Phase II Environmental Site Assessment

Arden's Country Store
Malott, Washington

for
Washington State Department of Ecology

June 30, 2011

GeoEngineers
Earth Science + Technology

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30 YEARS 2010

Phase II Environmental Site Assessment

Arden's Country Store
Malott, Washington

File No. 0504-067-00

June 30, 2011

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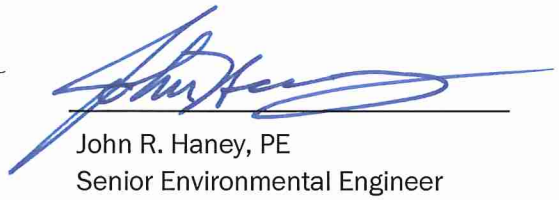

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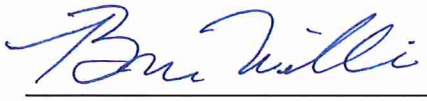

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Table of Contents

1.0 INTRODUCTION

This report summarizes Phase II environmental site assessment (ESA) activities conducted at the former Arden's Country Store located at 1458 Old Highway 97 in Malott, Washington (herein referred to as the "site"). Environmental activities at the site currently are managed by the Washington State Department of Ecology (Ecology). The site currently is owned by the Colville Tribal Credit Corporation (CTCC). CTCC desires to sell the property and is working with Ecology to assess soil conditions in preparation of future divestment of the property. The site's location relative to surrounding properties is depicted in Vicinity Map, Figure 1.

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located on the northeast corner of the intersection of Old Highway 97 and B and O Road. The general site layout is depicted in Site Plan, Figure 2. The site is about ¾ of an acre and generally is flat. The former store building is located on the southern end of the property along B and O Road.

Underground storage tanks (USTs), used to store petroleum products for retail sales, were present at the site since at least 1968 (Ecology and Environment, 1992). The first USTs installed at the site, two 550-gallon gasoline USTs, were located adjacent to the southwest corner of the store building. These two tanks (the "East Tank" and the "West Tank") were removed from the site in 1988. The East Tank reportedly had been inactive for 20 years and the West Tank had been inactive for 4 years prior to removal. During removal it was noted that one of the USTs (the "West Tank") had an approximately 1/8-inch hole about halfway up the south end of the tank. Soil surrounding the tanks was visibly stained following tank removal and analytical results of samples collected from beneath the tanks indicated xylenes were present in subsurface soil at a concentration greater than the current Washington State Model Toxics Control Act (MTCA) Method A cleanup level for unrestricted land use. Records we reviewed did not indicate that overexcavation of contaminated soil was conducted following tank removal.

Three additional USTs were installed at the site between 1984 and 1985: a 4,000-gallon unleaded gasoline tank and two, 2,000-gallon unleaded gasoline tanks. The fueling system also included about 40 to 50 feet of product piping and fuel dispensers (ECOVA Corporation, 1993). The former USTs were located northeast of the store building and the former fuel dispensers were located northwest of the building. The tanks and appurtenances were taken out of service in 1992. A gasoline release from the former UST fuel dispensers was discovered during decommissioning and removal of the fueling system in May 1993. During removal activities, petroleum hydrocarbon contamination was observed beneath the dispensers; contamination was not observed in the UST excavation.

Cleanup actions at the site were conducted by Ecology under Enforcement Order Number DE 91-C141). Approximately 1,100 cubic yards of petroleum-contaminated soil were excavated from beneath the former dispensers in May 1993; the approximate limits of the remedial excavation are shown on Figure 2. Contaminated soil was stockpiled and then treated on-site by

thermal desorption using a rotary kiln between May 24 and June 7, 1993. Treated soil was used to backfill the remedial excavation.

Groundwater monitoring wells were installed at the site during assessment activities and groundwater samples were collected and analyzed. Analytical results indicated groundwater beneath the site was contaminated with gasoline-range petroleum hydrocarbons (GRPH), lead, and benzene, toluene, ethylbenzene, and xylenes (BTEX). A groundwater treatment system, consisting of a pumping well, activated carbon treatment, and an injection/infiltration gallery, was installed at the site in June 1993. The treatment system began operating in June 1993 and operated for an unknown period of time.

Following the cleanup action, residual concentrations of volatile organic compounds (VOC) in soil and groundwater beneath the site remained greater than Model Toxics Control Act (MTCA) Method A cleanup levels. Ecology conducted a periodic review of the project site in 2008 as required by the Washington Administrative Code Sections 173-340-740 through 173-340-760. The review concluded that soil containing total petroleum hydrocarbons (TPH) concentrations greater than the 2,000 milligrams per kilogram (mg/kg) MTCA Method A cleanup level remain on-site but currently are capped by asphalt. The review also concluded that contaminant concentrations in groundwater currently are less than MTCA Method A cleanup levels (Ecology, 2008).

Asphalt-paved parking currently is located in the area of the former UST's and fuel dispensers. Unmaintained vegetation is fenced to the northeast and southeast of the building. Residential properties are located north of the site and a U.S. Post Office is located to the east.

3.0 SCOPE OF SERVICES

Ecology contracted GeoEngineers to conduct Phase II ESA activities at the site. Assessment activities were conducted in general accordance with our proposal dated June 3, 2011. The purpose of the Phase II ESA was to assess current conditions at the site with respect to residual soil contamination from the dispenser release. GeoEngineers provided the following scope of services for this portion of the project:

- Reviewed Ecology-provided files, data, reports and documentation.
- Drilled 10 direct-push soil borings near former remedial excavation confirmation sample locations DXSE and DXNE (see Figure 2). Five borings were drilled in each area (10 borings total) to depths between 16 and 20 feet below ground surface (bgs) using direct-push drilling techniques. Borings were drilled at locations approximately between the store building/property line and former remedial excavation.
- Collected samples continuously in 4-foot acrylic sleeves during drilling. Select sub-samples were field-screened using visual observations, water sheen, and headspace vapor measurements with a photoionization detector (PID) to assess possible presence of petroleum-related contaminants. At least one sample from each 4-foot sleeve was collected for potential chemical analysis. Cuttings were drummed, labeled, and stored on-site pending results of analytical testing;

- Submitted two or three soil samples (three samples submitted from DP-5 and DP-7) from each boring (22 samples total) to TestAmerica, Inc. (TestAmerica) located in Spokane Valley, Washington for chemical analysis.
- Analyzed samples for GRPH using Northwest Method NWTPH-Gx and for diesel- and oil-range hydrocarbons (DRPH and ORPH, respectively) using Northwest Method NWTPH-Dx with silica gel cleanup. Two samples (DP-6[10] and DP-7[15]), collected using the US Environmental Protection Agency (EPA) 5035 sampling methodology, additionally were analyzed for BTEX and n-hexane using EPA Method 8260B and aliphatics and aromatics using Ecology Methods EPH and VPH.
- Prepared this report summarizing results of Phase II ESA activities.

4.0 FIELD ACTIVITIES

GeoEngineers mobilized to the site on June 7, 2011 to conduct Phase II ESA subsurface assessment activities. Underground utility location notification was completed by Ecology prior to our arrival. GeoEngineers advanced 10 borings (DP-1 through DP-10) to depths ranging between 16 and 20 feet bgs using a direct-push Geoprobe on June 7 and 8, 2011. Borings DP-1 and DP-5 were advanced between the building and the former remedial excavation sample location DXNE. Boring locations DP-1 through DP-3 were advanced to about 16 feet bgs and DP-4 and DP-5 were advance to about 20 feet bgs. Borings DP-6 through DP-10 were drilled near former remedial excavation sample locations DXS and DXSE. Borings DP-6 and DP-8 through DP-10 were advanced to about 16 feet bgs; DP-7 was advanced to about 20 feet bgs.

Soil types encountered generally consisted of brown sand with silt and varying amounts of gravel. Groundwater generally was encountered during drilling at about 15 feet bgs. Boring logs for the assessment are included in Appendix A and boring locations are depicted in Figure 2.

Soil samples from each of the borings were field-screened for the potential presence of petroleum contamination by visual examination, headspace vapor monitoring with a PID, and water-sheen testing. Procedures for field-screening and sampling are provided in Appendix A. Field-screening observations did not indicate the likely presence of contamination in soil samples collected from borings DP-1 through DP-5 or DP-8. Headspace vapor measurements of up to 105 parts per million (ppm) and moderate and/or heavy sheens were observed in samples collected from borings DP-6, DP-7, DP-9 and DP-10. Twenty-two samples from depths ranging between 9 to 19 feet bgs were submitted to TestAmerica for Chemical analysis; chemical analytical results are discussed below.

Boring locations were backfilled with bentonite and the surface was patched with concrete. Soil cuttings were placed in a 55-gallon steel drum, labeled, and stored in the fenced area near borings DP-1 and DP-2 pending disposal.

5.0 CHEMICAL ANALYTICAL RESULTS

Each of the 22 samples submitted for analysis were analyzed for GRPH, DRPH, and ORPH by the methods listed in **Section 3.0**. The laboratory report indicates GRPH, DRPH, and ORPH either were

not detected above method reporting limits or were detected at concentrations less than MTCA Method A cleanup levels for unrestricted land use (MTCA cleanup levels) in the samples submitted from borings DP-1 through DP-5 and DP-8.

GRPH was detected at concentrations greater than MTCA cleanup levels in samples collected from borings DP-6, DP-7, DP-9 and DP-10 at depths between 9 and 18 feet bgs. GRPH concentrations in these four borings ranged between 42.6 milligrams per kilogram (mg/kg) and 8,160 mg/kg. GRPH concentrations in at least one sample each from borings DP-6, DP-7, DP-9 and DP-10 are greater than the MTCA cleanup levels.

DRPH was detected in borings DP-1, DP-3 through DP-7, DP-9 and DP-10 at depths between 9 and 18 feet bgs. Detected concentrations of DRPH in these borings ranged between 24 mg/kg and 2,570 mg/kg. With the exception of the sample analyzed from boring DP-10 at a depth of 15 feet bgs, detected DRPH concentrations were less than the MTCA cleanup level. The detected DRPH concentration in sample DP-10(15) was greater than the MTCA cleanup level of 2,000 mg/kg.

ORPH was detected in samples collected from borings DP-1 and DP-4 at depths of 9 and 8 feet bgs, respectively. Detected concentrations of ORPH were less than the MTCA cleanup level.

Samples collected from borings DP-6 and DP-7 at depths of 10 and 15 feet bgs, respectively, were additionally analyzed for BTEX and n-hexane using EPA Method 8260B and aliphatics and aromatics using Ecology Methods EPH and VPH. Benzene, ethylbenzene, and n-hexane were not detected in the samples at concentrations greater than their respective reporting limits. Toluene was detected in the sample from boring DP-7 and xylenes were detected in both samples. Detected concentrations of toluene in DP-7 and xylenes in DP-6 were less than MTCA cleanup levels; the detected concentration of total xylenes in the sample collected from DP-7 was greater than the MTCA cleanup level. Total VPH and EPH concentrations in the sample from boring DP-6 were 120 and 1,040 mg/kg, respectively, and in the sample from DP-7 were 4,800 and 314 mg/kg, respectively.

Typically, a correlation between total petroleum hydrocarbon and total EPH and total VPH concentrations is observed. However, total petroleum hydrocarbon concentrations (the sum of GRPH and DRPH) were detected in sample DP-6 (10) about 8,110 mg/kg greater than the sum of total EPH and total VPH concentrations. Additionally, total petroleum hydrocarbon concentrations (the sum of GRPH and DRPH) were detected in sample DP-7 (15) at a concentration about 2,094 mg/kg less than the sum of total EPH and total VPH concentrations. The variability between these sample results is attributed to the non-homogenous nature of soil samples, analytical methodology, and the fact that different aliquots of sample were used to run each analysis.

The laboratory report is included in Appendix B; chemical analytical results are summarized in Soil Chemical Analytical Results, Tables 1 and 2.

6.0 CONCLUSIONS

GeoEngineers conducted Phase II ESA field activities at the former Arden's Country Store located at 1458 Old Highway 97 in Malott, Washington. GeoEngineers advanced 10 direct-push soil borings

to depths between about 16 and 20 feet bgs near historical excavation sample locations to assess subsurface conditions on June 7 and 8, 2011. Groundwater was encountered in the borings at about 15 feet bgs.

Field-screening observations from soil recovered from the borings indicated the likely presence of contamination in borings DP-6, DP-7, DP-9, and DP-10. Chemical analytical results from samples collected from these borings between approximately 10 and 18 feet bgs, indicate GRPH is present at concentrations greater than MTCA cleanup levels. Additionally, DRPH was detected in boring DP-10 and xylenes were detected in boring DP-7 at concentrations greater than their respective MTCA cleanup levels.

Field-screening and analytical results of soil samples collected during Phase II ESA activities, indicate that subsurface soil in the area between former remedial excavation confirmation samples DXS and DXSE and the former Arden's Country Store is contaminated with petroleum-range (GRPH and DRPH) hydrocarbons from about 10 feet bgs to the groundwater interface (about 15 feet bgs during field activities). These findings indicate groundwater contamination also is likely in the southern portion of the site.

The extent of the impacted soil to the west of DP-7 (within the apparent former limits of the remedial excavation) is assumed to be limited because this material was treated prior to backfilling. However, contaminated groundwater present in the adjacent subsurface, could potentially have re-contaminated subsurface soil in the former remedial excavation. The extent of the soil contamination to the south (right-of way and B and O Road) and to the east (the former store) is undefined at this time. It appears likely that contamination in this portion of the property resulted from releases from the East and West Tanks that were removed in 1988 and are not related to the dispenser release that was remediated in 1993.

Additional soil assessment and groundwater monitoring is required to define the extent of soil and groundwater petroleum contamination. Prior to conducting additional groundwater monitoring, at least one additional groundwater monitoring well should be installed in the area near the southwest corner of the store building.

7.0 LIMITATIONS

We have prepared this report for the exclusive use of Ecology and their authorized agents.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to "Report Limitations and Guidelines for Use", Appendix C for additional information pertaining to use of this report.

8.0 REFERENCES

Ecology and Environment, Inc., "Final Remedial Investigation Report; Arden's Country Store; Malott, Washington," February 1992.

ECOVA Corporation, "UST Decommissioning, Site Characterization and Cleanup Action Report for WDOE Arden's Country Store Site Cleanup Action," June 1993.

Washington State Department of Ecology, Central Region Office, Toxics Cleanup Program, "Periodic Review; Arden's Country Store," July 29, 2008.

TABLES

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Table 1

Soil Chemical Analytical Results - Petroleum Hydrocarbons and VOCs[1]

Arden's Country Store

Malott, Washington

Sample Identification[2]	Date Collected	Depth (feet below ground surface)	Petroleum Hydrocarbons (mg/kg)			Volatile Organic Compounds[5] (µg/kg)				
			Gasoline[3]	Diesel[4]	Oil[4]	Benzene	Toluene	Ethylbenzene	Xylenes[6]	n-Hexane
DP-1(9)	06/07/11	9	<4.95	24	124	NT	NT	NT	NT	NT
DP-1(15)	06/07/11	15	<6.31	<11.7	<29.3	NT	NT	NT	NT	NT
DP-2(10)	06/07/11	10	<5.44	<10.5	<26.2	NT	NT	NT	NT	NT
DP-2(15)	06/07/11	15	<6.61	<11.9	<29.8	NT	NT	NT	NT	NT
DP-3(9)	06/07/11	9	<6.21	143	<26.5	NT	NT	NT	NT	NT
DP-3(15)	06/07/11	15	<6.79	33.5	<29.0	NT	NT	NT	NT	NT
DP-4(8)	06/07/11	8	<5.43	74.8	370	NT	NT	NT	NT	NT
DP-4(15)	06/07/11	15	<6.18	<11.1	<27.7	NT	NT	NT	NT	NT
DP-5(10)	06/07/11	10	<6.97	272	<30.9	NT	NT	NT	NT	NT
DP-5(15)	06/07/11	15	<6.53	<11.9	<29.7	NT	NT	NT	NT	NT
DP-5(19)	06/07/11	19	<5.99	<11.8	<29.6	NT	NT	NT	NT	NT
DP-6(10)	06/08/11	10	**8,160**	1,110	<28.1	<1.2	<2.3	<1.2	67	<5.9
DP-6(14)	06/08/11	14	**7,300**	1,130	<27.2	NT	NT	NT	NT	NT
DP-7(11)	06/08/11	11	**175**	163	<29.6	NT	NT	NT	NT	NT
DP-7(15)	06/08/11	15	**2,520**	499	<26.0	<1.0	6.7	<510	**590,000**	<5.2
DP-7(18)	06/08/11	18	**4,020**	874	<29.6	NT	NT	NT	NT	NT
DP-8(9)	06/08/11	9	11.8	<11.7	<29.2	NT	NT	NT	NT	NT
DP-8(15)	06/08/11	15	<6.65	<12.1	<30.3	NT	NT	NT	NT	NT
DP-9(10)	06/08/11	10	**417**	908	<26.9	NT	NT	NT	NT	NT
DP-9(15)	06/08/11	15	**324**	1,230	<30.8	NT	NT	NT	NT	NT
DP-10(10)	06/08/11	10	42.6	284	<27.9	NT	NT	NT	NT	NT
DP-10(15)	06/08/11	15	**789**	**2,570**	<292	NT	NT	NT	NT	NT
MTCA Method A Cleanup Levels[7]			100/30 [8]	2,000	2,000	30	7,000	6,000	9,000	NE

Notes:

[1]Samples submitted to TestAmerica Inc. in Spokane Valley , Washington.

[2]Approximate sample locations depicted on Figure 2: Site Plan.

[3]Gasoline-range petroeum hydrocarbons analyzed using Northwest Method NWTPH-Gx.

[4]Diesel- and oil-range petroeum hydrocarbons analyzed using Northwest Method NWTPH-Dx with silica gel cleanup.

[5]Volatile organic compounds analyzed using Environmental Protection Agency (EPA) Method 8260B.

[6]Total xylenes includes o-xylene, m-xylene, and p-xylene.

[7]Model Toxics Control Act (MTCA) Method A unrestricted land use cleanup levels.

[8]Gasoline-range cleanup level is 100 mg/kg when benzene is not detected and 30 mg/kg when benzene is present.

mg/kg = milligrams per kilogram; µg/kg = micrograms per kilogram; bgs = below ground surface; NT = Not Tested; NE = Not Established

Bolding indicates analyte was detected at a concentration greater than the MTCA Method A cleanup level.

Table 2

Soil Chemical Analytical Results - VPH and EPH[1]

Arden's Country Store

Malott, Washington

Sample ID[2]	DP-6(10)	DP-7(15)
Date Collected	**06/08/11**	**06/08/11**
Sample Depth (feet bgs)	**10**	**15**
Volatile Petroleum Hydrocarbons[3] (mg/kg)		
C5-C6 Aliphatics	<2.2	<130
C6-C8 Aliphatics	3.0	<130
C8-C10 Aliphatics	7.9	520
C10-C12 Aliphatics	24	950
C8-C10 Aromatics	14	1,200
C10-C12 Aromatics	41	1,700
C12-C13 Aromatics	29	310
Total VPH	120	4,800
Extractable Petroleum Hydrocarbons[4] (mg/kg)		
C10-C12 Aliphatics	200	46
C12-C16 Aliphatics	170	34
C16-C21 Aliphatics	32	15
C21-C34 Aliphatics	<5.8	<5.1
C10-C12 Aromatics	290	150
C12-C16 Aromatics	310	60
C16-C21 Aromatics	31	8.4
C21-C34 Aromatics	6.6	<5.1
Total EPH	1039.6	313.4

Notes:

[1]Samples submitted to TestAmerica Inc. in Spokane Valley , Washington.

[2]Approximate sample locations depicted on Figure 2: Site Plan.

[3]Volatile Petroleum Hydrocarbons (VPH) analyzed using Northwest Method NWTPH/VPH.

[4]Extractable Petroleum Hydrocarbons (EPH) analyzed using Northwest Method NWTPH/EPH.

Mg/kg = milligrams per kilogram; bgs = below ground surface

FIGURES

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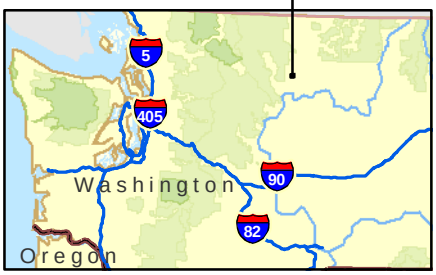

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Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps, Street Maps 2005, ESRI Shaded Relief

Transverse Mercator, Zone 11 N North, North American Datum 1983
North arrow oriented to grid north

Vicinity Map

Arden's Country Store
Malott, Washington

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Figure 1

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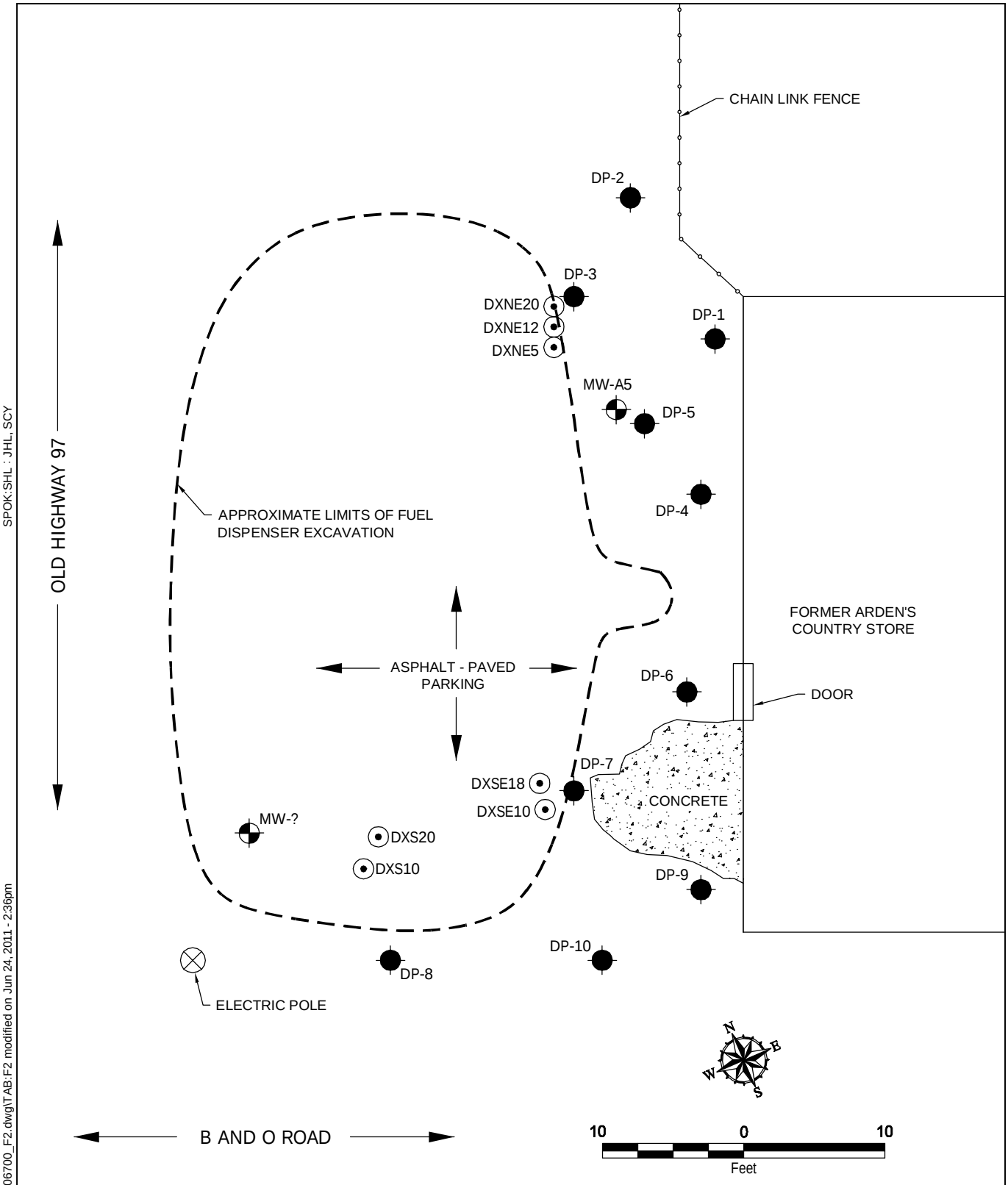

LEGEND

MW	⊕	Monitoring / Remediation Well
DP-1	●	June 2011 Direct-Push Boring Location
DXS	⊙	Historic Confirmation Sample Locations

Site Plan

Arden's Country Store
Malott, Washington

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Figure 2

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APPENDICES

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APPENDIX A
Field Procedures and Boring Logs

APPENDIX A
FIELD METHODS

Soil Sample Collection

Environmental Protection Agency (EPA) 5035 sampling methods were used to collect the soil samples for volatile organic compounds (VOCs) analysis using EPA Method 8260B. The soil samples were placed in laboratory-supplied jars and filled to minimize headspace. The soil samples were stored in a chilled cooler until delivery to the analytical laboratory.

Subsurface conditions at the Arden's Country Store were explored at select locations on June 7 and 8, 2011 by advancing 10 borings (DP-1 to DP-10) at the approximate locations shown on Figure 2. The borings were advanced to depths in the range of about 16 to 20 feet below existing site grade using a GeoEngineers' direct-push drill rig. Boring locations were established in the field by taping from existing site features. Consequently, exploration locations should be considered accurate to the degree implied by the method used.

The direct-push boring operations were monitored by staff from our firm who examined and classified the soil encountered; obtained soil samples and maintained a continuous log of exploration. Soil encountered in the borings was classified in general accordance with ASTM D 2488 and the classification chart listed in Key to Exploration Logs, Figure A-1. Logs of the borings are presented in Figures A-2 through A-11. The logs are based on interpretation of the field data and indicate the depth at which subsurface materials or their characteristics change, although these changes might actually be gradual.

Field Screening of Soil Samples

GeoEngineers' field representative performed field-screening tests on soil samples obtained from the borings. Field screening results were used as a general guideline to assess areas of possible petroleum-related contamination. The field screening methods used include: 1) visual screening; 2) water-sheen screening; and 3) headspace-vapor screening using a MiniRAE Photo Ionization Detector (PID) calibrated to isobutylene.

Visual screening consisted of observing soil for stains indicative of metal- or petroleum-related contamination. Water-sheen screening involved placing soil in a pan of water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheens observed are classified as follows:

No Sheen (NS)	No visible sheen on the water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen (MS)	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involved placing a soil sample in a plastic sample bag. Air was captured in the bag, and the bag was shaken to expose the soil to the air trapped in the bag. Headspace vapor screening targeted volatile petroleum hydrocarbon compounds. In this application, the PID measured concentration of organic vapors ionizable by a 10.6 electron volt (ev) lamp in the range between 1.0 and 2,000 parts per million (ppm), with a resolution of +/- 2 ppm.

Field screening results can be site specific. The effectiveness of field screening can vary with temperature, moisture content, organic content, soil type and type and age of contaminant. The presence or absence of a sheen or headspace vapors does not necessarily indicate the presence or absence of contaminants.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	CC	Cement Concrete
	AC	Asphalt Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Measured groundwater level in exploration, well, or piezometer

Groundwater observed at time of exploration

Perched water observed at time of exploration

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
6/7/2011	6/7/2011	16	SHL / JRH	GeoEngineers, Inc.	Direct Push

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe

Easting (X) Northing (Y)	System Datum	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)
		6/7/2011	15.0	

Notes:

Elevation (feet) / Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample: Sample No. Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0	30		1			SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	
								NS	<1	
	36		2					NS	<1	
5							Grades to with gravel (dense, moist)			
								NS	<1	
	40		3					NS	<1	
			CA					NS	<1	DP-1 (9)
10						SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<1	
	36		4					NS	<1	
						SM	Brown silty fine to medium sand (medium dense, moist)	NS	<1	
						SP	Brown fine to medium sand trace silt (medium dense, wet)	NS	<1	
15			CA	▽			Brown fine to medium sand with trace silt (medium dense, wet)			DP-1 (15)

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-1

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-2
Sheet 1 of 1

Drilled	Start	End	Total Depth (ft)	Logged By	Driller	Drilling Method
	6/7/2011	6/7/2011	16	SHL	GeoEngineers, Inc.	Direct Push
				Checked By JRH		

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe

Easting (X) Northing (Y)	System Datum	Groundwater		
		Date Measured	Depth to Water (ft)	Elevation (ft)
Notes:		6/7/2011	15.0	

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample: Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		15		1			SP-SM	Brown fine to medium sand with silt and gravel (medium dense, moist)	NS	<1	
			25		2					NS	<1	
	5							SW-SM	Brown fine to coarse sand with silt and gravel (medium dense, moist)	NS	<1	
			36		3					NS	<1	
										NS	<1	
	10				CA					NS	<1	DP-2 (10)
			36		4					NS	<1	
										NS	<1	
								SP-SM	Brown fine to medium sand with silt (medium dense)	NS	<1	
	15				CA	▽			Grades to wet			DP-2 (15)

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-2

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-3
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
6/7/2011	6/7/2011	16	SHL / JRH	GeoEngineers, Inc.	Direct Push

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		6/7/2011	15.0	

Notes:

Elevation (feet) / Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0		28			1			SP-SM	Brown fine to medium sand with silt and gravel (medium dense, moist)	NS	<1	
								SW-SM	Brown fine to coarse sand with silt and gravel (medium dense, moist)	NS	<1	
		30			2			SP-SM	Brown fine to medium sand with silt and gravel (medium dense, moist)	NS	<1	
5										NS	<1	
								SW-SM	Brown fine to coarse sand with silt and gravel (medium dense, moist)			
		15			3					NS	<1	
					CA			SP-SM	Brown fine to medium sand with silt (medium dense, moist)	SS	<1	DP-3 (9)
10												
		48			4			SW-SM	Brown fine to coarse sand with silt and gravel (dense, moist)	NS	<1	
								SP-SM	Brown fine to medium sand with silt and gravel (dense, moist)	NS	<1	
								SW-SM	Brown fine to coarse sand with silt and gravel (dense, moist)	NS	<1	
15					CA	▽			Grades to wet			DP-3 (16)

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-3

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-4
Sheet 1 of 1

Drilled: Start 6/7/2011 End 6/7/2011	Total Depth (ft): 20	Logged By: SHL Checked By: JRH	Driller: GeoEngineers, Inc.	Drilling Method: Direct Push	
Surface Elevation (ft) Vertical Datum: Undetermined		Hammer Data:		Drilling Equipment: Geoprobe	
Easting (X) Northing (Y):		System Datum:		Groundwater: Date Measured 6/7/2011; Depth to Water (ft) 15.0; Elevation (ft)	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample: Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		12		1			SW-SM	Brown fine to coarse sand with silt (dense, moist)	NS	<1	
	5		9		2				Grades to with gravel	NS	<1	
			8		CA					NS	<1	DP-4 (8)
	10		48		4					NS	<1	
								SM	Brown silty fine to medium sand (dense, moist)	NS	<1	
								SW-SM	Brown fine to coarse sand with silt and gravel (dense, moist)	NS	<1	
								SM	Brown silty fine to medium sand (dense, moist)			
	15				CA	▽		SP	Brown fine to medium sand with trace silt (dense, moist)	NS	<1	DP-4 (15)
			48		5				Grades to wet	NS	<1	
								SP-SW	Brown fine to medium sand with silt and gravel (dense, wet)	NS	<1	
										NS	<1	
	20									NS	<1	

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-4

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-5
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
6/7/2011	6/7/2011	20	SHL / JRH	GeoEngineers, Inc.	Direct Push

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		6/7/2011	15.5	

Notes:

Elevation (feet) / Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample / Sample No. Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0											
		40		1			SP-SM	Brown fine to medium sand with silt and gravel (dense, moist)	NS	<1	
									NS	<1	
									NS	<1	
		36		2					NS	<1	
5							SW-SM	Brown fine to coarse sand with silt and gravel (medium dense, moist)	NS	<1	
									NS	<1	
		36		3					NS	<1	
							SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	
10				CA					NS	<1	DP-5 (10)
		48		4			SW-SM	Brown fine to coarse sand with silt and gravel (medium dense, moist)	NS	<1	
									NS	<1	
							SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	
15				CA	▽			Grades to wet	NS	<1	DP-5 (15)
		48		5			SW-SM	Brown fine to coarse sand with silt (medium dense, wet)	NS	<1	
									NS	<1	
									NS	<1	
20				CA					NS	<1	DP-5 (19)

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-5

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-6
Sheet 1 of 1

Drilled Start 6/8/2011	End	Total Depth (ft) 16	Logged By SHL / Checked By JRH	Driller GeoEngineers, Inc.	Drilling Method Direct Push
Surface Elevation (ft) / Vertical Datum: Undetermined		Hammer Data		Drilling Equipment: Geoprobe	
Easting (X) / Northing (Y)		System Datum		Groundwater — Date Measured: 6/8/2011; Depth to Water (ft): 15.0; Elevation (ft)	
Notes:					

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		32			1			SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<1	
											NS	<1	
											NS	<1	
			16			2			SW	Brown fine to coarse sand with trace silt and gravel (dense, moist)	NS	<1	
	5												
			36			3					NS	<1	
											NS	<1	
	10					CA			SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	DP-6 (10)
			48			4					NS	<1	
											HS	41.2	DP-6 (14)
						CA	▽						
	15										NS	<1	

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-6

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-7
Sheet 1 of 1

Drilled Start 6/9/2011 End	Total Depth (ft) 20	Logged By SHL / Checked By JRH	Driller GeoEngineers, Inc.	Drilling Method Direct Push
Surface Elevation (ft) / Vertical Datum: Undetermined		Hammer Data		Drilling Equipment: Geoprobe
Easting (X) / Northing (Y)		System Datum		Groundwater: Date Measured 6/9/2011; Depth to Water (ft) 15.0; Elevation (ft)
Notes:				

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		26			1			SP-SM	Brown fine to medium sand with silt and gravel (medium dense, moist)	NS	<1	
											NS	<1	
			32			2					NS	<1	
	5								SM	Brown silty fine to medium sand (medium dense, moist)	NS	<1	
									SP-SM	Brown fine to medium sand with silt and gravel (medium dense, moist)	NS	<1	
			36			3					NS	<1	
											NS	<1	
	10										NS	<1	
						CA							DP-7 (11)
			48			4					NS	<1	
											MS	<1	
											MS	27.5	
	15						▽				MS	<1	DP-7 (15)
						CA							
			48			5					MS	<1	
											MS	105	
						CA							DP-7 (18)
											MS	18.6	
	20												

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-7

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-8
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
6/8/2011	6/8/2011	16	SHL / JRH	GeoEngineers, Inc.	Direct Push

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		6/8/2011	15.0	

Notes:

Elevation (feet) / Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample: Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0	29		1			SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<1	
						SW	Brown fine to coarse sand with trace silt (medium dense, moist)	NS	<1	
	36		2					NS	<1	
5						SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	
						SM	Brown fine to medium sand (medium dense, moist)	NS	<1	
						SP-SM	Brown fine to medium sand with silt (medium dense, moist)			
	30		3					NS	<1	
			CA					NS	<1	DP-8 (9)
10										
	48		4					NS	<1	
						SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<1	
				▽				NS	<1	
15			CA			SM	Brown silty fine to medium sand (medium dense, wet)			DP-8 (15)

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-8

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-9
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
6/8/2011	6/8/2011	16	SHL / JRH	GeoEngineers, Inc.	Direct Push

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		6/8/2011	15.0	

Notes:

Elevation (feet) / Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0								SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<1	
		30			1					NS	<1	
										NS	<1	
								SW	Brown fine to coarse sand with trace silt (medium dense, moist)	NS	<1	
		24			2							
5								SM	Brown silty fine to medium sand (medium dense, moist)	NS	<1	
								SP-SM	Brown fine to medium sand with silt (medium dense, moist)			
		32			3					NS	<1	
										NS	<1	
10										NS	<1	DP-9 (10)
					CA							
		36			4			SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	
										NS	<1	
								SM	Brown silty fine to medium sand (medium dense, moist)	NS	72.5	
15						▽			Grades to wet			DP-9 (15)
					CA							

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-9

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-10
Sheet 1 of 1

Drilled	Start 6/8/2011	End 6/8/2011	Total Depth (ft) 16	Logged By SHL / Checked By JRH	Driller GeoEngineers, Inc.	Drilling Method Direct Push
Surface Elevation (ft) Vertical Datum	Undetermined		Hammer Data		Drilling Equipment	Geoprobe
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured	Depth to Water (ft) 15.0 / Elevation (ft)
Notes:					6/8/2011	

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample: Sample No. / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0	30		1			SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<1	
									NS	<1	
		26		2			SP-SM	Brown fine to medium sand with silt (medium dense, moist)	NS	<1	
	5								NS	<1	
		32		3					NS	<1	
							SM	Brown silty fine to medium sand (medium dense, moist)	NS	<1	
	10			CA							DP-10 (10)
							SP-SM	Brown fine to medium sand with silt and gravel (medium dense, moist)			
		36		4					NS	<1	
									NS	<1	
							SM	Brown silty fine to medium sand (medium dense, moist)	MS	80.0	
	15			CA	▽			Grades to wet			DP-10 (15)

Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Direct Push DP-10

GeoEngineers

Project: Arden's Country Store, Environmental Site Assessment
Project Location: Malott, Washington
Project Number: 0504-067-00

Figure A-11
Sheet 1 of 1

APPENDIX B
Chemical Analytical Laboratory Reports

APPENDIX B
CHEMICAL ANALYTICAL DATA

Samples

Chain-of-custody procedures were followed during the transport of the field samples to TestAmerica Inc. located in Spokane Valley, Washington. The samples were held in cold storage pending extraction and/or analysis. The analytical results and quality control records are included in this appendix.

Analytical Data Review

The laboratory maintains an internal quality assurance/quality control (QA/QC) program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. Any data quality exceptions documented by the accredited laboratory were reviewed by GeoEngineers and are addressed in the data quality exception section of this appendix.

Analytical Data Review Summary

We reviewed the laboratory internal quality assurance/quality control (QA/QC) in the context of data quality goals. Based on our review, in our opinion, the quality of the analytical data is acceptable for the intended use.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SUF0067
Client Project/Site: 0504-067-00
Client Project Description: Malott

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: John Haney

Authorized for release by:
06/21/2011 04:41:10 PM

Randee Decker
Project Manager
Randee.Decker@testamericainc.com

Table of Contents

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Job ID: SUF0067

Laboratory: TestAmerica Seattle

Narrative

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA - Method 8260B
Surrogate recovery for the following sample was outside control limits: SUF0067-31 (580-26783-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. The data have been "XI" flagged and reported.

The continuing calibration verification (CCV) for Hexane recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been "^" flagged and reported.

Internal standard responses were outside of acceptance limits for the following sample: SUF0067-31 (580-26783-2). The sample shows evidence of matrix interference.

No other analytical or quality issues were noted.

GC Semi VOA - Method NWTPH/EPH
The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 87986 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The data have been "F" flagged and reported.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SUF0067-01	DP-2 (10)	Soil	06/07/11 13:30	06/09/11 08:45
SUF0067-02	DP-3 (9)	Soil	06/07/11 14:20	06/09/11 08:45
SUF0067-04	DP-3 (15)	Soil	06/07/11 14:30	06/09/11 08:45
SUF0067-06	DP-2 (15)	Soil	06/07/11 13:40	06/09/11 08:45
SUF0067-10	DP-1 (15)	Soil	06/07/11 13:05	06/09/11 08:45
SUF0067-11	DP-4 (15)	Soil	06/07/11 15:20	06/09/11 08:45
SUF0067-13	DP-5 (10)	Soil	06/07/11 16:10	06/09/11 08:45
SUF0067-17	DP-5 (15)	Soil	06/07/11 16:15	06/09/11 08:45
SUF0067-19	DP-4 (8)	Soil	06/07/11 15:00	06/09/11 08:45
SUF0067-21	DP-5 (19)	Soil	06/07/11 16:25	06/09/11 08:45
SUF0067-22	DP-6 (10)	Soil	06/08/11 07:30	06/09/11 08:45
SUF0067-23	DP-6 (14)	Soil	06/08/11 07:45	06/09/11 08:45
SUF0067-28	DP-7 (11)	Soil	06/08/11 08:15	06/09/11 08:45
SUF0067-31	DP-7 (15)	Soil	06/08/11 08:30	06/09/11 08:45
SUF0067-32	DP-7 (18)	Soil	06/08/11 08:55	06/09/11 08:45
SUF0067-33	DP-8 (9)	Soil	06/08/11 09:25	06/09/11 08:45
SUF0067-34	DP-8 (15)	Soil	06/08/11 09:40	06/09/11 08:45
SUF0067-35	DP-10 (15)	Soil	06/08/11 10:45	06/09/11 08:45
SUF0067-37	DP-10 (10)	Soil	06/08/11 10:35	06/09/11 08:45
SUF0067-39	DP-9 (10)	Soil	06/08/11 10:00	06/09/11 08:45
SUF0067-40	DP-9 (15)	Soil	06/08/11 10:15	06/09/11 08:45
SUF0067-41	DP-1 (9)	Soil	06/07/11 12:55	06/09/11 08:45

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
I	Indicates the presence of an interference, recovery is not calculated.
X	Surrogate is outside control limits

Fuels

Qualifier	Qualifier Description
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

GC Volatiles

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Client Sample ID: DP-2 (10)

Lab Sample ID: SUF0067-01

Date Collected: 06/07/11 13:30
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 95.5

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.5		mg/kg dry	☼	06/09/11 19:34	06/09/11 20:53	1.00
Heavy Oil Range Hydrocarbons	ND		26.2		mg/kg dry	☼	06/09/11 19:34	06/09/11 20:53	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*98.7*		*50 - 150*	*06/09/11 19:34*	*06/09/11 20:53*	*1.00*
p-Terphenyl-d14	*105*		*50 - 150*	*06/09/11 19:34*	*06/09/11 20:53*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.44		mg/kg dry	☼	06/09/11 12:34	06/09/11 16:25	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*96.0*		*50 - 150*	*06/09/11 12:34*	*06/09/11 16:25*	*1.00*

Client Sample ID: DP-3 (9)

Lab Sample ID: SUF0067-02

Date Collected: 06/07/11 14:20
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 94.3

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**143**		10.6		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:08	1.00
Heavy Oil Range Hydrocarbons	ND		26.5		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:08	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*88.4*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:08*	*1.00*
p-Terphenyl-d14	*97.9*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:08*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.21		mg/kg dry	☼	06/09/11 12:34	06/09/11 16:50	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*106*		*50 - 150*	*06/09/11 12:34*	*06/09/11 16:50*	*1.00*

Client Sample ID: DP-3 (15)

Lab Sample ID: SUF0067-04

Date Collected: 06/07/11 14:30
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 86.2

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**33.5**		11.6		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:23	1.00
Heavy Oil Range Hydrocarbons	ND		29.0		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:23	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*98.3*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:23*	*1.00*
p-Terphenyl-d14	*106*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:23*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.79		mg/kg dry	☼	06/09/11 12:34	06/09/11 17:15	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*102*		*50 - 150*	*06/09/11 12:34*	*06/09/11 17:15*	*1.00*

Client Sample ID: DP-2 (15)

Lab Sample ID: SUF0067-06

Date Collected: 06/07/11 13:40

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 83.9

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		11.9		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:39	1.00
Heavy Oil Range Hydrocarbons	ND		29.8		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:39	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*52.1*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:39*	*1.00*
p-Terphenyl-d14	*101*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:39*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.61		mg/kg dry	☼	06/09/11 12:34	06/09/11 17:40	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*98.8*		*50 - 150*	*06/09/11 12:34*	*06/09/11 17:40*	*1.00*

Client Sample ID: DP-1 (15)

Lab Sample ID: SUF0067-10

Date Collected: 06/07/11 13:05

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 85.4

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		11.7		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:54	1.00
Heavy Oil Range Hydrocarbons	ND		29.3		mg/kg dry	☼	06/09/11 19:34	06/09/11 21:54	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*97.1*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:54*	*1.00*
p-Terphenyl-d14	*106*		*50 - 150*	*06/09/11 19:34*	*06/09/11 21:54*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.31		mg/kg dry	☼	06/09/11 12:34	06/09/11 18:05	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*102*		*50 - 150*	*06/09/11 12:34*	*06/09/11 18:05*	*1.00*

Client Sample ID: DP-4 (15)

Lab Sample ID: SUF0067-11

Date Collected: 06/07/11 15:20

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 90.1

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		11.1		mg/kg dry	☼	06/09/11 19:34	06/09/11 22:40	1.00
Heavy Oil Range Hydrocarbons	ND		27.7		mg/kg dry	☼	06/09/11 19:34	06/09/11 22:40	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*95.8*		*50 - 150*	*06/09/11 19:34*	*06/09/11 22:40*	*1.00*
p-Terphenyl-d14	*105*		*50 - 150*	*06/09/11 19:34*	*06/09/11 22:40*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.18		mg/kg dry	☼	06/09/11 12:34	06/09/11 18:31	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*100*		*50 - 150*	*06/09/11 12:34*	*06/09/11 18:31*	*1.00*

Client Sample ID: DP-5 (10)

Lab Sample ID: SUF0067-13

Date Collected: 06/07/11 16:10

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 80.9

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**272**		12.4		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:11	1.00
Heavy Oil Range Hydrocarbons	ND		30.9		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:11	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*98.8*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:11*	*1.00*
p-Terphenyl-d14	*105*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:11*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.97		mg/kg dry	☼	06/09/11 12:34	06/09/11 19:21	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*96.3*		*50 - 150*	*06/09/11 12:34*	*06/09/11 19:21*	*1.00*

Client Sample ID: DP-5 (15)

Lab Sample ID: SUF0067-17

Date Collected: 06/07/11 16:15

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 84.2

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		11.9		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:26	1.00
Heavy Oil Range Hydrocarbons	ND		29.7		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:26	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*94.0*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:26*	*1.00*
p-Terphenyl-d14	*107*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:26*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.53		mg/kg dry	☼	06/09/11 12:34	06/09/11 20:10	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*90.2*		*50 - 150*	*06/09/11 12:34*	*06/09/11 20:10*	*1.00*

Client Sample ID: DP-4 (8)

Lab Sample ID: SUF0067-19

Date Collected: 06/07/11 15:00

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 94.8

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**74.8**		10.5		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:42	1.00
Heavy Oil Range Hydrocarbons	**370**		26.4		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:42	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*106*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:42*	*1.00*
p-Terphenyl-d14	*112*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:42*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.43		mg/kg dry	☼	06/09/11 12:34	06/09/11 21:25	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*96.1*		*50 - 150*	*06/09/11 12:34*	*06/09/11 21:25*	*1.00*

Client Sample ID: DP-5 (19)

Lab Sample ID: SUF0067-21

Date Collected: 06/07/11 16:25
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 84.4

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		11.8		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:57	1.00
Heavy Oil Range Hydrocarbons	ND		29.6		mg/kg dry	☼	06/09/11 19:34	06/09/11 23:57	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*95.2*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:57*	*1.00*
p-Terphenyl-d14	*105*		*50 - 150*	*06/09/11 19:34*	*06/09/11 23:57*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.99		mg/kg dry	☼	06/09/11 12:34	06/09/11 21:49	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*92.1*		*50 - 150*	*06/09/11 12:34*	*06/09/11 21:49*	*1.00*

Client Sample ID: DP-6 (10)

Lab Sample ID: SUF0067-22

Date Collected: 06/08/11 07:30
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 86.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.2		ug/Kg	☼	06/16/11 11:00	06/16/11 13:34	1
Toluene	ND		2.3		ug/Kg	☼	06/16/11 11:00	06/16/11 13:34	1
Ethylbenzene	ND		1.2		ug/Kg	☼	06/16/11 11:00	06/16/11 13:34	1
m-Xylene & p-Xylene	**33**		2.3		ug/Kg	☼	06/16/11 11:00	06/16/11 13:34	1
o-Xylene	**34**		1.2		ug/Kg	☼	06/16/11 11:00	06/16/11 13:34	1
n-Hexane	ND	^	5.9		ug/Kg	☼	06/16/11 11:00	06/16/11 13:34	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*101*		*80 - 120*	*06/16/11 11:00*	*06/16/11 13:34*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*	*06/16/11 11:00*	*06/16/11 13:34*	*1*
Ethylbenzene-d10	*103*		*70 - 120*	*06/16/11 11:00*	*06/16/11 13:34*	*1*
Trifluorotoluene (Surr)	*108*		*65 - 140*	*06/16/11 11:00*	*06/16/11 13:34*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 120*	*06/16/11 11:00*	*06/16/11 13:34*	*1*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**1110**		11.2		mg/kg dry	☼	06/09/11 19:34	06/10/11 00:12	1.00
Heavy Oil Range Hydrocarbons	ND		28.1		mg/kg dry	☼	06/09/11 19:34	06/10/11 00:12	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*88.8*		*50 - 150*	*06/09/11 19:34*	*06/10/11 00:12*	*1.00*
p-Terphenyl-d14	*107*		*50 - 150*	*06/09/11 19:34*	*06/10/11 00:12*	*1.00*

Method: NWTPH/VPH - Northwest - Volatile Pertroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C6 Aliphatics	ND		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1
C6-C8 Aliphatics	**3.0**		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1
C8-C10 Aliphatics	**7.9**		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1
C10-C12 Aliphatics	**24**		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1
C8-C10 Aromatics	**14**		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1
C10-C12 Aromatics	**41**		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1
C12-C13 Aromatics	**29**		2.2		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1

Client Sample ID: DP-6 (10)

Lab Sample ID: SUF0067-22

Date Collected: 06/08/11 07:30

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 86.4

Method: NWTPH/VPH - Northwest - Volatile Pertroleum Hydrocarbons (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total VPH	**120**		16		mg/Kg	☼	06/17/11 16:36	06/19/11 15:03	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*60 - 140*	*06/17/11 16:36*	*06/19/11 15:03*	*1*
BFB - PID	*109*		*60 - 140*	*06/17/11 16:36*	*06/19/11 15:03*	*1*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**8160**		253		mg/kg dry	☼	06/09/11 12:34	06/09/11 22:14	40.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*258*	*ZX*	*50 - 150*	*06/09/11 12:34*	*06/09/11 22:14*	*40.0*

Method: NWTPH/EPH - Northwest - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C12 Aliphatics	**200**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C12-C16 Aliphatics	**170**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C16-C21 Aliphatics	**32**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C21-C34 Aliphatics	ND		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C10-C12 Aromatics	**290**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C12-C16 Aromatics	**310**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C16-C21 Aromatics	**31**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1
C21-C34 Aromatics	**6.6**		5.8		mg/Kg	☼	06/15/11 09:40	06/16/11 16:25	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*60 - 140*	*06/15/11 09:40*	*06/16/11 16:25*	*1*
1-Chlorooctadecane	*78*		*60 - 140*	*06/15/11 09:40*	*06/16/11 16:25*	*1*

Client Sample ID: DP-6 (14)

Lab Sample ID: SUF0067-23

Date Collected: 06/08/11 07:45

Matrix: Soil

Date Received: 06/09/11 08:45

Percent Solids: 92

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**1130**		10.9		mg/kg dry	☼	06/09/11 19:34	06/10/11 00:28	1.00
Heavy Oil Range Hydrocarbons	ND		27.2		mg/kg dry	☼	06/09/11 19:34	06/10/11 00:28	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*129*		*50 - 150*	*06/09/11 19:34*	*06/10/11 00:28*	*1.00*
p-Terphenyl-d14	*105*		*50 - 150*	*06/09/11 19:34*	*06/10/11 00:28*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**7300**		507		mg/kg dry	☼	06/09/11 12:34	06/10/11 10:59	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*180*	*ZX*	*50 - 150*	*06/09/11 12:34*	*06/10/11 10:59*	*100*

Client Sample ID: DP-7 (11)

Lab Sample ID: SUF0067-28

Date Collected: 06/08/11 08:15
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 84.4

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**163**		11.8		mg/kg dry	☼	06/09/11 19:34	06/10/11 00:43	1.00
Heavy Oil Range Hydrocarbons	ND		29.6		mg/kg dry	☼	06/09/11 19:34	06/10/11 00:43	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*104*		*50 - 150*	*06/09/11 19:34*	*06/10/11 00:43*	*1.00*
p-Terphenyl-d14	*112*		*50 - 150*	*06/09/11 19:34*	*06/10/11 00:43*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**175**		6.74		mg/kg dry	☼	06/09/11 12:34	06/09/11 23:04	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*121*		*50 - 150*	*06/09/11 12:34*	*06/09/11 23:04*	*1.00*

Client Sample ID: DP-7 (15)

Lab Sample ID: SUF0067-31

Date Collected: 06/08/11 08:30
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 96.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/Kg	☼	06/16/11 11:00	06/16/11 13:58	1
Toluene	**6.7**		2.1		ug/Kg	☼	06/16/11 11:00	06/16/11 13:58	1
n-Hexane	ND	^	5.2		ug/Kg	☼	06/16/11 11:00	06/16/11 13:58	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*85*		*80 - 120*	*06/16/11 11:00*	*06/16/11 13:58*	*1*
Toluene-d8 (Surr)	*56*	*X I*	*80 - 120*	*06/16/11 11:00*	*06/16/11 13:58*	*1*
Ethylbenzene-d10	*90*		*70 - 120*	*06/16/11 11:00*	*06/16/11 13:58*	*1*
Trifluorotoluene (Surr)	*55*	*X I*	*65 - 140*	*06/16/11 11:00*	*06/16/11 13:58*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 120*	*06/16/11 11:00*	*06/16/11 13:58*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		510		ug/Kg	☼	06/20/11 16:19	06/21/11 02:54	5

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*100*		*80 - 120*	*06/20/11 16:19*	*06/21/11 02:54*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*	*06/20/11 16:19*	*06/21/11 02:54*	*5*
Ethylbenzene-d10	*104*		*70 - 120*	*06/20/11 16:19*	*06/21/11 02:54*	*5*
4-Bromofluorobenzene (Surr)	*99*		*70 - 120*	*06/20/11 16:19*	*06/21/11 02:54*	*5*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	**330000**		5100		ug/Kg	☼	06/20/11 16:19	06/21/11 15:31	50
m-Xylene & p-Xylene	**260000**		5100		ug/Kg	☼	06/20/11 16:19	06/21/11 15:31	50

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*103*		*80 - 120*	*06/20/11 16:19*	*06/21/11 15:31*	*50*
Toluene-d8 (Surr)	*103*		*80 - 120*	*06/20/11 16:19*	*06/21/11 15:31*	*50*
Ethylbenzene-d10	*102*		*70 - 120*	*06/20/11 16:19*	*06/21/11 15:31*	*50*
4-Bromofluorobenzene (Surr)	*95*		*70 - 120*	*06/20/11 16:19*	*06/21/11 15:31*	*50*

Client Sample ID: DP-7 (15)

Lab Sample ID: SUF0067-31

Date Collected: 06/08/11 08:30
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 96

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**499**		10.4		mg/kg dry	☼	06/09/11 19:34	06/10/11 01:29	1.00
Heavy Oil Range Hydrocarbons	ND		26.0		mg/kg dry	☼	06/09/11 19:34	06/10/11 01:29	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*106*		*50 - 150*	*06/09/11 19:34*	*06/10/11 01:29*	*1.00*
p-Terphenyl-d14	*116*		*50 - 150*	*06/09/11 19:34*	*06/10/11 01:29*	*1.00*

Method: NWTPH/VPH - Northwest - Volatile Pertroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C6 Aliphatics	ND		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
C6-C8 Aliphatics	ND		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
C8-C10 Aliphatics	**520**		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
C10-C12 Aliphatics	**950**		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
C8-C10 Aromatics	**1200**		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
C10-C12 Aromatics	**1700**		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
C12-C13 Aromatics	**310**		130		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50
Total VPH	**4800**		880		mg/Kg	☼	06/17/11 16:36	06/19/11 16:48	50

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*60 - 140*	*06/17/11 16:36*	*06/19/11 16:48*	*50*
BFB - PID	*106*		*60 - 140*	*06/17/11 16:36*	*06/19/11 16:48*	*50*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**2520**		62.5		mg/kg dry	☼	06/09/11 12:34	06/09/11 23:29	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*311*	*ZX*	*50 - 150*	*06/09/11 12:34*	*06/09/11 23:29*	*10.0*

Method: NWTPH/EPH - Northwest - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C12 Aliphatics	**46**		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C12-C16 Aliphatics	**34**		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C16-C21 Aliphatics	**15**		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C21-C34 Aliphatics	ND		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C10-C12 Aromatics	**150**		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C12-C16 Aromatics	**60**		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C16-C21 Aromatics	**8.4**		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1
C21-C34 Aromatics	ND		5.1		mg/Kg	☼	06/15/11 09:40	06/16/11 17:37	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*60 - 140*	*06/15/11 09:40*	*06/16/11 17:37*	*1*
1-Chlorooctadecane	*84*		*60 - 140*	*06/15/11 09:40*	*06/16/11 17:37*	*1*

Client Sample ID: DP-7 (18)

Lab Sample ID: SUF0067-32

Date Collected: 06/08/11 08:55
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 84.6

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**874**		11.8		mg/kg dry	☼	06/09/11 19:34	06/10/11 01:45	1.00
Heavy Oil Range Hydrocarbons	ND		29.6		mg/kg dry	☼	06/09/11 19:34	06/10/11 01:45	1.00

Client Sample ID: DP-7 (18)

Lab Sample ID: SUF0067-32

Date Collected: 06/08/11 08:55
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 84.6

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	105		50 - 150	06/09/11 19:34	06/10/11 01:45	1.00
p-Terphenyl-d14	113		50 - 150	06/09/11 19:34	06/10/11 01:45	1.00

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	4020		667		mg/kg dry	☼	06/09/11 12:34	06/10/11 11:23	100

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	128		50 - 150	06/09/11 12:34	06/10/11 11:23	100

Client Sample ID: DP-8 (9)

Lab Sample ID: SUF0067-33

Date Collected: 06/08/11 09:25
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 85.5

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		11.7		mg/kg dry	☼	06/09/11 19:34	06/10/11 02:00	1.00
Heavy Oil Range Hydrocarbons	ND		29.2		mg/kg dry	☼	06/09/11 19:34	06/10/11 02:00	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	103		50 - 150	06/09/11 19:34	06/10/11 02:00	1.00
p-Terphenyl-d14	107		50 - 150	06/09/11 19:34	06/10/11 02:00	1.00

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	11.8		6.94		mg/kg dry	☼	06/09/11 12:34	06/10/11 00:19	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	107		50 - 150	06/09/11 12:34	06/10/11 00:19	1.00

Client Sample ID: DP-8 (15)

Lab Sample ID: SUF0067-34

Date Collected: 06/08/11 09:40
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 82.4

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		12.1		mg/kg dry	☼	06/09/11 19:34	06/10/11 02:15	1.00
Heavy Oil Range Hydrocarbons	ND		30.3		mg/kg dry	☼	06/09/11 19:34	06/10/11 02:15	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	99.9		50 - 150	06/09/11 19:34	06/10/11 02:15	1.00
p-Terphenyl-d14	108		50 - 150	06/09/11 19:34	06/10/11 02:15	1.00

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.65		mg/kg dry	☼	06/09/11 12:34	06/10/11 01:08	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	87.7		50 - 150	06/09/11 12:34	06/10/11 01:08	1.00

Client Sample ID: DP-10 (15)

Lab Sample ID: SUF0067-35

Date Collected: 06/08/11 10:45
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 85.5

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	2570		117		mg/kg dry	☼	06/09/11 19:34	06/10/11 09:27	10.0
Heavy Oil Range Hydrocarbons	ND		292		mg/kg dry	☼	06/09/11 19:34	06/10/11 09:27	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*125*		*50 - 150*	*06/09/11 19:34*	*06/10/11 09:27*	*10.0*
p-Terphenyl-d14	*107*		*50 - 150*	*06/09/11 19:34*	*06/10/11 09:27*	*10.0*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	789		77.3		mg/kg dry	☼	06/09/11 12:34	06/10/11 11:49	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*165*	*ZX*	*50 - 150*	*06/09/11 12:34*	*06/10/11 11:49*	*10.0*

Client Sample ID: DP-10 (10)

Lab Sample ID: SUF0067-37

Date Collected: 06/08/11 10:35
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 89.5

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	284		11.2		mg/kg dry	☼	06/09/11 19:34	06/10/11 02:46	1.00
Heavy Oil Range Hydrocarbons	ND		27.9		mg/kg dry	☼	06/09/11 19:34	06/10/11 02:46	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*109*		*50 - 150*	*06/09/11 19:34*	*06/10/11 02:46*	*1.00*
p-Terphenyl-d14	*109*		*50 - 150*	*06/09/11 19:34*	*06/10/11 02:46*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	42.6		5.75		mg/kg dry	☼	06/09/11 12:34	06/10/11 02:48	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*107*		*50 - 150*	*06/09/11 12:34*	*06/10/11 02:48*	*1.00*

Client Sample ID: DP-9 (10)

Lab Sample ID: SUF0067-39

Date Collected: 06/08/11 10:00
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 92.9

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	908		10.8		mg/kg dry	☼	06/09/11 19:34	06/10/11 03:01	1.00
Heavy Oil Range Hydrocarbons	ND		26.9		mg/kg dry	☼	06/09/11 19:34	06/10/11 03:01	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*142*		*50 - 150*	*06/09/11 19:34*	*06/10/11 03:01*	*1.00*
p-Terphenyl-d14	*118*		*50 - 150*	*06/09/11 19:34*	*06/10/11 03:01*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	417		51.0		mg/kg dry	☼	06/10/11 10:59	06/10/11 12:14	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*146*		*50 - 150*	*06/10/11 10:59*	*06/10/11 12:14*	*10.0*

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Client Sample ID: DP-9 (15)

Lab Sample ID: SUF0067-40

Date Collected: 06/08/11 10:15
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 81.1

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	1230		12.3		mg/kg dry	☼	06/09/11 19:34	06/10/11 03:47	1.00
Heavy Oil Range Hydrocarbons	ND		30.8		mg/kg dry	☼	06/09/11 19:34	06/10/11 03:47	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*106*		*50 - 150*	*06/09/11 19:34*	*06/10/11 03:47*	*1.00*
p-Terphenyl-d14	*110*		*50 - 150*	*06/09/11 19:34*	*06/10/11 03:47*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	324		56.0		mg/kg dry	☼	06/10/11 10:59	06/10/11 12:39	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*133*		*50 - 150*	*06/10/11 10:59*	*06/10/11 12:39*	*10.0*

Client Sample ID: DP-1 (9)

Lab Sample ID: SUF0067-41

Date Collected: 06/07/11 12:55
Matrix: Soil
Date Received: 06/09/11 08:45
Percent Solids: 95.6

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	24.0		10.5		mg/kg dry	☼	06/09/11 19:34	06/10/11 04:34	1.00
Heavy Oil Range Hydrocarbons	124		26.2		mg/kg dry	☼	06/09/11 19:34	06/10/11 04:34	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*88.6*		*50 - 150*	*06/09/11 19:34*	*06/10/11 04:34*	*1.00*
p-Terphenyl-d14	*110*		*50 - 150*	*06/09/11 19:34*	*06/10/11 04:34*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		4.95		mg/kg dry	☼	06/10/11 10:59	06/10/11 13:04	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*99.1*		*50 - 150*	*06/10/11 10:59*	*06/10/11 13:04*	*1.00*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-88117/1-A
Matrix: Solid
Analysis Batch: 88101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/Kg		06/16/11 11:00	06/16/11 11:33	1
Toluene	ND		2.0		ug/Kg		06/16/11 11:00	06/16/11 11:33	1
n-Hexane	ND	^	5.0		ug/Kg		06/16/11 11:00	06/16/11 11:33	1
o-Xylene	ND		1.0		ug/Kg		06/16/11 11:00	06/16/11 11:33	1
Ethylbenzene	ND		1.0		ug/Kg		06/16/11 11:00	06/16/11 11:33	1
m-Xylene & p-Xylene	ND		2.0		ug/Kg		06/16/11 11:00	06/16/11 11:33	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*	*06/16/11 11:00*	*06/16/11 11:33*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*	*06/16/11 11:00*	*06/16/11 11:33*	*1*
Ethylbenzene-d10	*100*		*70 - 120*	*06/16/11 11:00*	*06/16/11 11:33*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 120*	*06/16/11 11:00*	*06/16/11 11:33*	*1*
Trifluorotoluene (Surr)	*116*		*65 - 140*	*06/16/11 11:00*	*06/16/11 11:33*	*1*

Lab Sample ID: LCS 580-88117/2-A
Matrix: Solid
Analysis Batch: 88101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	39.8	39.7		ug/Kg		100	75 - 125
Toluene	40.0	39.4		ug/Kg		98	70 - 125
n-Hexane	40.1	55.5	^	ug/Kg		139	66 - 183
o-Xylene	40.0	43.2		ug/Kg		108	75 - 125
Ethylbenzene	39.7	42.7		ug/Kg		108	75 - 125
m-Xylene & p-Xylene	80.0	88.9		ug/Kg		111	80 - 125

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Ethylbenzene-d10	*101*		*70 - 120*
4-Bromofluorobenzene (Surr)	*95*		*70 - 120*
Trifluorotoluene (Surr)	*112*		*65 - 140*

Lab Sample ID: LCSD 580-88117/3-A
Matrix: Solid
Analysis Batch: 88101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88117

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	39.8	38.4		ug/Kg		96	75 - 125	3	30
Toluene	40.0	39.4		ug/Kg		98	70 - 125	0	30
n-Hexane	40.1	51.7	^	ug/Kg		129	66 - 183	7	30
o-Xylene	40.0	43.1		ug/Kg		108	75 - 125	0	30
Ethylbenzene	39.7	41.9		ug/Kg		106	75 - 125	2	30
m-Xylene & p-Xylene	80.0	84.9		ug/Kg		106	80 - 125	5	30

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
Fluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-88117/3-A
Matrix: Solid
Analysis Batch: 88101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88117

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
Ethylbenzene-d10	*99*		*70 - 120*
4-Bromofluorobenzene (Surr)	*94*		*70 - 120*
Trifluorotoluene (Surr)	*113*		*65 - 140*

Lab Sample ID: MB 580-88359/1-A
Matrix: Solid
Analysis Batch: 88389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		40		ug/Kg		06/20/11 15:59	06/20/11 18:00	1
Ethylbenzene	ND		40		ug/Kg		06/20/11 15:59	06/20/11 18:00	1
m-Xylene & p-Xylene	ND		40		ug/Kg		06/20/11 15:59	06/20/11 18:00	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*	*06/20/11 15:59*	*06/20/11 18:00*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*	*06/20/11 15:59*	*06/20/11 18:00*	*1*
Ethylbenzene-d10	*101*		*70 - 120*	*06/20/11 15:59*	*06/20/11 18:00*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 120*	*06/20/11 15:59*	*06/20/11 18:00*	*1*
Trifluorotoluene (Surr)	*113*		*65 - 140*	*06/20/11 15:59*	*06/20/11 18:00*	*1*

Lab Sample ID: MB 580-88359/1-A
Matrix: Solid
Analysis Batch: 88487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		40		ug/Kg		06/20/11 15:59	06/21/11 14:25	1
Ethylbenzene	ND		40		ug/Kg		06/20/11 15:59	06/21/11 14:25	1
m-Xylene & p-Xylene	ND		40		ug/Kg		06/20/11 15:59	06/21/11 14:25	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*101*		*80 - 120*	*06/20/11 15:59*	*06/21/11 14:25*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*06/20/11 15:59*	*06/21/11 14:25*	*1*
Ethylbenzene-d10	*99*		*70 - 120*	*06/20/11 15:59*	*06/21/11 14:25*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 120*	*06/20/11 15:59*	*06/21/11 14:25*	*1*
Trifluorotoluene (Surr)	*117*		*65 - 140*	*06/20/11 15:59*	*06/21/11 14:25*	*1*

Lab Sample ID: LCS 580-88359/2-A
Matrix: Solid
Analysis Batch: 88389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
o-Xylene	800	676		ug/Kg		85	75 - 125
Ethylbenzene	794	688		ug/Kg		87	75 - 125
m-Xylene & p-Xylene	1600	1360		ug/Kg		85	80 - 125

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-88359/2-A
Matrix: Solid
Analysis Batch: 88389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88359

Surrogate	LCS % Recovery	LCS Qualifier	Limits
Ethylbenzene-d10	*101*		*70 - 120*
4-Bromofluorobenzene (Surr)	*97*		*70 - 120*
Trifluorotoluene (Surr)	*110*		*65 - 140*

Lab Sample ID: LCS 580-88359/2-A
Matrix: Solid
Analysis Batch: 88487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
o-Xylene	800	820		ug/Kg		103	75 - 125
Ethylbenzene	794	836		ug/Kg		105	75 - 125
m-Xylene & p-Xylene	1600	1700		ug/Kg		106	80 - 125

Surrogate	LCS % Recovery	LCS Qualifier	Limits
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Ethylbenzene-d10	*99*		*70 - 120*
4-Bromofluorobenzene (Surr)	*97*		*70 - 120*
Trifluorotoluene (Surr)	*111*		*65 - 140*

Lab Sample ID: LCSD 580-88359/3-A
Matrix: Solid
Analysis Batch: 88389

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88359

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
o-Xylene	800	756		ug/Kg		95	75 - 125	11	30
Ethylbenzene	794	772		ug/Kg		97	75 - 125	12	30
m-Xylene & p-Xylene	1600	1540		ug/Kg		96	80 - 125	12	30

Surrogate	LCSD % Recovery	LCSD Qualifier	Limits
Fluorobenzene (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*
Ethylbenzene-d10	*100*		*70 - 120*
4-Bromofluorobenzene (Surr)	*102*		*70 - 120*
Trifluorotoluene (Surr)	*113*		*65 - 140*

Lab Sample ID: LCSD 580-88359/3-A
Matrix: Solid
Analysis Batch: 88487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88359

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
o-Xylene	800	852		ug/Kg		107	75 - 125	4	30
Ethylbenzene	794	860		ug/Kg		108	75 - 125	3	30
m-Xylene & p-Xylene	1600	1710		ug/Kg		107	80 - 125	1	30

Surrogate	LCSD % Recovery	LCSD Qualifier	Limits
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-88359/3-A
Matrix: Solid
Analysis Batch: 88487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88359

Surrogate	LCSD % Recovery	LCSD Qualifier	Limits
Ethylbenzene-d10	102		70 - 120
4-Bromofluorobenzene (Surr)	99		70 - 120
Trifluorotoluene (Surr)	117		65 - 140

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Lab Sample ID: 11F0068-BLK1
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		06/09/11 19:34	06/10/11 09:12	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		06/09/11 19:34	06/10/11 09:12	1.00

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	92.7		50 - 150	06/09/11 19:34	06/10/11 09:12	1.00
p-Terphenyl-d14	105		50 - 150	06/09/11 19:34	06/10/11 09:12	1.00

Lab Sample ID: 11F0068-BLK2
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		06/09/11 19:34	06/09/11 20:07	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		06/09/11 19:34	06/09/11 20:07	1.00

Surrogate	Blank % Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	98.6		50 - 150	06/09/11 19:34	06/09/11 20:07	1.00
p-Terphenyl-d14	108		50 - 150	06/09/11 19:34	06/09/11 20:07	1.00

Lab Sample ID: 11F0068-BS1
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Hydrocarbons	83.3	70.9		mg/kg wet		85.1	73 - 133

Surrogate	LCS % Recovery	LCS Qualifier	Limits
2-FBP	101		50 - 150
p-Terphenyl-d14	110		50 - 150

Lab Sample ID: 11F0068-BS2
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Hydrocarbons	83.3	69.0		mg/kg wet		82.8	73 - 133

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup (Continued)

Lab Sample ID: 11F0068-BS2
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11F0068_P

Surrogate	LCS % Recovery	LCS Qualifier	Limits
2-FBP	104		50 - 150
p-Terphenyl-d14	108		50 - 150

Lab Sample ID: 11F0068-MS1
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: DP-9 (10)
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Hydrocarbons	908		89.7	928	M1	mg/kg dry	☼	22.1	70.1 - 139

Surrogate	Matrix Spike % Recovery	Matrix Spike Qualifier	Limits
2-FBP	97.9		50 - 150
p-Terphenyl-d14	107		50 - 150

Lab Sample ID: 11F0068-DUP1
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: DP-9 (10)
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Hydrocarbons	908		771		mg/kg dry	☼	16.4	40
Heavy Oil Range Hydrocarbons	26.6		26.1		mg/kg dry	☼	1.75	40

Surrogate	Duplicate % Recovery	Duplicate Qualifier	Limits
2-FBP	104		50 - 150
p-Terphenyl-d14	110		50 - 150

Lab Sample ID: 11F0068-DUP2
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: DP-1 (9)
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Hydrocarbons	24.0		18.2		mg/kg dry	☼	27.4	40
Heavy Oil Range Hydrocarbons	124		97.3		mg/kg dry	☼	23.8	40

Surrogate	Duplicate % Recovery	Duplicate Qualifier	Limits
2-FBP	93.8		50 - 150
p-Terphenyl-d14	105		50 - 150

Lab Sample ID: 11F0068-DUP3
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: DP-1 (9)
Prep Type: Total
Prep Batch: 11F0068_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Hydrocarbons	24.0		25.1		mg/kg dry	☼	4.57	40
Heavy Oil Range Hydrocarbons	124		132		mg/kg dry	☼	6.30	40

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup (Continued)

Lab Sample ID: 11F0068-DUP3
Matrix: Soil
Analysis Batch: 11F0068

Client Sample ID: DP-1 (9)
Prep Type: Total
Prep Batch: 11F0068_P

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
2-FBP	*101*		*50 - 150*
p-Terphenyl-d14	*105*		*50 - 150*

Method: NWTPH/VPH - Northwest - Volatile Pertroleum Hydrocarbons (GC)

Lab Sample ID: MB 580-88253/1-A
Matrix: Solid
Analysis Batch: 88337

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C6 Aliphatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
C6-C8 Aliphatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
C8-C10 Aliphatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
C10-C12 Aliphatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
C8-C10 Aromatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
C10-C12 Aromatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
C12-C13 Aromatics	ND		2.0		mg/Kg		06/17/11 16:36	06/19/11 11:32	1
Total VPH	ND		14		mg/Kg		06/17/11 16:36	06/19/11 11:32	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*60 - 140*	*06/17/11 16:36*	*06/19/11 11:32*	*1*
a,a,a-Trifluorotoluene (fid)	*109*			*06/17/11 16:36*	*06/19/11 11:32*	*1*
a,a,a-Trifluorotoluene (pid)	*112*			*06/17/11 16:36*	*06/19/11 11:32*	*1*
BFB - PID	*103*		*60 - 140*	*06/17/11 16:36*	*06/19/11 11:32*	*1*

Lab Sample ID: LCS 580-88253/2-A
Matrix: Solid
Analysis Batch: 88337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
C5-C6 Aliphatics	8.00	7.93		mg/Kg		99	70 - 130
C6-C8 Aliphatics	4.00	3.72		mg/Kg		93	70 - 130
C8-C10 Aliphatics	8.00	7.96		mg/Kg		99	70 - 130
C10-C12 Aliphatics	4.00	4.07		mg/Kg		102	70 - 130
C8-C10 Aromatics	16.0	15.8		mg/Kg		99	70 - 130
C10-C12 Aromatics	4.00	3.72		mg/Kg		93	70 - 130
C12-C13 Aromatics	8.00	6.95		mg/Kg		87	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*60 - 140*
a,a,a-Trifluorotoluene (fid)	*97*		
a,a,a-Trifluorotoluene (pid)	*98*		
BFB - PID	*100*		*60 - 140*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 11F0061-BLK1
Matrix: Soil
Analysis Batch: 11F0061

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11F0061_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		06/09/11 12:34	06/10/11 03:13	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*86.3*		*50 - 150*	*06/09/11 12:34*	*06/10/11 03:13*	*1.00*

Lab Sample ID: 11F0061-BS1
Matrix: Soil
Analysis Batch: 11F0061

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11F0061_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Hydrocarbons			25.0	20.1		mg/kg wet		80.2	74.4 - 124		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*110*		*50 - 150*

Lab Sample ID: 11F0061-BSD1
Matrix: Soil
Analysis Batch: 11F0061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 11F0061_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			25.0	21.8		mg/kg wet		87.2	74.4 - 124	8.33	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*101*		*50 - 150*

Lab Sample ID: 11F0061-DUP1
Matrix: Soil
Analysis Batch: 11F0061

Client Sample ID: DP-5 (10)
Prep Type: Total
Prep Batch: 11F0061_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	ND			ND		mg/kg dry	☼				32.3

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*104*		*50 - 150*

Lab Sample ID: 11F0061-DUP2
Matrix: Soil
Analysis Batch: 11F0061

Client Sample ID: DP-8 (9)
Prep Type: Total
Prep Batch: 11F0061_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	11.8			12.4		mg/kg dry	☼			5.19	32.3

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*98.7*		*50 - 150*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx (Continued)

Lab Sample ID: 11F0072-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11F0072 — **Prep Batch: 11F0072_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		06/10/11 10:59	06/10/11 13:53	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*88.4*		*50 - 150*	*06/10/11 10:59*	*06/10/11 13:53*	*1.00*

Lab Sample ID: 11F0072-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11F0072 — **Prep Batch: 11F0072_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Hydrocarbons			12.5	10.8		mg/kg wet		86.1	74.4 - 124		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*100*		*50 - 150*

Lab Sample ID: 11F0072-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11F0072 — **Prep Batch: 11F0072_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			12.5	10.2		mg/kg wet		81.8	74.4 - 124	5.11	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*101*		*50 - 150*

Lab Sample ID: 11F0072-DUP1 — **Client Sample ID: DP-1 (9)**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11F0072 — **Prep Batch: 11F0072_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	1.56			0.782	R4	mg/kg dry	☼			66.1	32.3

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*95.1*		*50 - 150*

Lab Sample ID: 11F0072-DUP2 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 11F0072 — **Prep Batch: 11F0072_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	8.87			7.59		mg/kg dry	☼			15.6	32.3

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*101*		*50 - 150*

Method: NWTPH/EPH - Northwest - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 580-87986/1-B
Matrix: Solid
Analysis Batch: 88144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 87986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C12 Aliphatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C12-C16 Aliphatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C16-C21 Aliphatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C21-C34 Aliphatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C10-C12 Aromatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C12-C16 Aromatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C16-C21 Aromatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1
C21-C34 Aromatics	ND		5.0		mg/Kg		06/15/11 09:40	06/16/11 15:38	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*60 - 140*	*06/15/11 09:40*	*06/16/11 15:38*	*1*
1-Chlorooctadecane	*86*		*60 - 140*	*06/15/11 09:40*	*06/16/11 15:38*	*1*

Lab Sample ID: LCS 580-87986/2-B
Matrix: Solid
Analysis Batch: 88144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 87986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
C10-C12 Aliphatics	3.33	ND		mg/Kg		78	70 - 130
C12-C16 Aliphatics	6.67	5.61		mg/Kg		84	70 - 130
C16-C21 Aliphatics	10.0	8.68		mg/Kg		87	70 - 130
C21-C34 Aliphatics	20.0	17.2		mg/Kg		86	70 - 130
C10-C12 Aromatics	3.33	ND		mg/Kg		92	70 - 130
C12-C16 Aromatics	10.0	9.55		mg/Kg		95	70 - 130
C16-C21 Aromatics	20.0	16.6		mg/Kg		83	70 - 130
C21-C34 Aromatics	26.7	26.4		mg/Kg		99	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*87*		*60 - 140*
1-Chlorooctadecane	*85*		*60 - 140*

Lab Sample ID: 580-26783-1 MS
Matrix: Solid
Analysis Batch: 88144

Client Sample ID: SUF0067-22
Prep Type: Total/NA
Prep Batch: 87986

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
C10-C12 Aliphatics	200		3.85	99.7	4	mg/Kg	☼	-2515	70 - 130
C12-C16 Aliphatics	170		7.71	109	4	mg/Kg	☼	-839	70 - 130
C16-C21 Aliphatics	32		11.6	32.9	F	mg/Kg	☼	10	70 - 130
C21-C34 Aliphatics	ND		23.1	22.9		mg/Kg	☼	76	70 - 130
C10-C12 Aromatics	290		3.85	202	4	mg/Kg	☼	-2375	70 - 130
C12-C16 Aromatics	310		11.6	226	4	mg/Kg	☼	-750	70 - 130
C16-C21 Aromatics	31		23.1	39.7	F	mg/Kg	☼	39	70 - 130
C21-C34 Aromatics	6.6		30.8	32.1		mg/Kg	☼	83	70 - 130

Surrogate	*MS % Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*91*		*60 - 140*
1-Chlorooctadecane	*81*		*60 - 140*

Method: NWTPH/EPH - Northwest - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: 580-26783-1 MSD
Matrix: Solid
Analysis Batch: 88144

Client Sample ID: SUF0067-22
Prep Type: Total/NA
Prep Batch: 87986

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
C10-C12 Aliphatics	200		3.84	183	4 F	mg/Kg	☼	-358	70 - 130	59	25
C12-C16 Aliphatics	170		7.68	177	4 F	mg/Kg	☼	33	70 - 130	47	25
C16-C21 Aliphatics	32		11.5	41.6		mg/Kg	☼	85	70 - 130	23	25
C21-C34 Aliphatics	ND		23.1	24.0		mg/Kg	☼	81	70 - 130	5	25
C10-C12 Aromatics	290		3.84	292	4 F	mg/Kg	☼	-50	70 - 130	36	25
C12-C16 Aromatics	310		11.5	327	4 F	mg/Kg	☼	125	70 - 130	37	25
C16-C21 Aromatics	31		23.1	47.1		mg/Kg	☼	71	70 - 130	17	25
C21-C34 Aromatics	6.6		30.7	33.1		mg/Kg	☼	86	70 - 130	3	25

Surrogate	*MSD % Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*90*		*60 - 140*
1-Chlorooctadecane	*82*		*60 - 140*

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Spokane	Alaska	Alaska UST	10	UST-071
TestAmerica Spokane	Washington	State Program	10	C569
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-067-00

TestAmerica Job ID: SUF0067

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SEA
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup		TAL SPK
NWTPH/VPH	Northwest - Volatile Pertroleum Hydrocarbons (GC)	NWTPH	TAL SEA
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
NWTPH/EPH	Northwest - Extractable Petroleum Hydrocarbons (GC)	NWTPH	TAL SEA
Moisture	Percent Moisture	EPA	TAL SEA
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SUF0067

CLIENT: GeoEngineers

REPORT TO: John Haney

ADDRESS: 523 E 2nd Ave Spokane WA

PHONE: 363 3125 FAX: 363 3126

INVOICE TO: GeoEngineers

P.O. NUMBER: 0504-067-06

PROJECT NAME:

PROJECT NUMBER:

SAMPLED BY:

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: ~~5~~ STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES											MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
				Gx	Dx	VOCs SW8260	VPH	EPH										
*1	DP-2(10)	6/7/11 1330		X	X										S	8oz	2 MeOH	
*2	DP-3(9)	1420		X	X	Hold			Gx/Dx		2 day TAT						3 MeOH, 2 SOBs	
3	DP-3(5)	1406																
*4	DP-3(15)	1430		X	X												2 MeOH	
5	DP-2(5)	1325																
*6	DP-2(15)	1340		X	X												2 MeOH	
7	DP-3(2)	1355																
8	DP-4(1)	1445																
9	DP-2(7)	1320																
*10	DP-1(5)	1305		X	X										V	V	2 MeOH	

RELEASED BY: [signature] PRINT NAME: S Lathen FIRM: GEJ DATE: 6/9/11 TIME: 845

RECEIVED BY: Cat Stapleton PRINT NAME: Cat Stapleton FIRM: Test America DATE: 6-9-11 TIME: 8:45

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP: 5.1

PAGE 1 OF 5

TAL-1000(0408)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290 ☐
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210 ☐
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210 ☐

CHAIN OF CUSTODY REPORT

Work Order #: SUF0067

CLIENT: GeoEngineers
REPORT TO: J Hahey
ADDRESS: 523 E 2nd Ave
PHONE: FAX:
PROJECT NAME:
PROJECT NUMBER:
SAMPLED BY:

INVOICE TO: GeoEngineers
P.O. NUMBER:

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: ~~5 STD.~~ | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		NWTPH Gx	NWTPH Dx	VOCs EPA 8260B	EPH	VPH		MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
X 1 DP-4(15)	6/7/11	1520	X	X					S	1 8oz	2 MeOH	
X 2 DP-4 (18)	↓	1545	X	X							2 MeOH	
X 3 DP-5 (10)		1610	X	X							2 MeOH	
4 DP-6 (2)	6/8/11	715										
5 DP-5 (6)	6/7/11	1600										
6 DP-5 (3)	6/7/11	1550										
X 7 DP-5 (15)	6/7/11	1615	X	X	HOLD			Dx/Gx 2 day TAT			3 MeOH, 2 sobi	
8 DP-6 (4)	6/8/11	720										
X 9 DP-4 (8)	6/7/11	1500	X	X							2 MeOH	
10 DP-4 (4)	6/7/11	1452							↓	↓		

RELEASED BY: S Yath PRINT NAME: FIRM: GEI DATE: 6/9/11 TIME: 845
RECEIVED BY: Cat Stapleton PRINT NAME: Cat Stapleton FIRM: TestAmerica DATE: 6-9-11 TIME: 8:45
RELEASED BY: PRINT NAME: FIRM: DATE: TIME:
RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS: NWTPH-Dx w/ silica gel cleanup VOCs - BTEX, n-Hexane

TEMP:

PAGE 2 OF 5

TAL-1000(0408)

06/21/2011

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

06/21/2011

CHAIN OF CUSTODY REPORT

Work Order #: SUF0067

CLIENT: GeoEngineers

REPORT TO: J Harkey

ADDRESS: 523 E 2nd Ave Spokane WA

PHONE: 509 363 3125 FAX: 509 363 3126

INVOICE TO: GeoEngineers

P.O. NUMBER:

PROJECT NAME: Malott

PROJECT NUMBER: 0504-067-00

SAMPLED BY: S Lathen

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: X STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Cx	Dx	VOCs 8260B	VPH	EPH							MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
X 1	DP-5(15)	6/7/11 1625	X	X										S	1 8oz	2 meOH	
X 2	DP-6(10)	6/8/11 730	X	X	Hold		Cx/Dx 2 day TAT									3 MeOH, 2 SOBs	
X 3	DP-6(14)	745	X	X												2 meOH	
4	DP-7(5)	805															
5	DP-8(1)	909															
6	DP-9(2)	945															
7	DP-7(1)	800															
X 8	DP-7(11)	815	X	X												2 meOH	
9	DP-8(5)	915															
10	DP-9(5)	954												↓	↓		

RELEASED BY: S Lathen FIRM: GEI DATE: 6/9/11 TIME: 845

RECEIVED BY: Cat Stapleton PRINT NAME: Cat Stapleton FIRM: Test America DATE: 6-9-11 TIME: 8:45

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP:

PAGE 3 OF 5

TAL-1000(0408)

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2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SUF0067

CLIENT: GeoEngineers
REPORT TO: J Handy
ADDRESS: 523 E 2nd Ave Spokane WA
PHONE: 509 363 3125 FAX: 509 363 3126
PROJECT NAME: Malott
PROJECT NUMBER: 0504-067-00
SAMPLED BY: SHL

INVOICE TO: GeoEngineers
P.O. NUMBER:

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: ~~5~~ STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: Dx	Gx	VOCs EPA 8260B	VPH	EPH					MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	DP-7(15)	6/8/11 830		X	X	HOLD		—	Dx	Gx	2 day	TAT	S	80z	3 MeOH, 2 SOBs	
2	DP-7(18)	855		X	X										2 MeOH	
3	DP-8(9)	925		X	X											
4	DP-8(15)	940		X	X											
5	DP-10(15)	1045		X	X											
6	DP-10(5)	1030														
7	DP-10(10)	1035		X	X										2 MeOH	
8	DP-10(2)	1020														
9	DP-9(10)	1000		X	X										2 MeOH	
10	DP-9(15)	1015		X	X											

RELEASED BY: [signature] DATE: 6/9/11
PRINT NAME: S Lathen FIRM: GE TIME: 845
RECEIVED BY: Cat Stapleton DATE: 6-9-11
PRINT NAME: Cat Stapleton FIRM: Test America TIME: 8:45

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:
RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS: Dx - w/ silica gel cleanup VOCs - BTEX n hexane

TEMP:

PAGE 4 OF 5

TAL-1000(0408)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SUF0067

CLIENT: GeoEngineers
REPORT TO: J Hafey
ADDRESS: 523 E 2nd Ave
PHONE: FAX:
INVOICE TO: Geo
P.O. NUMBER:
PROJECT NAME: Malott
PROJECT NUMBER: 0504-067-00
SAMPLED BY:

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	DP-1(9)	6/7/11 1255	X	X	S	8oz	2 MeOH	
2	DP-1(6)	1245			↓	↓		
3	DP-1(2)	1230						
4								
5								
6								
7								
8								
9								
10								

RELEASED BY: S Lather — DATE: 6/9/11 — RECEIVED BY: Cat Stapleton — DATE: 6-9-11
PRINT NAME: S Lather — FIRM: GE — TIME: 845 — PRINT NAME: Cat Stapleton — FIRM: Test America — TIME: 8:45
RELEASED BY: — DATE: — RECEIVED BY: — DATE:
PRINT NAME: — FIRM: — TIME: — PRINT NAME: — FIRM: — TIME:
ADDITIONAL REMARKS:

TEMP: PAGE 5 OF 5

TAL-1000(0408)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SUF0067	Client: GeoEngineers	Project: Malott
Date/Time Received: 6-9-11 8:45	By: CS	

Samples Delivered By: ☐Shipping Service ☒Courier ☐Client ☐Other:_____

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	X			
Custody Seals are present and intact:		X		
Are CoC documents present:	X			
Necessary signatures:	X			

Thermal Preservation Type: ☐Blue Ice ☐Gel Ice ☐Real Ice ☐Dry Ice ☒None ☐Other:_____

Temperature by IR Gun: 5.1 °C Thermometer Serial #81500 (acceptance criteria 0-6 °C)

Temperature out of range: ☐Not enough ice ☐Ice melted ☐w/in 4hrs of collection ☐NA ☐Other:_____

Log-in Phase Date/Time: 6-9-11 10:20 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)			X	
Are dissolved parameters field filtered			X	
Do any samples need to be filtered or preserved by the lab		X		
Does this project require quick turnaround analysis		X		
Are there any short hold time tests (see chart below)		X		
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated #_____			X	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of the Washington State Department of Ecology (Ecology). This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Ecology should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for the Arden's Country Store site located in Malott, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of Ecology. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm and Ecology with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

Ecology and generally accepted environmental practices in this area at the time this report was prepared.

Environmental Regulations are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Uncertainty May Remain Even After This Phase II ESA is Completed

No ESA can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproductions are acceptable, but recognize that separating logs from the report can elevate risk.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Geotechnical, Geologic and Geoenvironmental Reports Should Not be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If Sandpoint Enterprises, LLC desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

Have we delivered World Class Client Service?
Please let us know by visiting **www. geoengineers.com/feedback**.

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