo(k)fluoranthene	207-08-9
12	bis(2-Ethylhexyl)phthalate	117-81-7
13	Butylbenzylphthalate	85-68-7
14	Dibenz(a,h)anthracene	53-70-3
15	Diethylphthalate	84-66-2
16	Dimethyl phthalate	131-11-3
17	Di-n-butyl phthalate	84-74-2
18	Diphenylamine	122-39-4
19	Fluoranthene	206-44-0
20	Hexachloroethane	67-72-1
21	Indeno(1,2,3-cd)pyrene	193-39-5
22	Naphthalene	91-20-3
23	Phenol	108-95-2

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

No.	ANALYTE	CAS RN
1.	Bis(2-ethylhexyl) phthalate	117-81-7
2.	Diethylphthalate	84-66-2
3.	Dimethylphthalate	131-11-3
4.	Di-n-butylphthalate	84-74-2
5.	N-nitrosodiphenylamine/diphenylamine	122-39-4

\\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

Laboratory: Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike, Lancaster, PA 17605-2425/Barb Weyandt, Manager, 717-656-2300 11200 1584970 8007412-30 ok JLK 8/10/15

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 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** **Sample Collection for Project Complete?** YES UPS: **Carrier:** 12-75Y-02X-Y0-4179-1883 **Tracking Number:** 12-75Y-02X-Y0-4264-4478

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

Box 4: Sample Type
G Grab, C Composite

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

Box 4 - Sample Type	G	G
Box 3 - Filtered/Unfiltered	U	U
Required pH of Sample	<2	
Box 2 - Preservative	A	
Box 5 - Sample Container Type	3-40 ml V	2-250 ML AG

GENERAL NOTES:
1. Estimated results required.
VELAP Accreditation required.
Special pricing - $129/VOC; $200/SVOC.

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	VOAs 5030C/8260C	SVOCs 8270D										
~~EQ BLK~~ EB	8/13	0715	W	5	X	X										pre-sampling equipment blank

8/13/15

lients Special Instructions: Level 1 with edd.

Received by lab in Good Condition X Yes ____ No Custody Seal Intact X Yes ____ No Temperature upon arrival 0.3-0.7 Received on Ice X Yes ____ No

Describe problems, if any:

Sampler Name (Print): KEN CODDINGTON	Date: 8/13/15	#1 Relinquished by (Signature): [signature]	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: [signature]	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason-Deese	Date: 8/13/15	#1 Received by (Signature):	Date:	#2 Received by (Signature): [signature]	Date: 8/14/15	30 DYS ORG/6 MTHS INORG
Sampler Signature: [signature]	Time: 0630	Company Name:	Time:	Company Name: ELLE	Time: 0940	

(2) OK to report w/ annual soil event. Separate data package not required. JLK 8/10/15

1/3 [initials]

1584970

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:) 8260C/5030C
TYPE METHOD: GCMS
CLASS: VOLATILE

No.	Constituent	CASRN
1	1,2-Dichloroethane	107-06-2
2	Benzene	71-43-2
3	Benzyl chloride	100-44-7
4	Carbon tetrachloride	56-23-5
5	Chlorobenzene	108-90-7
6	Chloroform	67-66-3
7	Methyl bromide (Bromomethane)	74-83-9
8	Methyl chloride (Chloromethane)	74-87-3
9	Methylene chloride	75-09-2
10	Tetrachloroethylene	127-18-4
11	Toluene	108-88-3
12	Trichloroethylene	79-01-6
13	Vinyl chloride	75-01-4
14	Vinylidene chloride (1,1-Dichloroethene)	75-35-4

VELAP

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1584970

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

3/3

ANALYTICAL METHOD: 8270D
TYPE METHOD: GCMS
CLASS: SEMIVOLATILE

No.	Constituent	CASRN
1	2,4-Dichlorophenol	120-83-2
2	2-Chlorophenol	95-57-8
3	3-Methylphenol	108-39-4
4	4-Methylphenol	106-44-5
5	3,3-Dimethylbenzidine	119-93-7
6	4-Nitrophenol	100-02-7
7	Acetophenone	98-86-2
8	Benz(a)anthracene	56-55-3
9	Benzo(a)pyrene	50-32-8
10	Benzo(b)fluoranthene	205-99-2
11	Benzo(k)fluoranthene	207-08-9
12	bis(2-Ethylhexyl)phthalate	117-81-7
13	Butylbenzylphthalate	85-68-7
14	Dibenz(a,h)anthracene	53-70-3
15	Diethylphthalate	84-66-2
16	Dimethyl phthalate	131-11-3
17	Di-n-butyl phthalate	84-74-2
18	Diphenylamine	122-39-4
19	Fluoranthene	206-44-0
20	Hexachloroethane	67-72-1
21	Indeno(1,2,3-cd)pyrene	193-39-5
22	Naphthalene	91-20-3
23	Phenol	108-95-2

VBLAP ✓

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eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 97080

Group Number(s):

Client: Draper Aden

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	08/14/2015 9:40
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	VA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Patrick Engle (3472) at 15:43 on 08/14/2015

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.7	DT	Wet	Y	Bagged	N
2	DT121	0.6	DT	Wet	Y	Bagged	N
3	DT121	0.3	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-2425
T : 717-656-2300
F : 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Microbac

Laboratory Report Number: L15080781

Abridged data.
Full deliverable available.

Janet Frazier
Draper Aden Associates
2206 South Main Street
Blacksburg, VA 24060

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Michelle Taylor – Client Services Specialist
(740) 373-4071
Michelle.Taylor@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on August 26 2015

David E. Vandenberg

David Vandenberg – Managing Director

State of Origin: VA
Accrediting Authority: Common Wealth of Virginia ID:460187
QAPP: Microbac OVD

Microbac

Lab Report #: L15080781
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00112937	I	3.0		1Z2373010198535451	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	NA
11	Were pH ranges acceptable? (voa's excluded)	NA
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac

Lab Report #: L15080781
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
PAD-1	L15080781-01	08/13/2015 09:35	08/14/2015 10:18
PAD-2	L15080781-02	08/13/2015 10:05	08/14/2015 10:18
PAD-3	L15080781-03	08/13/2015 10:40	08/14/2015 10:18
PAD-4	L15080781-04	08/13/2015 10:55	08/14/2015 10:18
PAD-4MS	L15080781-05	08/13/2015 10:55	08/14/2015 10:18
PAD-4MSD	L15080781-06	08/13/2015 10:55	08/14/2015 10:18
PAD-5	L15080781-07	08/13/2015 11:10	08/14/2015 10:18
PAD-6	L15080781-08	08/13/2015 11:35	08/14/2015 10:18
PAD-7	L15080781-09	08/13/2015 11:50	08/14/2015 10:18
PAD-8	L15080781-10	08/13/2015 12:10	08/14/2015 10:18
PAD-X	L15080781-11	08/13/2015 11:55	08/14/2015 10:18

Microbac REPORT L15080781
PREPARED FOR Draper Aden Associates
WORK ID:

1.0 Summary Data 5
1.1 Narratives 6
1.2 Certificate of Analysis 11
2.0 Full Sample Data Package 37
2.1 General Chromatography Data 180
2.1.1 6850 LC/MS Data 39
2.1.1.1 Summary Data 40
2.1.1.2 QC Summary Data 52
2.1.1.3 Sample Data 111
2.1.1.4 Standards Data 134
2.1.1.5 Raw QC Data 175
2.1 Semivolatiles Data 180
2.1.2 Explosives (8330B) 181
2.1.2.1 Summary Data 182
2.1.2.2 QC Summary Data 200
2.1.2.3 Sample Data 236
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2.1.2.5 Raw QC Data 414
2.2 General Chemistry Data 425
2.2.1 Percent Solids Data 426
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1.0 Summary Data

1.1 Narratives

Login Number: L15080781
Department: General Chromatography
Analyst: John W. Richards Jr.

METHOD

Analysis SW-846 6850

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

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

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

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

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

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 102923
Approved By: Wade DeLong

Login Number: L15080781
Department: General Chromatography
Analyst: Eric Lawson

METHOD

Analysis SW-846 8330

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: Recoveries out of range were observed for the following analytes: Tetryl. This is a poor performing analyte. Please see the applicable QC report for a detailed presentation of the failures.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: Recoveries and/or RPDs failed for five analytes due to sample matrix interference in the MS/MSD. Nitroglycerin failed due to the presence of Nitroglycerin in the reference sample. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: Samples 01, 04, 07-09 and 11 were analyzed at dilutions to be within calibration range. All sample results were confirmed by diode array detection.

Surrogates: All acceptance criteria were met. The surrogate summary form for the samples references an incorrect calibration date; however the values are correct.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peakcompletely.

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

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene andbenzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

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

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

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 103107
Approved By: Wade DeLong

1.2 Certificate of Analysis

Microbac

Lab Report #: L15080781
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Certificate of Analysis

Sample #:	L15080781-01	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-1	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 20:07
Collect Date:	08/13/2015 09:35	**Dilution:**	1	**File ID:**	1LM.LM31414
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	96.2

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00203	0.00101

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-01	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-1	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 12:52
Collect Date:	08/13/2015 09:35	**Dilution:**	1	**File ID:**	5L015537.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	96.2

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.254	0.102
1,3-Dinitrobenzene	99-65-0		ND	0.254	0.102
2,4,6-Trinitrotoluene	118-96-7		ND	0.254	0.102
2,4-Dinitrotoluene	121-14-2		ND	0.254	0.102
2,6-Dinitrotoluene	606-20-2		ND	0.254	0.102
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.254	0.102
2-Nitrotoluene	88-72-2		ND	0.254	0.102
3-Nitrotoluene	99-08-1		ND	0.254	0.102
4-Nitrotoluene	99-99-0		ND	0.254	0.102
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.254	0.102
HMX	2691-41-0		ND	0.254	0.102
Nitrobenzene	98-95-3		ND	0.254	0.102
RDX	121-82-4		ND	0.254	0.102
Tetryl	479-45-8		ND	0.254	0.102

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	85.7	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-01	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-1	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 14:11
Collect Date:	08/13/2015 09:35	**Dilution:**	5	**File ID:**	5L015585.F
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	96.2

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	13.0		1.27	0.508

Sample #:	L15080781-02	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-2	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 20:26
Collect Date:	08/13/2015 10:05	**Dilution:**	1	**File ID:**	1LM.LM31415
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	93.5

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00208	0.00104
ND	Not detected at or above the reporting limit (RL)				

Certificate of Analysis

Sample #:	L15080781-02	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-2	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 13:14
Collect Date:	08/13/2015 10:05	**Dilution:**	1	**File ID:**	5L015538.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	93.5

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.259	0.104
1,3-Dinitrobenzene	99-65-0		ND	0.259	0.104
2,4,6-Trinitrotoluene	118-96-7		ND	0.259	0.104
2,4-Dinitrotoluene	121-14-2		ND	0.259	0.104
2,6-Dinitrotoluene	606-20-2		ND	0.259	0.104
2-Amino-4,6-dinitrotoluene	35572-78-2	0.140	J	0.259	0.104
2-Nitrotoluene	88-72-2		ND	0.259	0.104
3-Nitrotoluene	99-08-1		ND	0.259	0.104
4-Nitrotoluene	99-99-0		ND	0.259	0.104
4-Amino-2,6-dinitrotoluene	19406-51-0	0.145	J	0.259	0.104
HMX	2691-41-0		ND	0.259	0.104
Nitrobenzene	98-95-3		ND	0.259	0.104
RDX	121-82-4		ND	0.259	0.104
Tetryl	479-45-8		ND	0.259	0.104

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	91.9	50	150	

J	Estimated value; the analyte concentration was less than the RL/LOQ.
ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-02	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-2	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 02:26
Collect Date:	08/13/2015 10:05	**Dilution:**	1	**File ID:**	5L015567.F
Sample Tag:	02	**Units:**	mg/kg	**Percent Solid:**	93.5

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	8.05		0.259	0.104

Sample #:	L15080781-03	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-3	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 20:45
Collect Date:	08/13/2015 10:40	**Dilution:**	1	**File ID:**	1LM.LM31416
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00239	0.00120

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-03	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-3	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 03:05
Collect Date:	08/13/2015 10:40	**Dilution:**	1	**File ID:**	5L015568.F
Sample Tag:	02	**Units:**	mg/kg	**Percent Solid:**	81.9

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0		ND	0.249	0.0995

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-03	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-3	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 13:35
Collect Date:	08/13/2015 10:40	**Dilution:**	1	**File ID:**	5L015539.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.9

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.249	0.0995
1,3-Dinitrobenzene	99-65-0		ND	0.249	0.0995
2,4,6-Trinitrotoluene	118-96-7		ND	0.249	0.0995
2,4-Dinitrotoluene	121-14-2		ND	0.249	0.0995
2,6-Dinitrotoluene	606-20-2		ND	0.249	0.0995
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.249	0.0995
2-Nitrotoluene	88-72-2		ND	0.249	0.0995
3-Nitrotoluene	99-08-1		ND	0.249	0.0995
4-Nitrotoluene	99-99-0		ND	0.249	0.0995
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.249	0.0995
HMX	2691-41-0		ND	0.249	0.0995
Nitrobenzene	98-95-3		ND	0.249	0.0995
RDX	121-82-4		ND	0.249	0.0995
Tetryl	479-45-8		ND	0.249	0.0995

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	91.6	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-04	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-4	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:01
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	1LM.LM31420
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.000733	ND	0.00214	0.00107

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-04	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-4	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 13:56
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	5L015540.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.246	0.0984
1,3-Dinitrobenzene	99-65-0		ND	0.246	0.0984
2,4,6-Trinitrotoluene	118-96-7		ND	0.246	0.0984
2,4-Dinitrotoluene	121-14-2	0.205	J	0.246	0.0984
2,6-Dinitrotoluene	606-20-2		ND	0.246	0.0984
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.246	0.0984
2-Nitrotoluene	88-72-2		ND	0.246	0.0984
3-Nitrotoluene	99-08-1		ND	0.246	0.0984
4-Nitrotoluene	99-99-0		ND	0.246	0.0984
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.246	0.0984
HMX	2691-41-0	0.129	J	0.246	0.0984
Nitrobenzene	98-95-3		ND	0.246	0.0984
RDX	121-82-4		ND	0.246	0.0984
Tetryl	479-45-8		ND	0.246	0.0984

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	93.0	50	150	

J	Estimated value; the analyte concentration was less than the RL/LOQ.
ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-04	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-4	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 14:51
Collect Date:	08/13/2015 10:55	**Dilution:**	20	**File ID:**	5L015586.F
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	53.2		4.92	1.97

Sample #:	L15080781-05	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-4MS	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:19
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	1LM.LM31421
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.00291		0.00213	0.00107

Sample #:	L15080781-05	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-4MS	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 05:02
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	5L015571.F
Sample Tag:	02	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	58.4	I	0.262	0.105

I	Semiquantitative result (out of instrument calibration range)

Certificate of Analysis

Sample #:	L15080781-05	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-4MS	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 14:17
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	5L015541.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4	1.07		0.262	0.105
1,3-Dinitrobenzene	99-65-0	1.04		0.262	0.105
2,4,6-Trinitrotoluene	118-96-7	1.90		0.262	0.105
2,4-Dinitrotoluene	121-14-2	1.28		0.262	0.105
2,6-Dinitrotoluene	606-20-2	1.23		0.262	0.105
2-Amino-4,6-dinitrotoluene	35572-78-2	0.787		0.262	0.105
2-Nitrotoluene	88-72-2	1.23		0.262	0.105
3-Nitrotoluene	99-08-1	1.15		0.262	0.105
4-Nitrotoluene	99-99-0	1.17		0.262	0.105
4-Amino-2,6-dinitrotoluene	19406-51-0	1.23		0.262	0.105
HMX	2691-41-0	1.07		0.262	0.105
Nitrobenzene	98-95-3	1.25		0.262	0.105
RDX	121-82-4	1.12		0.262	0.105
Tetryl	479-45-8	0.655		0.262	0.105

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	104	50	150	

Sample #:	L15080781-06	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-4MSD	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:38
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	1LM.LM31422
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.00301		0.00214	0.00107

Certificate of Analysis

Sample #:	L15080781-06	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-4MSD	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 14:38
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	5L015542.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4	0.920		0.249	0.0996
1,3-Dinitrobenzene	99-65-0	0.877		0.249	0.0996
2,4,6-Trinitrotoluene	118-96-7	1.37		0.249	0.0996
2,4-Dinitrotoluene	121-14-2	1.11		0.249	0.0996
2,6-Dinitrotoluene	606-20-2	1.06		0.249	0.0996
2-Amino-4,6-dinitrotoluene	35572-78-2	1.03		0.249	0.0996
2-Nitrotoluene	88-72-2	1.05		0.249	0.0996
3-Nitrotoluene	99-08-1	1.64		0.249	0.0996
4-Nitrotoluene	99-99-0	1.02		0.249	0.0996
4-Amino-2,6-dinitrotoluene	19406-51-0	1.26		0.249	0.0996
HMX	2691-41-0	0.954		0.249	0.0996
Nitrobenzene	98-95-3	1.11		0.249	0.0996
RDX	121-82-4	0.930		0.249	0.0996
Tetryl	479-45-8	0.529		0.249	0.0996

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	99.8	50	150	

Sample #:	L15080781-06	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-4MSD	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 05:42
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	5L015572.F
Sample Tag:	02	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	12.5	I	0.249	0.0996
I	Semiquantitative result (out of instrument calibration range)				

Certificate of Analysis

Sample #:	L15080781-07	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-5	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:57
Collect Date:	08/13/2015 11:10	**Dilution:**	1	**File ID:**	1LM.LM31423
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.2

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00200	0.00100

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-07	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-5	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 14:59
Collect Date:	08/13/2015 11:10	**Dilution:**	1	**File ID:**	5L015543.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.2

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.255	0.102
1,3-Dinitrobenzene	99-65-0		ND	0.255	0.102
2,4,6-Trinitrotoluene	118-96-7		ND	0.255	0.102
2,4-Dinitrotoluene	121-14-2		ND	0.255	0.102
2,6-Dinitrotoluene	606-20-2		ND	0.255	0.102
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.255	0.102
2-Nitrotoluene	88-72-2		ND	0.255	0.102
3-Nitrotoluene	99-08-1		ND	0.255	0.102
4-Nitrotoluene	99-99-0		ND	0.255	0.102
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.255	0.102
HMX	2691-41-0		ND	0.255	0.102
Nitrobenzene	98-95-3		ND	0.255	0.102
RDX	121-82-4		ND	0.255	0.102
Tetryl	479-45-8		ND	0.255	0.102

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	92.8	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-07	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-5	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 15:30
Collect Date:	08/13/2015 11:10	**Dilution:**	20	**File ID:**	5L015587.F
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	81.2

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	57.6		5.10	2.04

Sample #:	L15080781-08	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-6	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 23:16
Collect Date:	08/13/2015 11:35	**Dilution:**	1	**File ID:**	1LM.LM31424
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.3

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.00256		0.00197	0.000985

Sample #:	L15080781-08	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-6	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 15:20
Collect Date:	08/13/2015 11:35	**Dilution:**	1	**File ID:**	5L015544.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.3

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.250	0.0998
1,3-Dinitrobenzene	99-65-0		ND	0.250	0.0998
2,4,6-Trinitrotoluene	118-96-7		ND	0.250	0.0998
2,4-Dinitrotoluene	121-14-2	0.313		0.250	0.0998
2,6-Dinitrotoluene	606-20-2		ND	0.250	0.0998
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.250	0.0998
2-Nitrotoluene	88-72-2		ND	0.250	0.0998
3-Nitrotoluene	99-08-1		ND	0.250	0.0998
4-Nitrotoluene	99-99-0		ND	0.250	0.0998
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.250	0.0998
HMX	2691-41-0		ND	0.250	0.0998
Nitrobenzene	98-95-3		ND	0.250	0.0998

Certificate of Analysis

Analyte	CAS #	Result	Qual	RL	MDL
RDX	121-82-4		ND	0.250	0.0998
Tetryl	479-45-8		ND	0.250	0.0998

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	90.7	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-08	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-6	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 16:09
Collect Date:	08/13/2015 11:35	**Dilution:**	20	**File ID:**	5L015588.F
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	81.3

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	48.5		4.99	2.00

Sample #:	L15080781-09	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-7	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 23:35
Collect Date:	08/13/2015 11:50	**Dilution:**	1	**File ID:**	1LM.LM31425
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.1

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00212	0.00106

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-09	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-7	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 16:02
Collect Date:	08/13/2015 11:50	**Dilution:**	1	**File ID:**	5L015546.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.1

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.250	0.0999
1,3-Dinitrobenzene	99-65-0		ND	0.250	0.0999
2,4,6-Trinitrotoluene	118-96-7		ND	0.250	0.0999
2,4-Dinitrotoluene	121-14-2		ND	0.250	0.0999
2,6-Dinitrotoluene	606-20-2		ND	0.250	0.0999
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.250	0.0999
2-Nitrotoluene	88-72-2		ND	0.250	0.0999
3-Nitrotoluene	99-08-1		ND	0.250	0.0999
4-Nitrotoluene	99-99-0		ND	0.250	0.0999
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.250	0.0999
HMX	2691-41-0		ND	0.250	0.0999
Nitrobenzene	98-95-3		ND	0.250	0.0999
RDX	121-82-4		ND	0.250	0.0999
Tetryl	479-45-8		ND	0.250	0.0999

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	86.8	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-09	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-7	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 16:48
Collect Date:	08/13/2015 11:50	**Dilution:**	5	**File ID:**	5L015589.F
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	92.1

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	10.2		1.25	0.500

Sample #:	L15080781-10	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-8	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 23:54
Collect Date:	08/13/2015 12:10	**Dilution:**	1	**File ID:**	1LM.LM31426
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	95.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00200	0.00100
ND	Not detected at or above the reporting limit (RL)				

Certificate of Analysis

Sample #:	L15080781-10	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-8	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 16:24
Collect Date:	08/13/2015 12:10	**Dilution:**	1	**File ID:**	5L015547.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	95.9

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.255	0.102
1,3-Dinitrobenzene	99-65-0		ND	0.255	0.102
2,4,6-Trinitrotoluene	118-96-7		ND	0.255	0.102
2,4-Dinitrotoluene	121-14-2		ND	0.255	0.102
2,6-Dinitrotoluene	606-20-2		ND	0.255	0.102
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.255	0.102
2-Nitrotoluene	88-72-2		ND	0.255	0.102
3-Nitrotoluene	99-08-1		ND	0.255	0.102
4-Nitrotoluene	99-99-0		ND	0.255	0.102
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.255	0.102
HMX	2691-41-0		ND	0.255	0.102
Nitrobenzene	98-95-3		ND	0.255	0.102
RDX	121-82-4		ND	0.255	0.102
Tetryl	479-45-8		ND	0.255	0.102

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	87.9	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-10	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-8	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 08:18
Collect Date:	08/13/2015 12:10	**Dilution:**	1	**File ID:**	5L015576.F
Sample Tag:	02	**Units:**	mg/kg	**Percent Solid:**	95.9

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	0.549		0.255	0.102

Sample #:	L15080781-11	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-X	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/18/2015 00:13
Collect Date:	08/13/2015 11:55	**Dilution:**	1	**File ID:**	1LM.LM31427
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.8

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00208	0.00104

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-11	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-X	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/28/2015 18:49
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/24/2015 16:45
Collect Date:	08/13/2015 11:55	**Dilution:**	1	**File ID:**	5L015548.F
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.8

Analyte	CAS #	Result	Qual	RL	MDL
1,3,5-Trinitrobenzene	99-35-4		ND	0.251	0.101
1,3-Dinitrobenzene	99-65-0		ND	0.251	0.101
2,4,6-Trinitrotoluene	118-96-7		ND	0.251	0.101
2,4-Dinitrotoluene	121-14-2		ND	0.251	0.101
2,6-Dinitrotoluene	606-20-2		ND	0.251	0.101
2-Amino-4,6-dinitrotoluene	35572-78-2		ND	0.251	0.101
2-Nitrotoluene	88-72-2		ND	0.251	0.101
3-Nitrotoluene	99-08-1		ND	0.251	0.101
4-Nitrotoluene	99-99-0		ND	0.251	0.101
4-Amino-2,6-dinitrotoluene	19406-51-0		ND	0.251	0.101
HMX	2691-41-0		ND	0.251	0.101
Nitrobenzene	98-95-3		ND	0.251	0.101
RDX	121-82-4		ND	0.251	0.101
Tetryl	479-45-8		ND	0.251	0.101

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dinitrobenzene	90.3	50	150	

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-11	**PrePrep Method:**	N/A	**Instrument:**	HPLC5
Client ID:	PAD-X	**Prep Method:**	METHOD	**Prep Date:**	08/20/2015 14:08
Matrix:	Soil	**Analytical Method:**	8330B	**Cal Date:**	07/29/2015 20:42
Workgroup #:	WG536214	**Analyst:**	ECL	**Run Date:**	08/25/2015 17:27
Collect Date:	08/13/2015 11:55	**Dilution:**	5	**File ID:**	5L015590.F
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	92.8

Analyte	CAS #	Result	Qual	RL	MDL
Nitroglycerin	55-63-0	11.3		1.26	0.503

Microbac

Lab Report #: L15080781
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Sample #: L15080781-01 **Client ID:** PAD-1 **Matrix:** Soil **Collect Date:** 08/13/2015 09:35

Analyte	Result	Units	Qualifier
Percent Solids	96.2	weight %	

Sample #: L15080781-02 **Client ID:** PAD-2 **Matrix:** Soil **Collect Date:** 08/13/2015 10:05

Analyte	Result	Units	Qualifier
Percent Solids	93.5	weight %	

Sample #: L15080781-03 **Client ID:** PAD-3 **Matrix:** Soil **Collect Date:** 08/13/2015 10:40

Analyte	Result	Units	Qualifier
Percent Solids	81.9	weight %	

Sample #: L15080781-04 **Client ID:** PAD-4 **Matrix:** Soil **Collect Date:** 08/13/2015 10:55

Analyte	Result	Units	Qualifier
Percent Solids	90.9	weight %	

Sample #: L15080781-05 **Client ID:** PAD-4MS **Matrix:** Soil **Collect Date:** 08/13/2015 10:55

Analyte	Result	Units	Qualifier
Percent Solids	90.9	weight %	

Sample #: L15080781-06 **Client ID:** PAD-4MSD **Matrix:** Soil **Collect Date:** 08/13/2015 10:55

Analyte	Result	Units	Qualifier
Percent Solids	90.9	weight %	

Sample #: L15080781-07 **Client ID:** PAD-5 **Matrix:** Soil **Collect Date:** 08/13/2015 11:10

Analyte	Result	Units	Qualifier
Percent Solids	81.2	weight %	

Sample #: L15080781-08 **Client ID:** PAD-6 **Matrix:** Soil **Collect Date:** 08/13/2015 11:35

Analyte	Result	Units	Qualifier
Percent Solids	81.3	weight %	

Sample #: L15080781-09 **Client ID:** PAD-7 **Matrix:** Soil **Collect Date:** 08/13/2015 11:50

Analyte	Result	Units	Qualifier
Percent Solids	92.1	weight %	

Sample #: L15080781-10 **Client ID:** PAD-8 **Matrix:** Soil **Collect Date:** 08/13/2015 12:10

Analyte	Result	Units	Qualifier
Percent Solids	95.9	weight %	

Lab Report #: L15080781
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Sample #: L15080781-11 **Client ID:** PAD-X **Matrix:** Soil **Collect Date:** 08/13/2015 11:55

Analyte	Result	Units	Qualifier
Percent Solids	92.8	weight %	

2.0 Full Sample Data Package

2.1 General Chromatography Data

2.1.1 6850 LC/MS Data

2.1.1.1 Summary Data

Login Number: L15080781
Department: General Chromatography
Analyst: John W. Richards Jr.

METHOD

Analysis SW-846 6850

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

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

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

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

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

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 102923
Approved By: Wade DeLong

Microbac

Lab Report #: L15080781
Lab Project #: 3070.001
Project Name: Draper Aden Associates
Lab Contact: Michelle Taylor

Certificate of Analysis

Sample #:	L15080781-01	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-1	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 20:07
Collect Date:	08/13/2015 09:35	**Dilution:**	1	**File ID:**	1LM.LM31414
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	96.2

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00203	0.00101

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-02	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-2	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 20:26
Collect Date:	08/13/2015 10:05	**Dilution:**	1	**File ID:**	1LM.LM31415
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	93.5

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00208	0.00104

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-03	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-3	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 20:45
Collect Date:	08/13/2015 10:40	**Dilution:**	1	**File ID:**	1LM.LM31416
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00239	0.00120

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-04	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-4	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:01
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	1LM.LM31420
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.000733	ND	0.00214	0.00107

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-05	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-4MS	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:19
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	1LM.LM31421
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.00291		0.00213	0.00107

Sample #:	L15080781-06	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-4MSD	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:38
Collect Date:	08/13/2015 10:55	**Dilution:**	1	**File ID:**	1LM.LM31422
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.00301		0.00214	0.00107

Sample #:	L15080781-07	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-5	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 22:57
Collect Date:	08/13/2015 11:10	**Dilution:**	1	**File ID:**	1LM.LM31423
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.2

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00200	0.00100

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-08	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-6	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 23:16
Collect Date:	08/13/2015 11:35	**Dilution:**	1	**File ID:**	1LM.LM31424
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.3

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0	0.00256		0.00197	0.000985

Sample #:	L15080781-09	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-7	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 23:35
Collect Date:	08/13/2015 11:50	**Dilution:**	1	**File ID:**	1LM.LM31425
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.1

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00212	0.00106

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-10	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-8	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/17/2015 23:54
Collect Date:	08/13/2015 12:10	**Dilution:**	1	**File ID:**	1LM.LM31426
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	95.9

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00200	0.00100

ND	Not detected at or above the reporting limit (RL)

Certificate of Analysis

Sample #:	L15080781-11	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	PAD-X	**Prep Method:**	6850	**Prep Date:**	08/17/2015 15:00
Matrix:	Soil	**Analytical Method:**	6850	**Cal Date:**	08/06/2015 00:22
Workgroup #:	WG535337	**Analyst:**	JWR	**Run Date:**	08/18/2015 00:13
Collect Date:	08/13/2015 11:55	**Dilution:**	1	**File ID:**	1LM.LM31427
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.8

Analyte	CAS #	Result	Qual	RL	MDL
Perchlorate	14797-73-0		ND	0.00208	0.00104

ND	Not detected at or above the reporting limit (RL)

2.1.1.2 QC Summary Data

Example Calculation 6850 - Perchlorate

Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of internal standard (IS) = Rx/Ristd

x = amount ratio = concentration analyte/concentration internal standard (IS) = Cx / Cistd

m = slope from curve (1.45)

b = intercept from curve (-0.00242)

y = 1.45x + -0.00242

Step 2: Substitute the value for y

where y = 12600/226000 = 0.055752

Step 3: Solve for x

x = (y - b)/m = 0.0040119

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(x) = (5 ug/L)(0.040119) = 0.200594 ug/L

Example Calculation - Water:

Slope from curve, m:	1.45
Intercept from curve, b:	-0.00242
Response of analyte, Rx:	12600
Response of Internal Standard , Ristd:	226000
Concentration of IS, Cistd (ug/L):	5.00
Response Ratio:	0.05575
Amount Ratio:	0.04012
Analyte Concentration, Cx (ug/L) :	0.200594

Example Calculation - Soil:

Analyte Concentration, Cx (ug/L):	0.20059
Amount of soil extracted (g):	5.00
Final volume of extract (mL):	50.00
Percent solids (Pct wt.)	100
Concentration in soil (ug/kg):	2.005938

MICROBAC

Semivolatile Sample Extract Log

Parameter: Perchlorate
SOP #: HPLC 06
Analyst: JWR
Spike/Surrogate analyst: JWR
Surrogate #: NA
Spike # A: STD69538
Ext Solvent: DI-H2O
Ext Solvent: NA
Ext Disk: NA

Matrix: Soil
Rev #: 07
Date/Time Extracted: 08/17/15/1500
Witness: MES 8.17.15

Spike # B: NA
Lot #:
Lot #: NA
Lot #: NA

Extraction Work Group: WG535262 JWR 08/17/15
Analytical Work Group: ~~WG535537~~ WG535337
Run ID: R4200730

Analytical Balance ID: BAL021
Reagent: Tubes Lot #: RGT34011
Reagent: Sand Lot #: COA16150
Other: IS Lot #: COA18071

Color Code
T = Transparent
C = Colored
O = Opaque

	Sample ID	Test Code	pH	Initial Wt / Vol	JWR ~~Surrogate~~ Amount IS	Amount Spike	Final Volume	Extract Color	Comments
1	WG535262-01	6850		5.007g	0.25ml	1.0ml	50ml		MCT (10,000 us)(2ug/kg)
2	WG535262-02			5.003g		NA			Blank
3	WG535262-03			5.016g		1.0ml			LCS (2ug/kg)
4	L15070002-01 LOD			5.002g		0.5ml			LOD (1ug/kg)
5	L15070004-01 LOQ			5.005g		1.0ml			LOQ (2ug/kg)
6	L15071709-02 PT			5.017g		NA			PT (Lot # 5061-30)
7	L15080781-01			5.121g		NA			
8	-02			5.134g		NA			
9	-03			5.108g		NA			
10	-04 RS			5.144g		NA			WG535262-04 RS
11	-05 MS			5.163g		1.0ml			WG535262-05 MS (@2ug/kg)
12	-06 MSD			5.155g		1.0ml			WG535262-06 MSD (@2ug/kg)
13	-07 *			6.145g		NA			* Approx. 1/3 of sample jar contains water by volume.
14	-08 *			6.239g		NA			* Standing water on top of soil in sample jar.
15	-09			5.115g		NA			
16	-10			5.202g		NA			
17	-11			5.180g		NA			
18									
19									
20									
21					JWR 08/17/15				
22									
23									
24									

Reviewed by:

Analytical WG535337 (soils)

Perchlorate Conductivity Check

(perchlorate1)

Conductivity Probe Calibration Check: 1447 /1410 µs/cm

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG535262-01 MCT	9,990.	
-02 Blank	0.81	
-03 LCS	0.90	
L15070002-01 LOD	0.97	
L15070004-01 LOQ	1.06	
L15071709-02 PT	334.	
L15080781-01	35.7	
-02	42.3	
-03	86.6	
-04 RS	47.4	
-05 MS	48.1	
-06 MSD	47.4	
-07	35.2	
-08	38.2	
-09	40.6	
-10	36.8	
-11	40.4	

Analyst: John Richards

Date/Time: 08/17/15 17:30

DCN#112578

Microbac Laboratories Inc.

Instrument Run Log

Instrument: LCMS1 Dataset: 080515_JWR.TXT
Analyst1: JWR Analyst2: NA
Method: 6850 SOP: HPLC06 Rev: 7

Maintenance Log ID: Syringe Filter Lot#: 140701254
Eluent ID#:
Column 1 ID: KP-RPPX250 Column 2 ID: NA
Workgroups: ICAL-Only
Internal STD: COA18071 Surrogate STD: NA Calibration STD STD69537 (08/05/2015)
CCV STD: NA LCS STD: NA MS/MSD STD: NA

Comments: ICAL WG533952 : Alternate Source STD69913

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	1LM.LM31292	WG533952-01 CCB	1	1		08/05/15 22:09
2	1LM.LM31293	WG533952-02 STD (0.1 ug/L)	1	1	STD69537	08/05/15 22:28
3	1LM.LM31294	WG533952-03 STD (0.2 ug/L)	1	1	STD69537	08/05/15 22:47
4	1LM.LM31295	WG533952-04 STD (0.5 ug/L)	1	1	STD69537	08/05/15 23:06
5	1LM.LM31296	WG533952-05 STD (1.0 ug/L)	1	1	STD69537	08/05/15 23:25
6	1LM.LM31297	WG533952-06 STD (2.0 ug/L)	1	1	STD69537	08/05/15 23:44
7	1LM.LM31298	WG533952-07 STD (5.0 ug/L)	1	1	STD69537	08/06/15 00:03
8	1LM.LM31299	WG533952-08 STD (10 ug/L)	1	1	STD69537	08/06/15 00:22
9	1LM.LM31300	WG533952-09 SSCV (1.0 ug/L)	1	1	STD69913	08/06/15 00:41

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 10-AUG-15

Microbac Laboratories Inc.

Instrument Run Log

Instrument: LCMS1 Dataset: 081715_JWR.TXT
Analyst1: JWR Analyst2: NA
Method: 6850 SOP: HPLC06 Rev: 7

Maintenance Log ID: Syringe Filter Lot#: 140701254
Eluent ID#:

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: Analytical WG535337 (soils)

Internal STD: COA18071 Surrogate STD: NA Calibration STD STD69537 (08/05/2015)

CCV STD: STD69537 LCS STD: STD69537 MS/MSD STD: STD69537

Comments: Sample L15071709-02 was analyzed at dilutions only based on the information provided with its preparation instructions.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	1LM.LM31404	WG535343-01 CCB	1	1		08/17/15 16:58
2	1LM.LM31405	WG535343-02 CCV (1.0ug/L)	1	1	STD69537	08/17/15 17:17
3	1LM.LM31406	WG535337-07 MRL (2.0ug/kg)	7	1	STD69537	08/17/15 17:35
4	1LM.LM31407	WG535337-01 MCT (2.0ug/kg)	7	1	STD69537	08/17/15 17:54
5	1LM.LM31408	WG535337-02 BLANK	7	1		08/17/15 18:13
6	1LM.LM31409	WG535337-03 LCS (2.0ug/kg)	7	1	STD69537	08/17/15 18:32
7	1LM.LM31410	L15070002-01 LOD (1.0ug/kg)	7	1	STD69537	08/17/15 18:51
8	1LM.LM31411	L15070004-01 LOQ (2.0ug/kg)	7	1	STD69537	08/17/15 19:10
9	1LM.LM31412	L15071709-02 PT (5x) (NR)	7	5		08/17/15 19:29
10	1LM.LM31413	L15071709-02 PT (10x)	7	10		08/17/15 19:48
11	1LM.LM31414	L15080781-01	7	1		08/17/15 20:07
12	1LM.LM31415	L15080781-02	7	1		08/17/15 20:26
13	1LM.LM31416	L15080781-03	7	1		08/17/15 20:45
14	1LM.LM31417	WG535343-03 CCV (1.0ug/L)	1	1	STD69537	08/17/15 21:04
15	1LM.LM31418	WG535337-08 MRL (2.0ug/kg)	7	1	STD69537	08/17/15 21:23
16	1LM.LM31419	WG535343-04 CCB	1	1		08/17/15 21:42
17	1LM.LM31420	L15080781-04 RS	7	1		08/17/15 22:01
18	1LM.LM31421	L15080781-05 MS	7	1	STD69537	08/17/15 22:19
19	1LM.LM31422	L15080781-06 MSD	7	1	STD69537	08/17/15 22:38
20	1LM.LM31423	L15080781-07	7	1		08/17/15 22:57
21	1LM.LM31424	L15080781-08	7	1		08/17/15 23:16
22	1LM.LM31425	L15080781-09	7	1		08/17/15 23:35
23	1LM.LM31426	L15080781-10	7	1		08/17/15 23:54
24	1LM.LM31427	L15080781-11	7	1		08/18/15 00:13
25	1LM.LM31428	WG535343-05 CCV (1.0ug/L)	1	1	STD69537	08/18/15 00:32
26	1LM.LM31429	WG535337-09 MRL (2.0ug/kg)	7	1	STD69537	08/18/15 00:51
27	1LM.LM31430	WG535343-06 CCB	1	1		08/18/15 01:10

Comments

Seq.	Rerun	Dil.	Reason	Analytes
9				
	L15071709-02 PT (5x) (NR) : The results from the analysis of this sample at a 10x dilution will be reported.			

Page: 1 Approved: 20-AUG-15

Microbac Laboratories Inc.

Data Checklist

Date: 05-AUG-2015
Analyst: JWR
Analyst: NA
Method: 6850
Instrument: LCMS1
Curve Workgroup: WG533952
Runlog ID: 69666
Analytical Workgroups: ICAL ONLY

ANALYTICAL	
System Performance Check	NA
DFTPP (GCMS)	NA
Endrin/DDT breakdown (8081/GCMS)	NA
Pentachlorophenol/benzidine tailing (GCMS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	NA
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (GCMS)	X
Continuing calibration blank (CCB) (IC/LCMS)	NA
Limit of quantitation verification (LOQV) (LCMS)	NA
Special standards	NA
Blanks	NA
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Interference check sample (ICS) (LCMS)	NA
Samples	NA
TCL hits	NA
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	X
Library searches (GCMS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	JWR
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	WTD

Primary Reviewer:
06-AUG-2015

John Richards

Secondary Reviewer:
10-AUG-2015

Wadei D

CHECKLIST1 - Modified 03/05/2008
Generated: AUG-10-2015 15:44:17

Microbac Laboratories Inc.

Data Checklist

Date: 17-AUG-2015
Analyst: JWR
Analyst: NA
Method: 6850
Instrument: LCMS1
Curve Workgroup: NA
Runlog ID: 69928
Analytical Workgroups: L15070002(LOD),0004(LOQ),1709(PT) L15080781 (SOILS)

ANALYTICAL	
System Performance Check	NA
DFTPP (GCMS)	NA
Endrin/DDT breakdown (8081/GCMS)	NA
Pentachlorophenol/benzidine tailing (GCMS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (GCMS)	X
Continuing calibration blank (CCB) (IC/LCMS)	X
Limit of quantitation verification (LOQV) (LCMS)	X
Special standards	NA
Blanks	X
TCL hits	ND
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Interference check sample (ICS) (LCMS)	MCT
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	X
Library searches (GCMS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	
Check for completeness	X
Primary Reviewer	JWR
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	WTD

Primary Reviewer:
20-AUG-2015
John Richards

Secondary Reviewer:
20-AUG-2015
Wadei D

CHECKLIST1 - Modified 03/05/2008
Generated: AUG-20-2015 14:36:16

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6850 AAB#: WG535337

Login Number: L15080781

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
PAD-1	01	08/13/15					08/17/2015	4.2	28		08/17/15	.2	28	
PAD-2	02	08/13/15					08/17/2015	4.2	28		08/17/15	.2	28	
PAD-3	03	08/13/15					08/17/2015	4.2	28		08/17/15	.2	28	
PAD-4	04	08/13/15					08/17/2015	4.2	28		08/17/15	.3	28	
PAD-4MS	05	08/13/15					08/17/2015	4.2	28		08/17/15	.3	28	
PAD-4MSD	06	08/13/15					08/17/2015	4.2	28		08/17/15	.3	28	
PAD-5	07	08/13/15					08/17/2015	4.2	28		08/17/15	.3	28	
PAD-6	08	08/13/15					08/17/2015	4.1	28		08/17/15	.3	28	
PAD-7	09	08/13/15					08/17/2015	4.1	28		08/17/15	.4	28	
PAD-8	10	08/13/15					08/17/2015	4.1	28		08/17/15	.4	28	
PAD-X	11	08/13/15					08/17/2015	4.1	28		08/18/15	.4	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 4343749
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L15080781
Blank File ID: 1LM.LM31408
Prep Date: 08/17/15 15:00
Analyzed Date: 08/17/15 18:13
Analyst: JWR

Work Group: WG535337
Blank Sample ID: WG535337-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG535337-07	1LM.LM31406	08/17/15 17:35	01
MCT	WG535337-01	1LM.LM31407	08/17/15 17:54	01
LCS	WG535337-03	1LM.LM31409	08/17/15 18:32	01
PAD-1	L15080781-01	1LM.LM31414	08/17/15 20:07	01
PAD-2	L15080781-02	1LM.LM31415	08/17/15 20:26	01
PAD-3	L15080781-03	1LM.LM31416	08/17/15 20:45	01
QCMRL	WG535337-08	1LM.LM31418	08/17/15 21:23	01
PAD-4	L15080781-04	1LM.LM31420	08/17/15 22:01	01
PAD-4MS	L15080781-05	1LM.LM31421	08/17/15 22:19	01
PAD-4MSD	L15080781-06	1LM.LM31422	08/17/15 22:38	01
PAD-5	L15080781-07	1LM.LM31423	08/17/15 22:57	01
PAD-6	L15080781-08	1LM.LM31424	08/17/15 23:16	01
PAD-7	L15080781-09	1LM.LM31425	08/17/15 23:35	01
PAD-8	L15080781-10	1LM.LM31426	08/17/15 23:54	01
PAD-X	L15080781-11	1LM.LM31427	08/18/15 00:13	01
QCMRL	WG535337-09	1LM.LM31429	08/18/15 00:51	01

Report Name: BLANK_SUMMARY
PDF File ID: 4343750
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L15080781 Prep Date: 08/17/15 15:00 Sample ID: WG535337-02
Instrument ID: LCMS1 Run Date: 08/17/15 18:13 Prep Method: 6850
File ID: 1LM.LM31408 Analyst: JWR Method: 6850
Workgroup (AAB#): WG535337 Matrix: Soil Units: mg/kg
Contract #: Cal ID: LCMS1-06-AUG-15

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Perchlorate	0.000999	0.00200	0.000999	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 4343751
20-AUG-2015 14:55

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L15080781 Run Date: 08/17/2015 Sample ID: WG535337-03
Instrument ID: LCMS1 Run Time: 18:32 Prep Method: 6850
File ID: 1LM.LM31409 Analyst: JWR Method: 6850
Workgroup (AAB#): WG535337 Matrix: Soil Units: mg/kg
QC Key: STD Lot#: STD69537 Cal ID: LCMS1-06-AUG-15

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	0.00199	0.00215	108	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 4343752
Report generated: 08/20/2015 14:55

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L15080781 Cal ID: LCMS1- 06-AUG-15 Worknum: WG535337

Instrument ID: LCMS1 Contract #: Prep Method: 6850

Parent ID: L15080781-04 File ID: 1LM.LM31420 Dil: 1 Method: 6850

Sample ID: L15080781-05 MS File ID: 1LM.LM31421 Dil: 1 Matrix: Soil

Sample ID: L15080781-06 MSD File ID: 1LM.LM31422 Dil: 1 Units: mg/kg

Percent Solid: 90.9

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	0.000733	0.00213	0.00291	102	0.00214	0.00301	107	3.40	70 - 130	15	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 4343753
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L15080781
Analytical Method: 6850
ICAL Workgroup: WG533952

Instrument ID: LCMS1
Initial Calibration Date: 06-AUG-15 00:22
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Perchlorate		1.372	8.13	1.00000	

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 4344397
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L15080781

Analytical Method: 6850

Instrument ID: LCMS1

Initial Calibration Date: 06-AUG-15 00:22

Column ID: F

Analyte	WG533952-02			WG533952-03			WG533952-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Perchlorate	0.100	11400.0000	1.406	0.200	25600.0000	1.446	0.500	59400.0000	1.351

INT_CAL - Modified 03/06/2008
PDF File ID: 4344397
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L15080781

Analytical Method: 6850

Instrument ID: LCMS1

Initial Calibration Date: 06-AUG-15 00:22

Column ID: F

Analyte	WG533952-05			WG533952-06			WG533952-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Perchlorate	1.00	112000.000	1.326	2.00	231000.000	1.381	5.00	550000.000	1.342

INT_CAL - Modified 03/06/2008
PDF File ID: 4344397
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L15080781

Analytical Method: 6850

Instrument ID: LCMS1

Initial Calibration Date: 06-AUG-15 00:22

Column ID: F

Analyte	WG533952-08		
	CONC	RESP	RF
Perchlorate	10.0	975000.000	1.354

INT_CAL - Modified 03/06/2008
PDF File ID: 4344397
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L15080781 Run Date: 08/06/2015 Sample ID: WG533952-09
Instrument ID: LCMS1 Run Time: 00:41 Method: 6850
File ID: 1LM.LM31300 Analyst: JWR QC Key: STD
ICal Workgroup: WG533952 Cal ID: LCMS1 - 06-AUG-15

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Perchlorate		1.00	0.956	ug/L	1.30	4.40	15	

* Exceeds %D Limit

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 4344398
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L15080781 Run Date: 08/17/2015 Sample ID: WG535343-01
Instrument ID: LCMS1 Run Time: 16:58 Method: 6850
File ID: 1LM.LM31404 Analyst: JWR Units: ug/L
Workgroup (AAB#): WG535337 Cal ID: LCMS1 - 06-AUG-15
Matrix: WATER QAPP: STD

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 4343756
Report generated 08/20/2015 14:55

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L15080781 Run Date: 08/17/2015 Sample ID: WG535343-04
Instrument ID: LCMS1 Run Time: 21:42 Method: 6850
File ID: 1LM.LM31419 Analyst: JWR Units: ug/L
Workgroup (AAB#): WG535337 Cal ID: LCMS1 - 06-AUG-15
Matrix: WATER QAPP: STD

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L15080781 Run Date: 08/18/2015 Sample ID: WG535343-06
Instrument ID: LCMS1 Run Time: 01:10 Method: 6850
File ID: 1LM.LM31430 Analyst: JWR Units: ug/L
Workgroup (AAB#): WG535337 Cal ID: LCMS1 - 06-AUG-15
Matrix: WATER QAPP: STD

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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