Phase II Site Assessment Report

Tiger Oil - Summitview
5511 Summitview Road
Yakima, Washington

for
Washington State Department of Ecology

January 30, 2015

GeoEngineers
Earth Science + Technology

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File No. 0504-101-00

January 30, 2015

Prepared for:

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ACRONYMS AND ABBREVIATIONS

bgs – below ground surface

BTEX – benzene, toluene, ethylbenzene and xylene

COC – contaminants of concern

DOT – Department of Transportation

DRPH – diesel-range petroleum hydrocarbons

Ecology – Washington State Department of Ecology

EDB – ethylene dibromide

EDC – 1,2-dichloroethane

EPA – Environmental Protection Agency

ESA – environmental site assessment

GeoEngineers – GeoEngineers, Inc.

GPS – global positioning system

GRPH – gasoline-range petroleum hydrocarbons

IDW – Investigation-derived waste

LCS – laboratory control sample

LCSD – laboratory control sample duplicate

MRL – Method Reporting Limit

MS – matrix spike

MSD – matrix spike duplicate

MTBE – methyl tertiary-butyl ether

MTCA – Model Toxics Control Act

NAD83 – North American Datum of 1983

NAVD88 – North American Vertical Datum of 1988

ntu – nephelometric turbidity units

ORPH – oil-range petroleum hydrocarbons

PAH – polycyclic aromatic hydrocarbons

PID – photoionization detector

ppm – parts per million

PVC – polyvinyl chloride

QA/QC – Quality Assurance/Quality Control

RPD – relative percent difference

SAP – Sampling and Analysis Plan

SDG – sample delivery group

TestAmerica – TestAmerica Laboratories, Inc.

TOC – total organic carbon

TPH – total petroleum hydrocarbons

UST – underground storage tank

VOCs – volatile organic compounds

WAC – Washington Administrative Code

1.0 INTRODUCTION

This report describes soil and groundwater assessment activities conducted at the Tiger Oil – Summitview site at 5511 Summitview Road in Yakima, Washington (herein designated "site"). The site is located as shown in the attached Vicinity Map, Figure 1.

Activities conducted as part of the assessment included:

- Advancing six direct-push borings and collecting soil and grab groundwater samples in April 2014.
- Installing three groundwater monitoring wells and collecting soil samples in late July and early August 2014.
- Conducting the first quarterly groundwater monitoring event in September 2014.

This report includes a brief description of the site, a summary of our scope of services, a description of field activities, a summary of chemical and analytical results, and our interpretations and recommendations. Assessment activities were conducted in general accordance with the approved work plan (GeoEngineers, 2014a) and supplemental monitoring well installation memo (GeoEngineers, 2014b). The work was performed under State of Washington Department of Ecology (Ecology) Contract No. C1100145, GeoEngineers Proposal No. 0504-101-00, dated March 6, 2014, and Work Assignment No. C11145RR.

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located at 5511 Summitview road in Yakima, Washington. The site is bordered by arterial roadways Summitview Avenue to the south and North 56th Avenue to the west as shown on Site Plan and Sample Locations, Figure 2. A paved alley way is located to the north of the site and provides access to the bank building located to the east of the site.

The site operated as a retail gasoline station and convenience store until closure in 2001. The site contains two buildings and two historic fuel dispenser islands. Buildings at the site include the larger former convenience store in the northeast corner of the site and a smaller former satellite pay station in the southwest corner of the site. The convenience store has a glass face facing south where the former main entrance was. Observations of the building interior from the glass face indicate the presence of moisture and organic vegetation on the floor of the building. Former fuel dispenser islands are located in the south and west areas of the property. A single tank pit was located south of the former convenience store between the convenience store and the southern fuel dispenser island. The site is generally paved, except where three former underground storage tanks (USTs) were removed.

In 2005, three USTs were decommissioned and removed from the site. Underground fuel delivery lines were drained and capped with quick setting cement and the tank excavation was backfilled with imported sands, gravels and cobbles. The tanks removed from the site included:

- One 20,000-gallon steel regular gasoline tank
- Two 10,000-gallon steel unleaded gasoline tanks

According to the UST decommissioning and site assessment report (Tetra Tech, 2005), visual observations did not indicate holes in the steel tanks; however, examination of the underlying soil indicated possible historic spillage associated with fill tubes in the 20,000-gallon and center 10,000-gallon USTs. Soil samples collected during the tank removal in 2005 indicated petroleum contamination greater than Model Toxics Control Act (MTCA) Method A cleanup levels in the bottom of the tank pit.

Gasoline range petroleum hydrocarbons (GRPH), benzene, toluene, ethylbenzene and xylene (BTEX) and lead were identified approximately 11 to 15 feet below ground surface (bgs) in the soil of the tank beds during the tank removal site assessment. A follow up assessment for the dispensers and product lines indicated concentrations of GRPH and BTEX greater than MTCA Method A cleanup levels at the western most fuel dispenser island at a depth of 3½ feet (Wayne Perry, 2005). Samples taken along the product lines and at the southern fuel dispenser island did not indicate GRPH or BTEX greater than laboratory detection limits (Wayne Perry, 2005). Approximate locations of the subsurface product lines are shown on Figure 2.

3.0 SCOPE OF SERVICES

GeoEngineers prepared a Sampling and Analysis Plan (SAP), dated April 15, 2014, to guide assessment activities. A follow up memo describing installation activities for three groundwater monitoring wells was provided on July 21, 2014. Site assessment activities included:

- Advancing six direct push borings (SVDP-1 through SVDP-6);
- Observing and documenting subsurface soil conditions for each boring;
- Conducting field screening activities and collecting soil and groundwater samples from the borings;
- Submitting selected soil and groundwater samples from the soil borings for laboratory chemical analysis;
- Installing three groundwater monitoring wells at the site (SVMW-1 through SVMW-3);
- Observing and documenting subsurface soil conditions for each monitoring well;
- Conducting field screening activities and collecting soil samples during the monitoring well installation;
- Submitting selected soil samples from the well installation for laboratory chemical analysis;
- Developing the new groundwater monitoring wells using surge and purge techniques;
- Surveying the new groundwater monitoring wells for horizontal and vertical references;
- Conducting the first quarterly groundwater sample from the new wells; and
- Preparing Investigation-derived waste (IDW) for disposal.

4.0 FIELD ACTIVITIES

For each drilling program, locations were marked in the field and a one-call utility locate was requested before equipment was mobilized to the site. A private utility locator (Utilities Plus, LLC) was also contracted to locate site utilities near proposed drilling locations before drilling activities commenced. Soil borings, well construction and well development activities were conducted by Cascade Drilling, L.P. (Cascade

Drilling). Locations of the borings and groundwater monitoring wells were established in the field using a hand-held iPad with global positioning system (GPS) software before drilling commenced. The horizontal accuracy of the hand-held unit is within about 10 feet.

Direct-push soil borings were advanced on April 14, 2014 and groundwater monitoring well installation activities were conducted between July 28 and August 1, 2014. GeoEngineers observed and documented soil boring and well installation activities for compliance with the previously prepared guidance documentation (GeoEngineers, 2014a and 2014b). GeoEngineers collected soil samples from the direct-push and well borings as they were advanced. Groundwater samples were also collected from temporary wells installed in two soil borings where groundwater was encountered.

Soil borings and new well locations are shown on Figure 2. Selected samples were submitted to TestAmerica Laboratories, Inc. (TestAmerica) and analyzed in general accordance with the project documents.

Groundwater monitoring wells were developed by Cascade Drilling and then surveyed by a licensed professional surveyor, PLS, Inc. (PLS), on August 27, 2014. Subsequent groundwater sampling of the new groundwater monitoring wells was conducted on September 18, 2014 by GeoEngineers. IDW was contained in 55-gallon drums, labeled and stored on the subject property pending profiling and disposal.

Detailed descriptions of the soil borings, well installations and groundwater sampling events are provided below.

4.1. Direct-Push Soil Borings

Six direct push borings (SVDP-1 through SVDP-6) were advanced at the site on April 14, 2014 using a truck-mounted Geoprobe 6600 operated by Cascade Drilling. Approximate locations are provided on Figure 2. In general, GeoEngineers followed the process below during the drilling program:

- Notified the Call-Before-You-Dig utility notification service before beginning drilling activities;
- Subcontracted Utilities Plus, LLC to locate potential utilities near each explorations before drilling;
- Subcontracted Cascade Drilling, LP (Cascade Drilling) to drill the direct-push soil borings at the site;
- Observed and documented subsurface soil conditions for each boring;
- Collected continuous soil samples during direct-push 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;
- Collected grab water samples from temporary wells installed in two borings where groundwater was encountered;
- Backfilled exploratory boreholes with bentonite and repaired the surface with cold patch asphalt as needed; and
- Submitted six soil samples and two groundwater samples to TestAmerica of Spokane, Washington for chemical analysis.

Each soil boring was advanced to refusal which generally occurred at a depth of approximately 25 feet bgs when the limits of the equipment were reached and the push probe could not advance deeper. Observed subsurface conditions at the site during the test pit explorations ("Section 4.2") and groundwater well installations ("Section 4.3") indicate that silts and clays were located near the boring termination depths.

Groundwater was encountered at approximately 19 feet bgs in borings SVDP-1 and SVDP-2 only. Soil samples from SVDP-1, SVDP-2 (two samples), SVDP-3, SVDP-5, and SVDP-6 were submitted to TestAmerica for analysis. Duplicate samples were not collected because of minimal soil volume. Field screening did not indicate the presence of petroleum hydrocarbons from SVDP-4 and therefore a soil sample was not submitted for analysis for this location to assist with reducing analytical costs and in concurrence with Ecology. Samples were not submitted for extractable petroleum hydrocarbon (EPH) or volatile petroleum hydrocarbon (VPH) analysis. Logs of direct push borings are provided in Appendix A.

Groundwater samples were collected from temporary wells in borings SVDP-1 and SVDP-2 and submitted to TestAmerica for analysis. Groundwater was not encountered in borings SVDP-3 through SVDP-6. Groundwater was sampled by installing a temporary well screen which ranged in length from 3 to 10 feet at the bottom of SVDP-1 and SVDP-2 and lowering polyethylene tubing into the temporary well. The well was then purged using a peristaltic pump for approximately 3 to 5 minutes. Water was routed through a water quality meter and flow through cell during well purging and then the flow through cell was disconnected and a sample of the water was collected for chemical analysis.

Soil and groundwater samples were placed into coolers containing ice and then delivered to TestAmerica under chain of custody for chemical analysis. Soil cuttings from the investigation were drummed, labeled and stored on the subject property pending profiling and disposal.

4.2. Monitoring Well Installation

Three groundwater monitoring wells (SVMW-1, SVMW-2 and SVMW-3) were installed at the site between July 28 and August 1, 2014 using a 200C Spider sonic drill rig operated by Cascade Drilling. Wells were installed by advancing a 5-inch core barrel inside a 6-inch casing. Approximate well locations are provided on Figure 2. In general, GeoEngineers followed the process below:

- Notified the Call-Before-You-Dig utility notification service before beginning drilling activities;
- Subcontracted Utilities Plus, LLC to locate potential utilities near each exploration before drilling;
- Subcontracted Cascade Drilling to drill and construct the groundwater monitoring wells;
- Observed and documented subsurface soil conditions for each monitoring well;
- Collected continuous soil samples during drilling. Select sub-samples were field-screened using visual observations, water sheen and headspace vapor measurements with a PID to assess possible presence of petroleum-related contaminants;
- Developed the groundwater monitoring wells using surging and pumping techniques;
- Submitted four soil samples (one from each well location and one duplicate) to TestAmerica for chemical analysis; and
- Contracted with PLS to complete a horizontal and vertical survey of the wells.

SVMW-1 was advanced to a depth of 70-feet bgs. Water was encountered at approximately 61½ feet during drilling. After completion of the run to 70 feet, the water level rose to approximately 35½ feet. Observations during drilling did not indicate conditions conducive to confined aquifer conditions at depths from about 32 to 70 feet bgs. The hole was backfilled with bentonite chips to 42 feet and then sand from 42 to 40 feet bgs. The well was installed using 2-inch-diameter, schedule 40 polyvinyl chloride (PVC) pipe and screened from 30 to 40 feet bgs.

SVMW-2 was advanced to a depth of approximately 28 feet bgs. Water was observed at approximately 19 feet during drilling. The hole was backfilled with bentonite chips to 27 feet and then sand from 27 to 26 feet bgs. The well was installed using 2-inch-diameter, schedule 40 PVC pipe and screened from 11 to 26 feet bgs.

SVMW-3 was advanced to a depth of 25 feet bgs. Water was observed at approximately 18 feet during drilling. The well was installed using 2-inch-diameter, schedule 40 PVC pipe and screened from 10 to 25 feet bgs. Detailed well installation logs are provided in Appendix A.

Wells were packed with silica-sand up to 2 feet above the screen, sealed with bentonite chips to 1 foot bgs and then capped with a cement well monument for the remaining foot. Wells were developed by Cascade Drilling between August 14 and 15, 2014 using surge and purge methods. Soil cuttings and development water from the investigation were drummed, labeled and stored on the subject property pending profiling and disposal.

Discrete soil samples were collected for each monitoring well. Soil samples were field-screened to evaluate for petroleum hydrocarbons, using a PID and sheen pan. One soil sample from each well location was selected for chemical analysis, based on the results of the field screening. If no obvious signs of contamination were present, the sample collected just above the observed water level was submitted for analysis. Soil samples were placed into coolers containing ice and then delivered to TestAmerica under chain of custody for chemical analysis.

The three new groundwater monitoring wells installed at the site were surveyed on August 27, 2014 by PLS. The north edge of the top of the PVC casing, and north side of the top of the well monument were surveyed for horizontal and vertical coordinates relative to North American Datum of 1983 (NAD83) Washington South Zone and North American Vertical Datum of 1988 (NAVD88), respectively. PLS also marked the north side of each well casing for future depth to groundwater measurements. Well survey information is provided in Appendix C.

4.3. Subsurface Conditions

Borings SVDP-1 through SVDP-6 and SVMW-1 and SVMW-3 were drilled through asphalt with base layers of sand and gravel observed in SVMW-1, SVDP-1 and SVDP-6. SVMW-2 was drilled through a grassy lot to the south of the site. Observed soil conditions below imported surficial material generally are fine-grained and consist of brown sandy silts and silty fine sand with varying amounts of clay and gravel.

Brown silty fine sand and/or silt with variable sand and gravel content were generally observed below surficial material. Borings SVDP-4, SVDP-5 and SVDP-6 encountered clay at the bottom of each borings. Saturated soil conditions were encountered in borings SVDP-1, SVDP-2, SVMW-2 and SVMW-3 at approximately 19 feet. Saturated conditions were not observed in SVDP-3, SVDP-4, SVDP-5 or SVDP-6.

4.4. Groundwater Monitoring

In accordance with the SAP, the new groundwater monitoring wells will be sampled quarterly for 1 year. The first groundwater sampling event was conducted on September 18, 2014 after the wells had been surveyed and to allow for potential well settlement. The following sections provide a detailed description of the field activities conducted as part of the groundwater monitoring event.

4.4.1. Monitoring Well Headspace Vapor Monitoring

Monitoring well headspace vapors were measured using a PID. Headspace measurements were collected by inserting the PID probe into the well casing immediately after removing the well cap and recording the maximum observed concentration. Headspace vapors were measured at a concentration of 3.8 parts per million (ppm) in MW-3. Headspace vapor concentrations were less than 1.0 ppm for the remaining wells, as shown in Summary of Groundwater Field Parameters, Table 1.

4.4.2. Groundwater Elevation Monitoring

Static depth to groundwater was measured in groundwater monitoring wells SVMW-1 through SVMW-3 using an electronic water level indicator. Depth to groundwater ranged from 16.7 feet (MW-2) to 39.3 feet (MW-1) below the top of well casing, as presented in Summary of Groundwater level Measurements, Table 2. Groundwater elevations ranged from about 1,181.65 feet in SVMW-1 to 1,201.18 feet in SVMW-3 relative to the NAVD88. Groundwater measurements in SVMW-1 indicate that the well might not be screened within water bearing soils, as less than 1 foot of water was present in the well. Observed groundwater elevations for SVMW-1 are most likely not representative of actual conditions.

Based on groundwater elevations measured in SVMW-2 and SVMW-3 on September 18, 2014, groundwater flow in the shallow unconfined aquifer beneath the property generally was southerly. Gradient could not be determined because of the lack of water in SVMW-1.

4.4.3. Groundwater Sampling

Groundwater monitoring wells were purged and sampled using dedicated tubing, a peristaltic pump and standard low-flow sampling methodology (Environmental Protection Agency [EPA], 1996). Groundwater quality parameters were usually measured at 3-minute intervals during well purging and samples were generally collected when water quality parameter stabilized in conformance with the criteria presented in Appendix A or 30 minutes of purging had elapsed.

Laboratory prepared sample containers were filled, placed into a cooler on ice and submitted to the analytical laboratory for chemical analysis. One sample from each well was measured for soluble ferrous iron (Fe^{2+}) in the field using a Hach IR-18C color disc test kit and the 1,10 phenanthroline testing method. A duplicate sample was collected from SVMW-2. Chemical analytical results are discussed in "Section 5.4." Groundwater field parameters are provided in Table 1. Purge water generated during groundwater sampling was drummed, labeled and stored on the subject property pending profiling and disposal.

5.0 CHEMICAL ANALYTICAL RESULTS

5.1. Soil Chemical Analytical Results

5.1.1. Direct Push Borings

Soil samples from the direct push borings advanced on April 14, 2014 were received by TestAmerica for chemical analysis on April 17, 2014. Soil samples were kept in iced coolers between sampling and delivery to the analytical laboratory. One soil sample from SVDP-1, SVDP-2, SVDP-3, SVDP-5 and SVDP-6 and a second sample from SVDP-2 was submitted for laboratory chemical analysis. Field screening from SVDP-4 did not indicate the presence of petroleum and therefore a soil sample was not submitted for chemical analysis. Soil samples from the direct push soil borings were submitted for the following chemical analyses:

- GRPH (NWTPH-Gx);
- Diesel Range Petroleum Hydrocarbons (DRPH) (NWTPH-Dx);
- Total Petroleum Hydrocarbons (TPH) (NWTPH-HCID), direct push soil borings only;
- BTEX by (EPA 8260C);
- Naphthalene (EPA 8270D);
- Ethylene Dibromide (EDB) (EPA 8011);
- 1,2-dichloroethane (EDC) (EPA 8260C);
- Methyl tertiary-butyl ether (MTBE) (EPA Method 8260C); and
- Total Lead (EPA 6010C).

Soil analytical results are summarized and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results - Soil, Table 3. Chemical analytical results for the submitted soil samples are generally summarized by the following:

- SVDP-1 and SVDP-2 exceeded MTCA Method A cleanup levels for GRPH, BTEX and Naphthalene.
- DRPH was detected in SVDP-1, SVDP-2, SVMW-1 and SVMW-3 but concentrations were less than MTCA Method A cleanup levels.

Additional samples and chemical constituents analyzed were either not detected or detected at concentrations below MTCA Method A cleanup levels. Laboratory analytical reports are included in Appendix B.

5.1.2. Monitoring Well Installation

Three soil samples and one duplicate (one sample from each well installation) collected from the unsaturated zone were shipped to TestAmerica on August 4, 2014 for the chemical analyses listed in "Section 5.1.1." Soil samples from SVMW-1, SVMW-2 and SVMW-3 were collected on July 28, July 31 and August 1, 2014 respectively. A duplicate sample from SVMW-3 was collected on August 1, 2014. Soil samples were kept in ice filled coolers between sampling and delivery to the analytical laboratory.

Soil analytical results are summarized and compared to MTCA Method A cleanup levels in Table 3. Chemical analytical results for the submitted soil samples are generally summarized by the following:

- SVMW-3 exceeded MTCA Method A cleanup levels for GRPH, benzene, ethylbenzene and xylenes.

Additional samples and chemical constituents analyzed were either not detected or detected at concentrations below MTCA Method A cleanup levels. Laboratory analytical reports are included in Appendix B.

5.2. Groundwater Chemical Analytical Results

5.2.1. Direct-Push Borings

Groundwater was encountered and sampled from SVDP-1 and SVDP-2 on April 14, 2014. Groundwater samples were analyzed for GRPH, DRPH and heavy oil-range petroleum hydrocarbons (ORPH) using the NWTPH-HCID method. Analytical results indicated the presence of GRPH, DRPH and ORPH in groundwater collected from SVDP-1 and SVDP-2.

5.2.2. Quarterly Groundwater Monitoring

Groundwater samples were collected from SVMW-1, SVMW-2 and SVMW-3 on September 18, 2014 and received by TestAmerica for chemical analysis on September 19, 2014. Groundwater samples were kept in iced coolers between sampling and delivery to the analytical laboratory. Groundwater samples from SVMW-2 and SVMW-3 were submitted for the following chemical analyses:

- GRPH (NWTPH-GX);
- DRPH (NWTPH-DX, with and without silica gel);
- Volatile organic compounds (VOCs) (EPA 8260c);
- Polycyclic Aromatic Hydrocarbons (PAHs) (EPA 8270D);
- Total Organic Carbon (TOC) (SM5310B); and
- Nitrate and Sulfate by (EPA 300).

Limited water available from SVMW-1 reduced the number of analyses that could be conducted. Water sampled from SVMW-1 was analyzed for GRPH, VOCs, PAHs, nitrate and sulfate. Water from SVMW-1 was not analyzed for DRPH or TOC. Chemical analytical results are summarized and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results - Groundwater, Table 4. PAH analytical results are summarized and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results – Groundwater, PAHs, Table 5. Chemical analytical results for the submitted groundwater samples are summarized by the following:

- SVMW-3 exceeded MTCA Method A cleanup levels for GRPH, BTEX and Naphthalene.

Additional samples and chemical constituents analyzed were either not detected or detected at concentrations less than MTCA Method A cleanup levels. Laboratory analytical reports are included in Appendix B.

6.0 SUMMARY, INTERPRETATIONS AND RECOMMENDATIONS

6.1. Soil Assessment

Observed subsurface conditions indicate the site is generally underlain by fine sand, silts and clays with occasional gravel. Soil observed in the borings indicate a possible low permeability layer at a depth of approximately 20 to 25 feet. Increased silt and clay contents were observed at depths from about 20 to 25 feet which is near the termination depth of most borings. Soil encountered in MW-1 indicate the low permeable layer might be approximately 12 feet thick. According to the soils observed during the installation of MW-1, the 12-foot-thick impermeable layer is underlain by approximately 5 to 6 feet of medium fine sand and then gravel with varying sand and silt content up to the termination depth of 70 feet. Soils observed in MW-1 indicate possible depositional settling beginning at a depth of about 20 feet, where coarser materials are overlain by progressively finer grained material.

6.2. Groundwater Assessment

Depth to groundwater was measured at the three groundwater monitoring wells in September 2014. Conditions observed in MW-1 indicate the well is not screened within a water bearing subsurface stratum. As observed from the two shallower groundwater monitoring wells (MW-2 and MW-3) groundwater flow direction might be southerly within the shallow unconfined aquifer. The southerly flow direction is indicated by the higher groundwater elevation calculated for SVMW-3 and comparing it to the lower groundwater elevation calculated for SVMW-2. A more accurate description of groundwater flow direction can't be made without a third monitoring well. Groundwater elevations are shown on Figure 2.

6.3. Chemical Analytical Results and Interpretations

6.3.1. Soil

Soil analytical results indicate the presence of GRPH, BTEX and naphthalenes contamination exceeding MTCA Method A cleanup levels near SVDP-1, SVDP-2 and SVMW-3 near the southern fuel dispenser island and former tank pit. DRPH was detected in SVDP-1, SVDP-2, SVMW-1 and SVMW-3, but concentrations were less than half the MTCA Method A cleanup levels. Shallow petroleum contamination noted near the western fuel dispenser island in 2005 was not observed during the 2014 direct-push soil sampling.

The locations of SVDP-2 and SVMW-3 relative to the former fuel dispenser island and former tank pit, indicate that gasoline subsurface contamination might have originated near the former tank pit/southern fuel dispenser island and migrated to the south. Historical documentation provided as a result of tank removal activities in 2005 indicated the presence of petroleum hydrocarbons at the bottom of the former tank pit. The western and southern extents of soil contamination is generally unknown.

Petroleum contamination might extend to the south under the sidewalk and Summitview Avenue. Observations during the installation of SVMW-2 do not indicate petroleum has migrated south of Summitview Avenue to the private residence. Underground utilities installed below and adjacent to Summitview Avenue might have impacted contaminant migration to the south, dependent of installed depths.

Contamination depths might extend from approximately 8 to 22 feet bgs. Field screening indicated the presence of contamination approximately 2 feet below the saturated zone of the upper unconfined aquifer and into the assumed low permeability layer. Subsurface cross sections and field PID readings are provided

in Subsurface Cross Section A-A' and PID Readings, Figure 3 and Subsurface Cross Section B-B' and PID Readings, Figure 4.

6.3.2. Groundwater

Groundwater laboratory analytical results indicate GRPH, benzene, xylenes and naphthalenes exceeding MTCA Method A cleanup criteria in SVMW-3, located south of the former tank pit and south fuel dispenser island. Analytical results of groundwater collected from SVMW-2 located across Summitview Avenue did not indicate the presence of petroleum hydrocarbons. Laboratory analytical results from SVMW-1 did not indicate the presence of petroleum related contaminants; however, this well is believed to be screened in a non-water bearing subsurface stratum and the limited water collected from the well might not be representative of actual subsurface conditions.

6.4. Recommendations

Soil and groundwater contamination greater than MTCA Method A cleanup levels was observed south and west of the former tank pit and fuel dispenser island. Further investigation is needed to delineate the extent of contamination at this site. We recommend the following activities to address data gaps at the site:

- Further investigation in the northeast, east and west portions of the site in order to delineate the extent of contamination. This could be accomplished using direct push soil borings.
- Installation of at least one additional monitoring well within the upper unconfined aquifer in order to determine site gradient and contamination extents.
- An investigation and assessment of utilities installed adjacent and under Summitview Avenue to estimate potential pathways for contaminant migrations into utility corridors.
- Possible remedial actions based on the results of continued monitoring.

7.0 REFERENCES

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TABLES

GeoEngineers

Table 1

Summary of Groundwater Field Parameters[1]

Tiger Oil Summitview
Yakima, Washington

Well Number	Date Collected	pH	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP - Field[2] (mV)	ORP - Normalized[3] (mV)	Turbidity (NTU)	Soluble Ferrous Iron (mg/L)	Monitoring Well Headspace[4] (ppm)
MW-1	09/18/14	NM[5]	NM[5]	NM[5]	NM[5]	NM[5]	NA	NM[5]	NM[5]	0.0
MW-2	09/18/14	6.97	16.78	0.75	1.11	170	372	0.8	0.0	0.1
MW-3	09/18/14	6.81	17.14	0.78	0.96	-10	192	1.5	1.5	3.8

Notes:

[1]Reported water quality parameters reflect stabilized conditions at the conclusion of well purging during low-flow sampling.

[2]Field ORP values are relative to the reference electrode associated with the multi-parameter meter.

[3]Normalized ORP values have been normalized, using algorithms provided by the instrument manufacturer, to the standard hydrogen electrode (SHE).

[4]Well headspace measurements were obtained using a photoionization detector immediately upon removal of the well's compression cap.

[5]Not measured (NM) due to lack of water in well.

ORP = Oxidation reduction potential; °C = degrees Celsius; mS/cm = millisiemens per centimeter; mg/L = milligrams per liter; mV = millivolts; NT = not tested

Table 2

Summary of Groundwater Level Measurements

Tiger Oil Summitview
Yakima, Washington

Well Number	Grid Northing[1] (feet)	Grid Easting[1] (feet)	Top of Casing Elevation[2] (feet)	Screen Elevation[2] (feet)	Date Measured	Depth to Groundwater[3] (feet)	Groundwater Elevation[2] (feet)	Change in Groundwater Elevation[4] (feet)
SVMW-1	462054.5	1619556.5	1,220.95	1190.95 to 1180.95	09/18/14	39.30	1,181.65	NA
SVMW-2	461870.0	1619606.4	1,215.59	1204.59 to 1189.59	09/18/14	16.70	1,198.89	NA
SVMW-3	461949.3	1619606.4	1,218.38	1208.38 to 1193.38	09/18/14	17.20	1,201.18	NA

Notes:

[1]Grid northing and easting are referenced to NAD83, Washington State Plane Coordinate System, South Zone.

[2]Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).

[3]Depth to water measurements obtained from the north side of the top of PVC well casing.

[4]Represents change in groundwater elevation from previous monitoring event, as measured in monitoring wells.

ppm = parts per million; NA = Not Applicable; NM = Not Measured

Table 3

Summary of Chemical Analytical Results - Soil[1]

Tiger Oil Summitview
Yakima, Washington

Boring		SVDP-1	SVDP-2	SVDP-2	SVDP-3	SVDP-5	SVDP-6	SVMW-1	SVMW-2	SVMW-3	DUPLICATE (SVMW-3)
Sample Depth (feet)	Regulatory	13.5	19	21	7	19	18	17-18	7-8	17-18	17-18
Date Sampled	Levels[2]	04/14/14	04/14/14	04/14/14	04/14/14	04/14/14	04/14/14	07/28/14	07/31/14	08/01/14	08/01/14
Method EPA 8260C - NWTPH-Gx and Volatile Organic Compounds (mg/kg)											
Gasoline-range hydrocarbons	30/100[3]	**5,610**	**4,770**	**1,220**	<5.83	<5.76	<6.74	<5.80	<6.27	**1070**	**1160**
Benzene	0.03	**0.652**	**1.24**	**0.263**	<0.00583	<0.00576	<0.00674	<0.0174	<0.0188	**0.135**	**0.137**
Ethylbenzene	6	**86.1**	**51.4**	**9.47**	<0.117	<0.115	<0.135	<0.116	<0.125	**12.0**	**13.6**
Toluene	7	**98**	**81.2**	**10.9**	<0.117	<0.115	<0.135	<0.116	<0.125	4.65	4.60
o-Xylene	9[4]	**152**	**82.9**	**13.9**	<0.233	<0.230	<0.270	<0.232	<0.251	**18.7**	**20.6**
m,p-Xylene	9[4]	**388**	**215**	**34.3**	<0.466	<0.461	<0.539	<0.464	<0.502	**56.2**	**63.2**
Xylenes (total)	9[4]	**540**	**298**	**48.2**	<0.699	<0.691	<0.809	<0.696	<0.753	**74.9**	**83.8**
Methyl tert-butyl ether (MTBE)	0.1	<0.0575	<0.0694	<0.0554	<0.00699	<0.00691	<0.00809	<0.0348	<0.0376	<0.0364	<0.0364
1,2-Dichloroethane (EDC)	NE	<0.958	<1.16	<0.924	<0.117	<0.115	<0.135	<0.116	<0.125	<0.121	<0.121
Method EPA 8011 - EDB (µg/kg)											
1,2-Dibromoethane	5	<0.850	<1.04	<0.999	<1.13	<1.08	<1.11	<1.05	<0.950	<1.17	<1.15
Method EPA 8270D - Naphthalene by GC/MS with Selected Ion Monitoring (mg/kg)											
Naphthalene	5[5]	**17.8**	**9.46**	**0.296**	<0.0117	<0.0120	<0.0130	<0.0215	<0.0208	**1.68**	**1.58**
2-Methylnaphthalene	5[5]	**18.9**	**11.2**	**0.456**	<0.0117	<0.0120	<0.0130	<0.0215	<0.0208	**2.20**	**2.02**
1-Methylnaphthalene	5[5]	**8.11**	**5.01**	**0.199**	<0.0117	<0.0120	<0.0130	<0.0215	<0.0208	**1.14**	**1.18**
Method NWTPH-Dx - Semivolatile Petroleum Products (mg/kg)											
Diesel-range hydrocarbons	2,000	**640**	**344**	**51**	<22.2	<24.3	<24.1	**11.7**	<10.9	**51.6**	**41.6**
Heavy oil-range hydrocarbons	2,000	<65.5	<93.8	<69.7	**59.6**	<60.7	<60.3	**34.2**	<27.3	<25.9	<30.5
Method NWTPH-HCID - Hydrocarbon Identification (mg/kg)											
Gasoline-range hydrocarbons	30/100	**2,800**	**1,500**	**53**	<43	<47	<47	-	-	-	-
Diesel-range hydrocarbons	2,000	**920**	**470**	<110	<110	<120	<120	-	-	-	-
Heavy oil-range hydrocarbons	2,000	<93	<110	<110	<110	<120	<120	-	-	-	-
Method EPA 6010C - Metals Content (mg/kg)											
Lead	250	<2.86	**5.23**	**3.39**	**6.21**	**4.79**	**4.87**	**4.62**	**4.95**	**5.25**	**5.24**

Notes:

[1] Chemical analyses conducted by TestAmerica of Spokane, Washington.

[2] Regulatory level refers to Washington State Model Toxics Control Act (MTCA) Method A cleanup level unless otherwise footnoted.

[3] Gasoline-range petroleum hydrocarbon cleanup levels in soil are 30 mg/kg when benzene is detected and 100 mg/kg when benzene is not detected.

[4] Cleanup level for total xylenes.

[5] Cleanup level refers to sum of naphthalenes.

Bold indicates analyte concentration exceeds laboratory reporting limit.

Red Bold and outline indicates analyte concentration exceeds referenced regulatory level.

mg/kg = milligrams per kilogram; EPA = Washington State Environmental Protection Agency; NE = not established

Table 4

Summary of Chemical Analytical Results - Groundwater[1,2]

Tiger Oil Summitview

Yakima, Washington

Boring / Date Sampled	Regulatory Levels[3]	Method B Cleanup Levels[4]	SVDP-1 04/14/14	SVDP-2 04/14/14	SVMW-1 9/18/2014	SVMW-2 9/18/2014	Duplicate (MW-2) 9/18/2014	SVMW-3 9/18/2014
Method NWTPH-Gx - Hydrocarbon Identification (µg/L)								
Gasoline-range hydrocarbons	800/1,000		**3,700**	**41,000**	NT	NT	NT	NT
Diesel-range hydrocarbons	500		**950**	**16,000**	NT	NT	NT	NT
Heavy oil-range hydrocarbons	500		**620**	**940**	NT	NT	NT	NT
Conventionals (mg/L)								
Nitrate-Nitrogen	10[5]		NT	NT	**3.43**	**6.16**	**6.18**	**2.45**
Sulfate	250[6]		NT	NT	**28.6**	**32.0**	**32.0**	**15.4**
Total Organic Carbon	NE		NT	NT	NT	**4.39**	**2.34**	**3.45**
Method NWTPH-Gx - Gasoline Range (µg/L)								
Gasoline-range hydrocarbons	800/1,000		NT	NT	<100	<100	<100	**12,700**
Method NWTPH-Dx - Diesel Range (mg/L)								
Diesel-range hydrocarbons	500		NT	NT	NT	<239	<243	**815**
Diesel-range hydrocarbons w/silica gel	500		NT	NT	NT	NT	NT	**968**
Heavy Oil-Range Hydrocarbons	500		NT	NT	NT	<399	<404	<385
Heavy Oil-Range Hydrocarbons w/silica gel	500		NT	NT	NT	NT	NT	<385
Method EPA 8260 - VOCs (µg/L)								
1,1,1,2-Tetrachloroethane		1.68			<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	200		NT	NT	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane		0.219	NT	NT	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)		240,000	NT	NT	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane		0.768	NT	NT	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane		7.68	NT	NT	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene		0.481	NT	NT	<1.00	<1.00	<1.00	<1.00
1,1-Dichloropropene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichloropropane		0.00146	NT	NT	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene		1.51	NT	NT	<1.00	<1.00	<1.00	<1.00
1,2,4-Trimethylbenzene		NE	NT	NT	<1.00	<1.00	<1.00	**660**
1,2-Dibromo-3-Chloropropane		0.0547	NT	NT	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane (EDB)	0.01		NT	NT	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene (o-Dichlorobenzene)		7.20	NT	NT	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane (EDC)	5		NT	NT	<1.00	<1.00	<1.00	<1.00

Boring / Date Sampled	Regulatory Levels[3]	Method B Cleanup Levels[4]	SVDP-1 04/14/14	SVDP-2 04/14/14	SVMW-1 9/18/2014	SVMW-2 9/18/2014	Duplicate (MW-2) 9/18/2014	SVMW-3 9/18/2014
1,2-Dichloropropane		1.22	NT	NT	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene		80	NT	NT	<1.00	<1.00	<1.00	**140**
1,3-Dichlorobenzene (m-Dichlorobenzene)		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene (p-Dichlorobenzene)		8.1	NT	NT	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane		0.438	NT	NT	<1.00	<1.00	<1.00	<1.00
2-Butanone (MEK)		4,800	NT	NT	<10.0	<10.0	<10.0	**55.1**
2-Butanone, 4-(Acetyloxy)-		4,800	NT	NT	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene		160	NT	NT	<1.00	<1.00	<1.00	<1.00
2-Hexanone		NE	NT	NT	<10.0	<10.0	<10.0	<10.0
2-Propanol, 2-methyl-		NE	NT	NT	<5.00	<5.00	<5.00	<5.00
4-Chlorotoluene		160	NT	NT	<1.00	<1.00	<1.00	<1.00
Acetone		7,200	NT	NT	<25.0	<25.0	<25.0	**246**
Benzene	5		NT	NT	<0.200	<0.200	<0.200	**27.6**
Bromobenzene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Bromochloromethane		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Bromodichloromethane		0.706	NT	NT	<1.00	<1.00	<1.00	<1.00
Bromoform (Tribromomethane)		5.54	NT	NT	<1.00	<1.00	<1.00	<1.00
Bromomethane		11.2	NT	NT	<5.00	<5.00	<5.00	<5.00
Carbon Disulfide		800	NT	NT	<1.00	<1.00	<1.00	<1.00
Carbon Tetrachloride		0.625	NT	NT	<1.00	<1.00	<1.00	<1.00
Chlorobenzene		160	NT	NT	<1.00	<1.00	<1.00	<1.00
Chloroethane		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Chloroform		1.41	NT	NT	<1.00	<1.00	<1.00	<1.00
Chloromethane		NE	NT	NT	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Cis-1,3-Dichloropropene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Dibromochloromethane		0.521	NT	NT	<1.00	<1.00	<1.00	<1.00
Dibromomethane		80	NT	NT	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane (CFC-12)		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	700		NT	NT	<1.00	<1.00	<1.00	**436**
HCFC-21		NE	NT	NT	<0.200	<0.200	<0.200	**0.270**
Hexachlorobutadiene		0.561	NT	NT	<2.00	<2.00	<2.00	<2.00
Hexane		480	NT	NT	<1.00	<1.00	<1.00	**80.0**
Isopropylbenzene (Cumene)		800	NT	NT	<1.00	<1.00	<1.00	**33.6**
Methyl t-butyl ether (MTBE)	20		NT	NT	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	5		NT	NT	<10.0	<10.0	<10.0	<10.0
Naphthalene	160		NT	NT	<2.00	<2.00	<2.00	**236**

Boring / Date Sampled	Regulatory Levels[3]	Method B Cleanup Levels[4]	SVDP-1 04/14/14	SVDP-2 04/14/14	SVMW-1 9/18/2014	SVMW-2 9/18/2014	Duplicate (MW-2) 9/18/2014	SVMW-3 9/18/2014
n-Butylbenzene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
n-Propylbenzene		800	NT	NT	<1.00	<1.00	<1.00	**82.0**
p-Isopropyltoluene		NE	NT	NT	<1.00	<1.00	<1.00	**11.2**
Sec-Butylbenzene		NE	NT	NT	<1.00	<1.00	<1.00	**545**
Styrene		1,600	NT	NT	<1.00	<1.00	<1.00	<1.00
Tert-Butylbenzene		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	5		NT	NT	<1.00	<1.00	<1.00	<1.00
Toluene	1,000		NT	NT	<1.00	<1.00	<1.00	**422**
Trans-1,2-Dichloroethene		0.481	NT	NT	<1.00	<1.00	<1.00	<1.00
Trans-1,3-Dichloropropene		0.438	NT	NT	<1.00	<1.00	<1.00	<1.00
Trichloroethene	5		NT	NT	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane (CFC-11)		NE	NT	NT	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	0.2		NT	NT	<0.200	<0.200	<0.200	<0.200
Xylene, m-,p-	1,000[7]		NT	NT	<2.00	<2.00	<2.00	**2,000**
Xylene, o-			NT	NT	<1.00	<1.00	<1.00	**794**

Notes:

[1] Chemical analyses conducted by TestAmerica of Spokane, Washington.

[2] Analytes presented either have applicable cleanup levels or were detected at concentrations greater than reporting limits. Additonal analyte results are provided in the analytical reports.

[3] Regulatory level refers to Washington State Model Toxics Control Act (MTCA) Method A cleanup level, the maximum contaminant level (MCL) or the secondary maximum contaminant level (SMCL).

[4] Groundwater Method B cancer cleanup level, CLARC Data Tables, May 2014

[5] Maximum contaminant level established by Title 40, Volume 19 of the Code of Federal Regulations.

[6] Secondary maximum contaminant level recommeded by the Environmental Protection Agency.

[7] Cleanup level for total xylenes.

Bold indicates analyte concentration exceeds laboratory reporting limit.

Red Bold and outline indicates analyte concentration exceeds referenced regulatory level.

µg/L = micrograms per liter

Table 5

Summary of Chemical Analytical Results - Groundwater, PAHs[1]

Tiger Oil Summitview
Yakima, Washington

Location	Sample ID	Date Collected	Carcinogenic PAHs: Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	cPAH TEQ[2]	Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(ghi)perylene
	TEF[2]		0.1	1	0.1	0.1	0.01	0.1	0.1												
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Tiger Oil - Summitview	SVDP-1	04/14/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	SVDP-2	04/14/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	SVMW-1	09/18/14	<0.0260[3]	<0.0442[3]	<0.0286[3]	<0.0390[3]	<0.0286[3]	<0.0338[3]	<0.0572[3]	0.03[4]	<0.234	<0.234	<0.234	<0.234	<0.234	<0.234	<0.234	<0.234	<0.234	<0.234	<0.234
	SVMW-2	09/18/14	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	0.06	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856	<0.0856
	Duplicate (MW-2)	09/18/14	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	0.07	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863	<0.0863
	SVMW-3	09/18/14	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854	0.06	**178**	**48.4**	**29.3**	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854	<0.0854
MTCA Method A Unrestricted Land Use CUL[5]			NE	0.1	NE	NE	NE	NE	NE	0.1	5[6]			NE	NE	NE	NE	NE	NE	NE	NE

Notes:

[1]Polycyclic aromatic hydrocarbons (PAHs) analyzed using EPA Method 8270D by TestAmerica Laboratories, Inc., in Spokane, Washington.

[2]Carcinogenic PAH (cPAH) toxic equivalency (TEQ) calculated using toxicity equivalency factors (TEF) from MTCA Table 708-2, based on methodology described in MTCA Cleanup Regulation WAC 173-340-708. One half the reporting limit was used to calculate the TEQ.

[3]Reported value is the method detection limit, as the reporting limit exceeded the MTCA Method A level when used in the TEQ calculation.

[4]The TEQ reported was calculated using half the method detection limits.

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

[6]Total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.

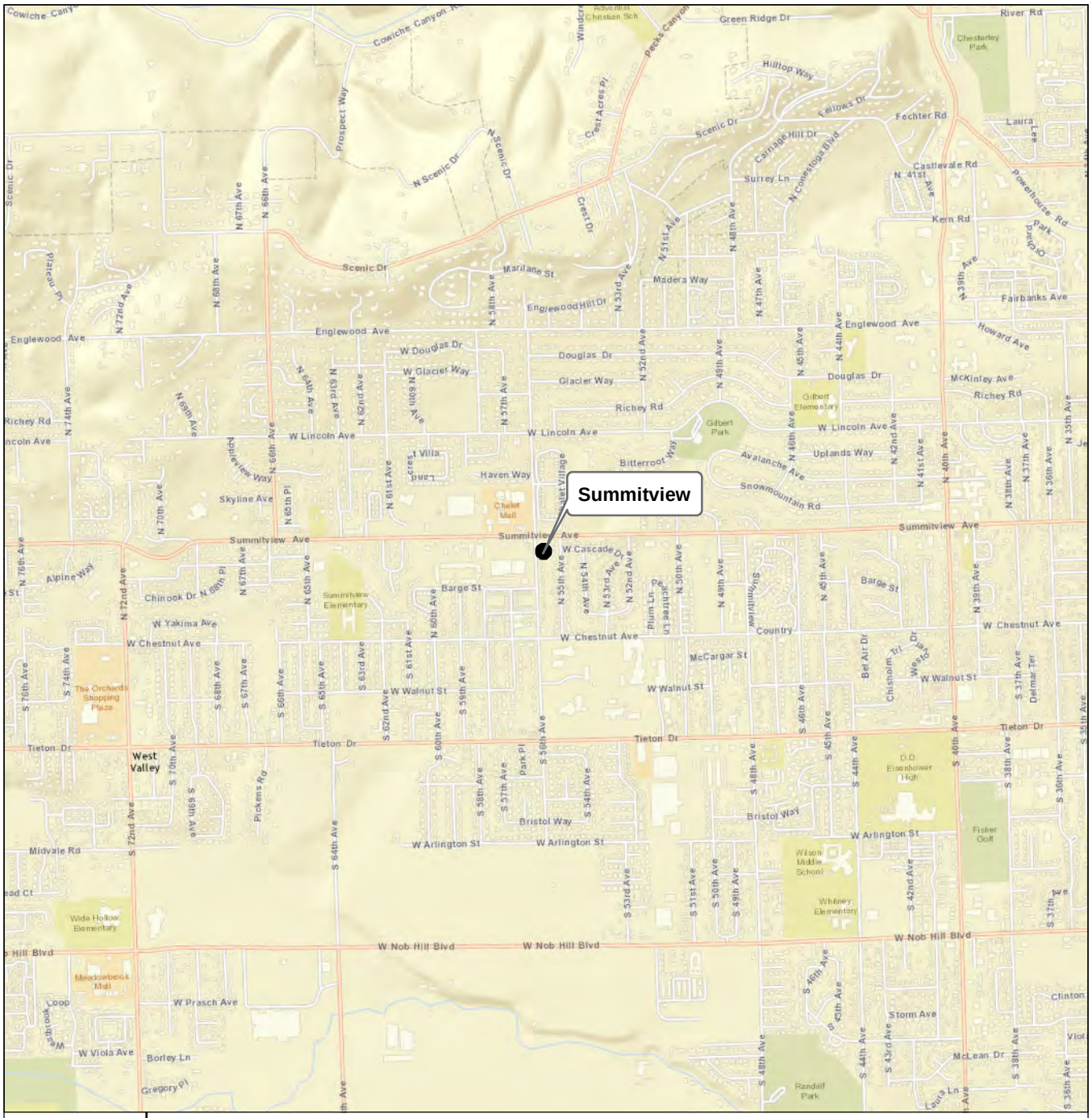
µg/L = micrograms per liter; NE = Not Established.

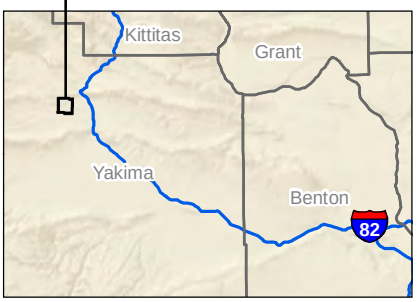
Bold indicates analyte concentration exceeds laboratory reporting limit.

Red Bold and outline indicates analyte concentration exceeds referenced regulatory level.

FIGURES

GeoEngineers





N
W E
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2,000 0 2,000
Feet

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. cannot 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.
Data Sources: ESRI Data & Maps, Street Maps 2008.
Base map from ESRI Data Online.
Projection: NAD 1983, UTM Zone 10 North.

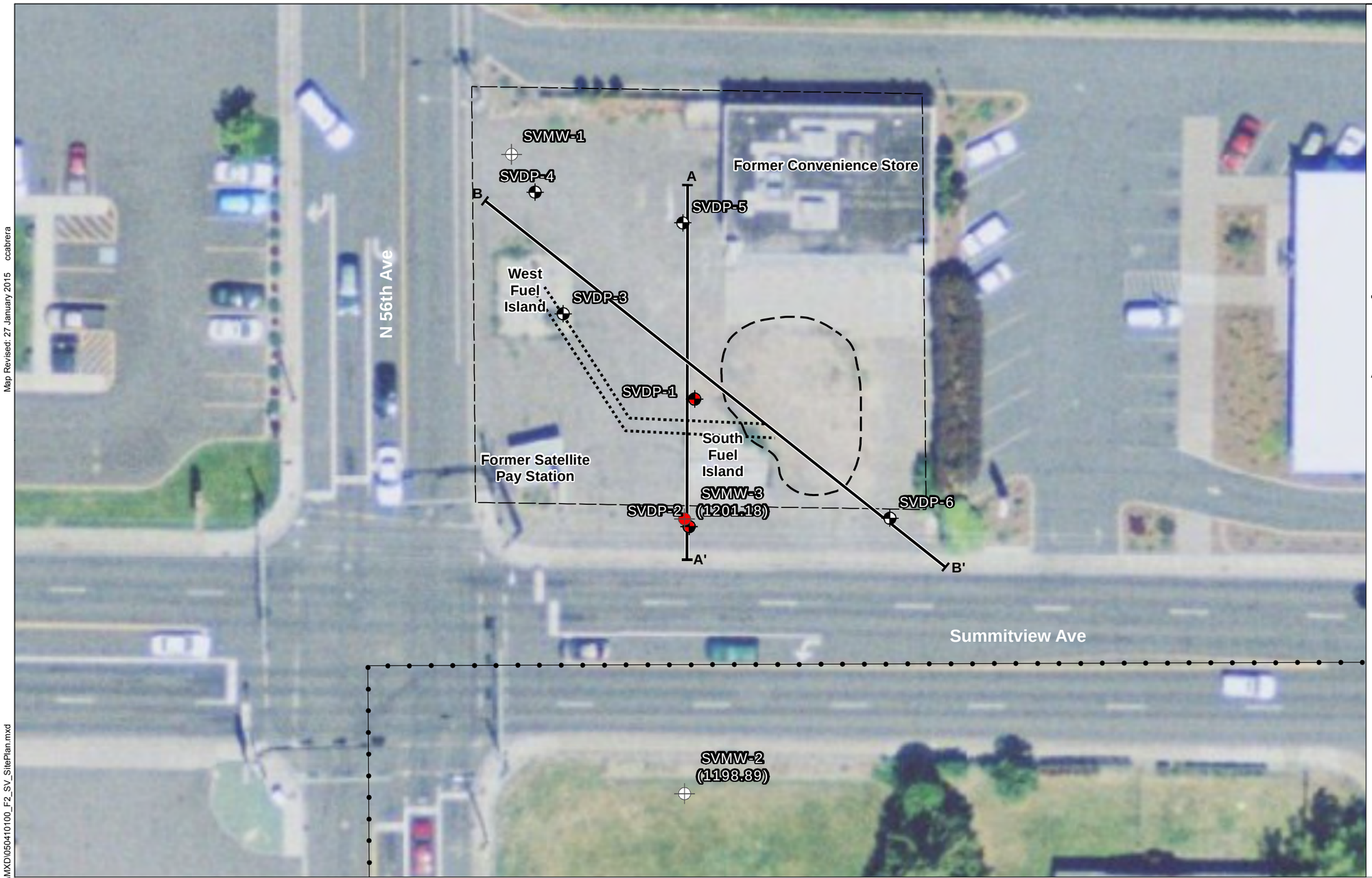
Vicinity Map

Tiger Oil Summitview
Yakima, Washington

GeoEngineers

Figure 1

Office: PORT Path: P:\0\0504101_GIS\MXD\050410100_F1_VM_SV.mxd Map Revised: 11 September 2014 ccabrera



Legend

- SVDP-3 — Approximate Soil Boring Location
- SVMW-1 — Approximate Monitoring Well Location and Groundwater Elevation
- GRPH and BTEX Concentrations in Soil and Groundwater Greater than MTCA Method A
- Approximate Location of Product Piping
- Approximate DID Line Location
- Approximate Former Tank Pit Location
- A — A' Approximate Subsurface Cross Section Location
- Approximate Property Boundary

N
W E
S

30 0 30
Feet

Data Source: Aerial base from ArcGIS Online.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet
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. cannot 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. Product piping location estimated from "Results of Underground Piping and Dispenser Island Sampling at Tiger Oil Corporation Facility, 5511 Summitview in Yakima, Washington". Figure 2 Wayne Perry, Inc. December 14, 2005.

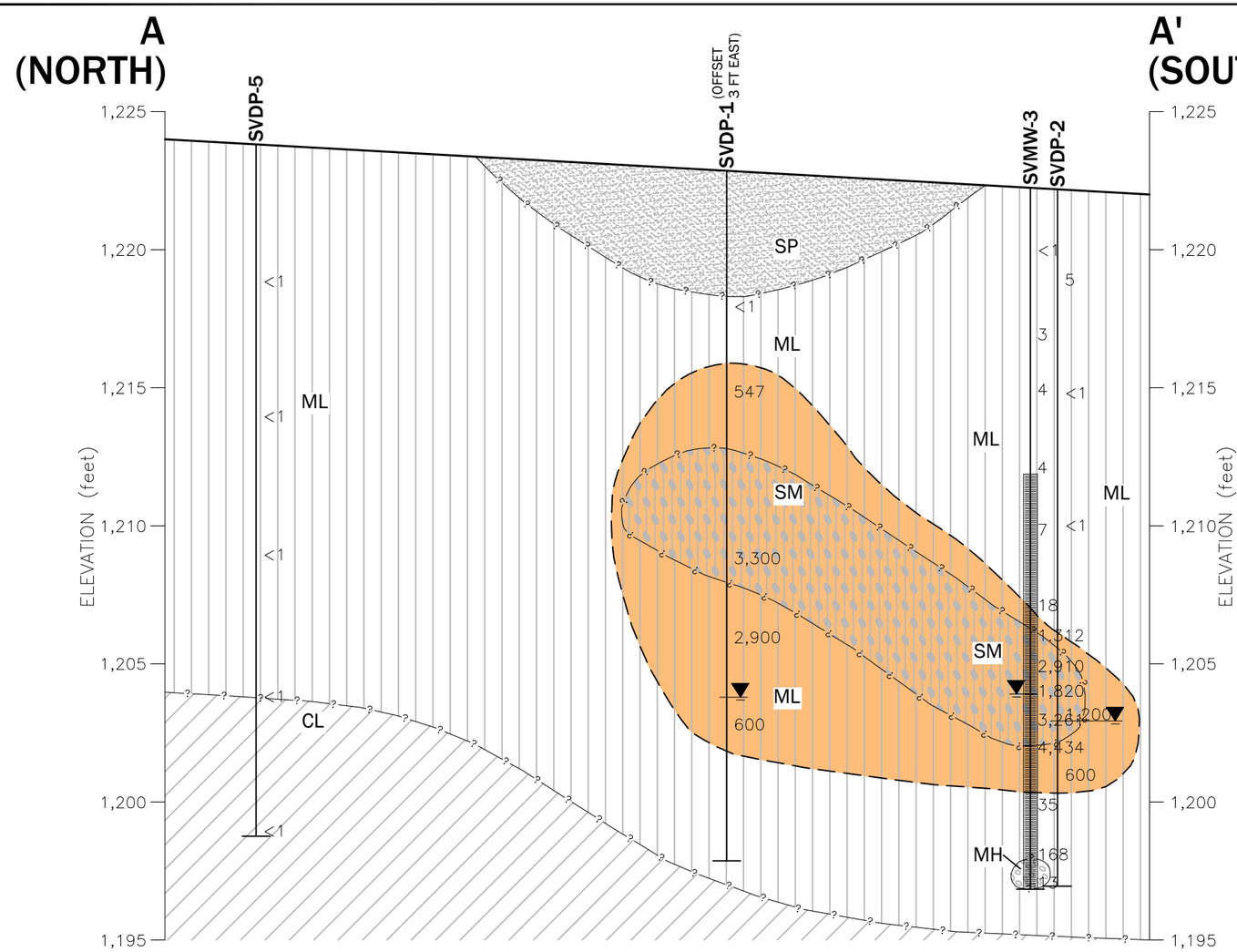
Site Plan and Sample Locations

Tiger Oil Summitview
Yakima, Washington

GeoEngineers

Figure 2

Map Revised: 27 January 2015 ccabrera
Path: P:\0\00504101_GIS\MXD\00504101_F2_SV_SitePlan.mxd
Office: PORT



LEGEND:

- BORING / MONITORING WELL NUMBER AND APPROXIMATE LOCATION
- PID READINGS
- SOIL TYPE AT SAMPLE LOCATION
- SOIL CONTACT
- MEASURED GROUNDWATER LEVEL IN EXPLORATION
- SCREEN LOCATION

> 500 ppm

UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

- SP
- ML
- SM
- MH
- CL

15 0 15
Horizontal Scale in Feet

5 0 5
Vertical Scale in Feet
Vertical Exaggeration: 3X

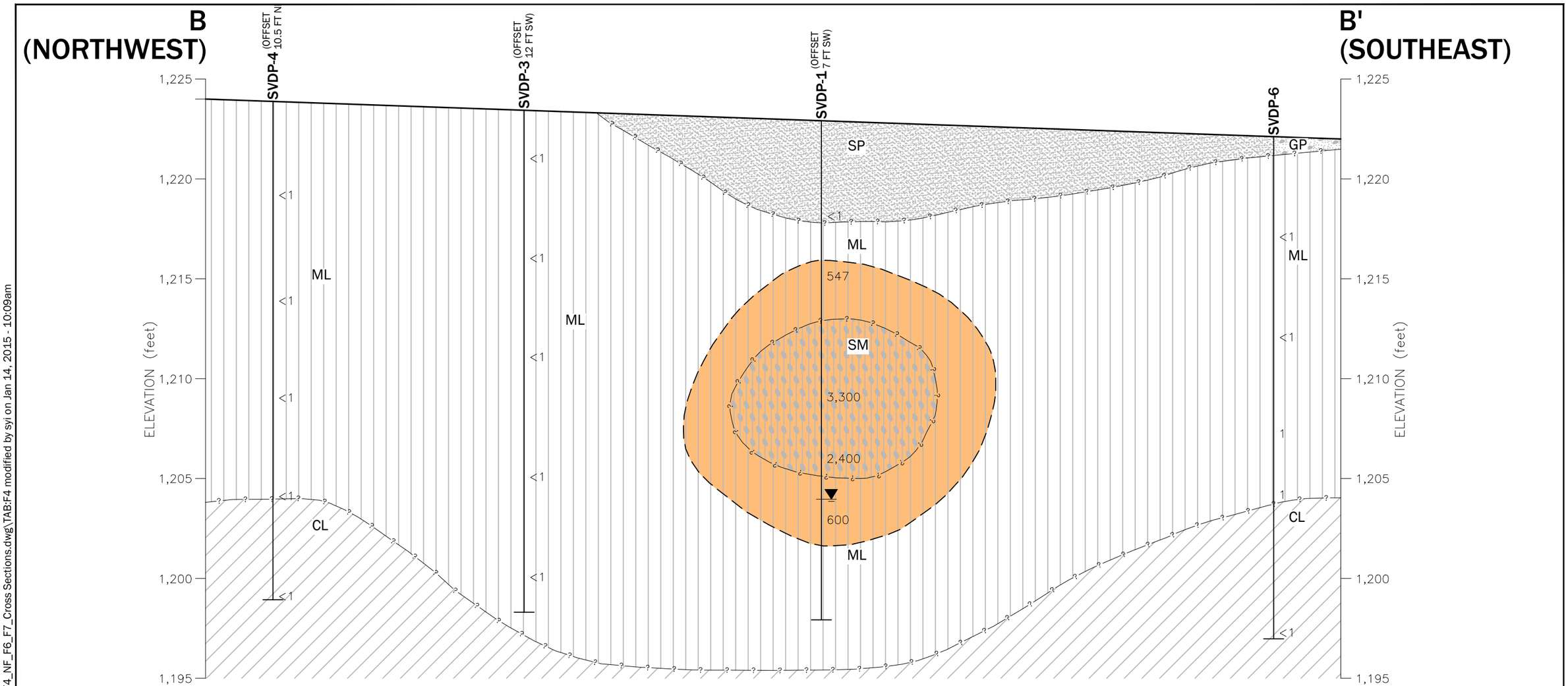
Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 2 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Subsurface Cross Section A-A' and PID Readings

Tiger Oil Summitview
Yakima, Washington

GeoEngineers

Figure 3



SVDP-1 (OFFSET 7 FT SW)
547
SP

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 2 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

LEGEND:

- BORING / MONITORING WELL NUMBER AND APPROXIMATE LOCATION
- PID READINGS
- SOIL TYPE AT SAMPLE LOCATION
- SOIL CONTACT
- MEASURED GROUNDWATER LEVEL IN EXPLORATION
- SCREEN LOCATION

> 500 ppm

UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

- SP
- GP
- ML
- SM
- CL

15 0 15
Horizontal Scale in Feet
5 0 5
Vertical Scale in Feet
Vertical Exaggeration: 3X

Subsurface Cross Section B-B' and PID Readings

Tiger Oil Summitview
Yakima, Washington

GeoEngineers

Figure 4

W:\Spokane\Projects\0\0504101\00\CAD\050410100_SV_F3_F4_NF_F6_F7_Cross Sections.dwg\TAB:F4 modified by syi on Jan 14, 2015 - 10:09am

APPENDICES

GeoEngineers

APPENDIX A
Field Methods and Boring Logs

APPENDIX A
FIELD METHODS AND BORING LOGS

General Soil Sampling Procedures

Samples were obtained using disposable nitrile gloves which were discarded after each use. Samples were placed in 4- or 9-ounce laboratory-supplied sample containers. Sample containers were filled to minimize headspace and labeled with a unique identification. Confirmation samples analyzed for VOCs were obtained using EPA Method 5035 sampling procedures. Samples were temporarily stored in an iced cooler before transfer to TestAmerica's Spokane Valley, Washington laboratory for analysis. Chain-of-custody protocols were followed.

Field Screening of Soil Samples

A GeoEngineers representative performed field screening of soil samples obtained during drilling activities. Field screening results are used as a general guideline to delineate depths with possible petroleum-related contamination. The screening methods used include: (1) visual screening; (2) water sheen screening; and (3) headspace vapor screening using a MiniRae PID calibrated to isobutylene.

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbon concentrations are high. Water sheen screening is a more sensitive method that has been effective in evaluating whether contaminant concentrations are less than regulatory cleanup guidelines.

Water sheen screening involves placing soil in water and observing the water surface for signs of sheen. Sheen screening might detect both volatile and nonvolatile petroleum hydrocarbons. Sheen classifications are as follows:

No Sheen	No visible sheen on water surface.
Slight Sheen	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil might produce a slight sheen.
Moderate Sheen	Light to heavy sheen; might have some color/iridescence; spread is irregular to flowing, might be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen	Heavy sheen with color/iridescence; spread is rapid; entire water surface might 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. The probe of the PID was then inserted into the bag to measure VOCs in the air within the bag. 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 pp), with a resolution of +/- 2 ppm.

Field screening results are site-specific. The effectiveness of field screening results will 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 petroleum hydrocarbons.

Monitoring Well Construction, Development and Surveying

The groundwater monitoring wells were constructed in general accordance with Chapter 173-160, Section 400 of the Washington Administrative Code (WAC), titled Washington State Resource Protection Well Construction Standards. Monitoring well records were submitted in accordance with Washington State monitoring well construction standards. Monitoring well installations were observed and documented by a GeoEngineers field representative.

The groundwater monitoring wells were installed using sonic drilling equipment and were constructed of 2-inch-diameter, Schedule 40 PVC casing and 0.01-inch slot width well screens. Well screen depths were based on groundwater conditions observed in the field such that the top of the shallow water table intercepted the well screen.

Each well was constructed with a bentonite seal and a flush-mount surface monument. A lockable cap was installed in the top of the PVC well casing. A concrete surface seal was placed around the monument at the ground surface to divert surface water away from the well location. Each well was developed using surging and pumping; wells were surged and then pumped until the development water was clear. This process was repeated until at least approximately five well volumes were removed from the well.

The monitoring well was developed to remove water introduced into the well during drilling (if any), stabilize the filter pack and formation materials surrounding the well screen, and restore the hydraulic connection between the well screen and the surrounding soil. The depth to water in the monitoring well was measured prior to development. The total depth of the well was measured and recorded. The groundwater monitoring wells were developed by pumping, surging, bailing, or a combination of these methods after construction. Development of the well continued until the water was as free of sediment as practicable, with respect to the composition of the subsurface materials within the screened interval. The removal rate and amount of groundwater removed was recorded during the well development procedures. Development purge water was collected and stored on site.

The locations of the groundwater monitoring wells were established in the field using a hand-held iPad with GPS software, and subsequently surveyed by a licensed surveyor.

Depth to Groundwater

Depth to groundwater measurements from the new wells were collected and recorded in the field notebook after the water level stabilized after well development. Depth to groundwater relative to the marked north side of the monitoring well casing rims was measured to the nearest 0.01 foot using an electronic water level indicator and recorded in the field notebook. Groundwater elevation was calculated by subtracting the depth-to-water measurement from the surveyed casing rim elevation. The electronic water level indicator was decontaminated with Liquinox® solution wash and a distilled water rinse prior to use in each well.

Groundwater Sampling

Following depth to groundwater measurements, groundwater samples were collected from the installed groundwater monitoring wells consistent with the EPA's low-flow groundwater sampling procedures (EPA, 1996 and Puls and Barcelona, 1996). Dedicated polyethylene tubing and a portable peristaltic pump

were used for groundwater purging and sampling. During purging activities, water quality parameters, including pH, temperature, conductivity, dissolved oxygen, and turbidity were measured using a multi-parameter meter equipped with a flow-through cell. Groundwater samples were collected after (1) water quality parameters stabilized; or (2) a maximum purge time of 30 minutes was achieved. During purging and sampling, drawdown was not allowed to exceed 0.3 feet and the purge rate did not exceed 400 milliliters per minute. Water quality parameter stabilization criteria included the following:

- Turbidity: ±10 percent for values greater than 5 nephelometric turbidity units (ntu);
- Conductivity: ±3 percent;
- pH: ±0.1 unit;
- Temperature: ±3 percent; and
- Dissolved oxygen: ± 10 percent.

Field water quality measurements and depth-to-water measurements were recorded on a Well Purging-Field Water Quality Measurement Form. The groundwater samples were transferred in the field to laboratory-prepared sample containers and kept cool during transport to the testing laboratory. Chain-of-custody procedures were observed from the time of sample collection to delivery to the testing laboratory consistent with the QAPP.

Location Control

The locations of the borings and groundwater monitoring wells were established in the field using a hand-held iPad with GPS software. The horizontal accuracy of the hand-held unit is within about 10 feet. Upon completion, horizontal and vertical locations of the groundwater monitoring wells were survey by a licensed professional surveyor and referenced to NAD83 and NAVD88 respectively. The horizontal coordinates of the groundwater monitoring wells and the elevation of the benchmark established at the site were determined using a Topcon GR-3 GPS receiver with a nominal accuracy of 10 mm + 1 ppm horizontal and 15 mm + 1 ppm vertical. The elevation of the monitoring wells are relative to the benchmark established at the site and were individually determined using a Leica DNA03 digital level with a vertical accuracy of +/- 0.01 feet.

Decontamination Procedures

The objective of the decontamination procedure was to minimize the potential for cross contamination between exploration locations and between individual samples within a specific exploration. A designated decontamination area was established for decontamination of drilling equipment and reusable sampling equipment. Drilling equipment was cleaned using pressure washing equipment.

Sampling or measurement equipment was decontaminated in accordance with the following procedures before each sampling attempt or measurement:

- Brush equipment with a wire brush, if necessary, to remove large particulate matter.
- Rinse with potable tap water.
- Wash with non-phosphate detergent solution (LiquiNox® and potable tap water).
- Rinse with potable tap water.

- Rinse with distilled water.

Handling of Investigation-Derived Waste

IDW (drill cuttings and development and purge water), was placed in U.S. Department of Transportation (DOT) approved 55-gallon drums. The drums were labeled with the exploration number, general contents, and date. IDW generated on site was placed in drums and is pending pickup for disposal at an appropriate facility.

Disposable items, such as sample tubing, direct-push sampler acrylic sleeves, gloves and paper towels, etc., were placed in plastic bags after use and deposited in trash receptacles for disposal.

Laboratory Analytical Plan

Method Reporting Limit (MRL) goals were based on Ecology MTCA soil or groundwater cleanup criteria. The following methods were used for the soil and groundwater samples:

Soil

- GRPH (NWTPH-Gx);
- DRPH (NWTPH-Dx);
- TPH (NWTPH-HCID), direct push soil borings only;
- BTEX by (EPA 8260C);
- PAHs (EPA 8270D);
- EDB (EPA 8011);
- EDC (EPA 8260C);
- MTBE (EPA Method 8260C); and
- Total Lead (EPA 6010C).

Groundwater

- GRPH (NWTPH-GX);
- DRPH (NWTPH-DX);
- VOCs (EPA 8260c);
- PAHs (EPA 8270D)
- TOC (SM5310B);
- Nitrate and Sulfate by (EPA 300); and
- Ferrous Iron (Field Test, Hach 26672-88).

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
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

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
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
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 4/14/2014 End 4/14/2014	Total Depth (ft) 25	Logged By JML Checked By JER	Driller Cascade	Drilling Method Geoprobe
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data		Drilling Equipment Geoprobe 6600 Truck Mount
Easting (X) Northing (Y)		System Datum		Groundwater: Date Measured 4/14/2014; Depth to Water (ft) 19.0; Elevation (ft)
Notes:				

Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0		42					SP	Brown fine to medium sand with trace gravel (medium dense, moist)			
5		40		SVDP-1:3'			ML	Brown sandy silt with trace gravel (medium dense, moist)	NS	<1	
				SVDP-1:8'					SS	547	
10		47					SM	Brown to gray silty sand with trace gravel (medium dense, moist)			
				SVDP-1:13.5' CA					SS	3300	
15		60					SM	Brown silty sand with trace gravel (medium dense, moist)			
				SVDP-1:17'					SS	2400	
					▼		ML	Brown clayey silt (medium dense, moist)			Groundwater observed at approximately 19 feet below ground surface during drilling
20		60		SVDP-1:20'			ML	Brown sandy silt with trace clay (very dense, wet)	SS	600	
25											

Note: See Figure A-1 for explanation of symbols.

Log of Boring SVDP-1

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-2
Sheet 1 of 1

Drilled Start 4/14/2014 End 4/14/2014	Total Depth (ft) 25	Logged By JML Checked By JER	Driller Cascade	Drilling Method Geoprobe	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data		Drilling Equipment Geoprobe 6600 Truck Mount	
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured 4/14/2014	Depth to Water (ft) 19.0
Notes:					Elevation (ft)

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48						AC	Approximately 2 inches of asphalt concrete pavement			
									ML	Brown sandy silt with trace gravel (medium dense, moist)			
						SVDP-2:3'						5	
	5		53										
						SVDP-2:7'					NS	<1	
	10		39						ML	Brown silt with trace gravel and sand (medium dense, moist)			
						SVDP-2:12'					NS	<1	
	15		54										
						SVDP-2:19' CA	▼		ML	Gray sandy silt with trace gravel and clay (medium dense, moist)	SS	1200	Groundwater observed at approximately 19 feet during drilling.
	20		36										
						SVDP-2:21' CA					SS	600	
	25								ML	Dark brown clayey silt with trace gravel (very dense, wet)			

Note: See Figure A-1 for explanation of symbols.

Log of Boring SVDP-2

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-3
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/14/2014	4/14/2014	25	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		35						AC	Approximately 2 inches asphalt concrete pavement			
									ML	Brown silt with trace sand and gravel (medium dense, moist)	NS	<1	
	5		60			SVDP-3:7' CA					NS	<1	
	10		51			SVDP-3:12'			ML	Brown sandy silt with trace gravel (very dense, moist)	NS	<1	
	15		54			SVDP-3:18'			ML	Brown clayey silt with trace gravel (very dense, moist to wet)	NS	<1	
	20		60			SVDP-3:23'					NS	<1	No groundwater observed during drilling
	25								ML	Brown clayey silt with trace gravel (very dense, moist)			

Note: See Figure A-1 for explanation of symbols.

Log of Boring SVDP-3

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-4
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/14/2014	4/14/2014	25	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		55						AC	Approximately 2 inches asphalt concrete pavement			
									ML	Brown silt with trace sand and gravel (medium dense, moist)			
	5		56								NS	<1	
	10		10						ML	Brown clayey silt with trace of fine sand and gravel (mottled iron staining)	NS	<1	
	15		60								NS	<1	
						SVDP-4:19'					NS	<1	
	20		60						CL	Brown silty clay with trace fine sand (very dense, moist) (clay is mottled with iron staining)			
	25										NS	<1	No groundwater observed during drilling

Note: See Figure A-1 for explanation of symbols.

Log of Boring SVDP-4

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-5
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/14/2014	4/14/2014	25	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36						AC	Approximately 2 inches asphalt concrete pavement			
									ML	Brown silt with trace fine sand and gravel (medium dense, moist)			
	5		60						ML	Brown sandy silt with trace gravel (very dense, moist)	NS	<1	
	10		45								NS	<1	
	15		48						ML	Brown clayey silt with trace fine sand and gravel (very dense, moist to wet)	NS	<1	
						SVDP-5:19' CA					NS	<1	
	20		60						CL	Brown silty clay mottled with iron staining (very dense, moist)			
	25									No groundwater observed during drilling	NS	<1	No groundwater observed during drilling

Note: See Figure A-1 for explanation of symbols.

Log of Boring SVDP-5

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-6
Sheet 1 of 1

Drilled Start 4/14/2014 End 4/14/2014	Total Depth (ft) 25	Logged By JML Checked By JER	Driller Cascade	Drilling Method Geoprobe	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data		Drilling Equipment Geoprobe 6600 Truck Mount	
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		50						AC	Approximately 2 inches asphalt concrete pavement			
									GP	Gray sandy gravel (medium dense, dry) (fill)			
									ML	Brown sandy silt with trace gravel (medium dense, moist)			
	5		55						ML	Brown silt with trace fine sand and gravel (medium dense, moist)	NS	<1	
	10		51						ML	Brown sandy silt with trace gravel (medium dense, moist)	NS	<1	
	15		53						ML	Brown sandy silt with trace gravel (medium dense, moist to wet)	NS	1	
						SVDP-6:18' CA			CL	Brown clayey silt (very dense, moist)	NS	1	
	20		60						CL	Brown clay mottled with iron staining (very dense, moist)			
	25										NS	<1	No groundwater observed during drilling

Note: See Figure A-1 for explanation of symbols.

Log of Boring SVDP-6

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-7
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
7/28/2014	7/31/2014	70	AJF / JRS	Cascade Drilling	Sonic

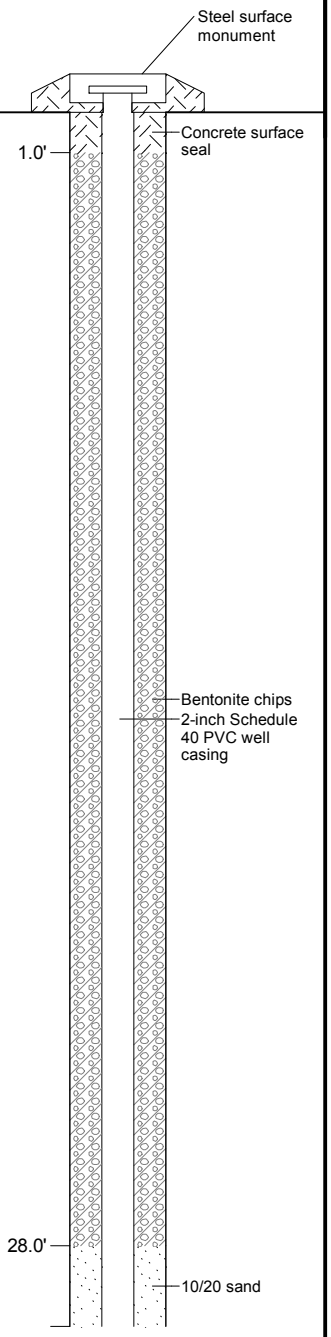
Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1221.23	Top of Casing Elevation (ft)	1220.95
Vertical Datum	NAVD88		
Easting (X)	1619556.5	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	462054.5		

DOE Well I.D.: BIE 510
A 2 (in) well was installed on 7/31/2014 to a depth of 40 (ft).

Groundwater		
Date Measured	Depth to Water (ft)	Elevation (ft)
7/31/2014	30.7	1190.3

Notes:

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
1220	0							AC	Approximately 4 inches asphalt concrete pavement		
								GP	Gray angular coarse gravel (fill)		
								SM	Brown silt with little fine sand	NS	1.5
1215	5									NS	1.7
					SVMW-1 (7-8)					NS	3.1
								SP	Brown silty fine sand	NS	2.3
								GP	Brown sandy coarse rounded gravel with silt	NS	2.3
1210	10							SP	Brown fine to medium sand with little silt and gravel	NS	1.5
								SM	Brown silty fine sand Increasing moisture	NS	3.1
1205	15									NS	<1
					SVWM-1 (17-18) CA					NS	3.3
									Increasing gravel		
1200	20							MH	Light brown silt with little fine sand	NS	2.6
										NS	<1
1195	25									NS	<1
									Increasing density, hard clay layers less than 1 inch		
	30								Increasing sand and trace gravel	NS	<1



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well SVMW-1

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-8
Sheet 1 of 3

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	30					▼			(Driller informed that the conditions were getting more dense)	NS	3.0
1190								SP	Brown fine to medium sand with little silt and trace gravel		
										NS	2.2
	35										
1185											
					SVWM-1 (37-38)					NS	3.7
								GP	Brown sandy gravel with silt Becomes wet		
	40										
1180								GP	Brown-gray gravel with little sand	NS	2.7
									No longer wet	NS	<1
									Decreasing sand, occasional cobble		
	45									NS	4.8
1175									Increasing sand		
										NS	1.1
									Moist		
	50									NS	<1
1170											
										NS	3.9
									Increasing density		
										NS	3.5
	55							GP	Brown-gray sandy gravel		
1165											
										NS	3.7
									Decreasing cobbles, increasing orange sand; moist but not wet		
	60								Wet	NS	3.9
1160											
										NS	2.7
	65								Increasing silt	NS	3.8
1155											

WELL LOG

30.0'

10/20 sand

2-inch Schedule 40 PVC screen, 0.010-inch slot width

40.0'

42.0'

Bentonite chips

Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well SVMW-1 (continued)

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-8
Sheet 2 of 3

Spokane: Date: 1/26/15 Path:P:\0\0504101\GINT\050410100.GPJ DBTemplate\LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_WELL

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	WELL LOG
	70								Turns moist			70.0' Bentonite chips

Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well SVMW-1 (continued)

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

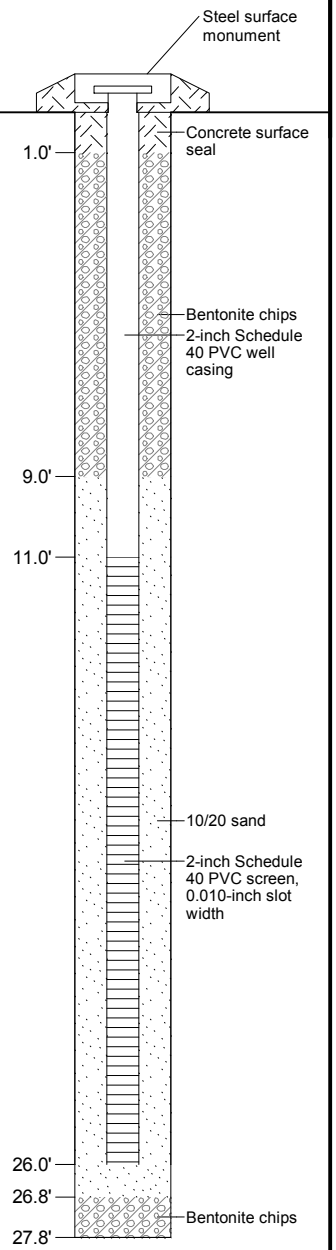
Figure A-8
Sheet 3 of 3

Drilled Start 7/31/2014	End 7/31/2014	Total Depth (ft) 27.8	Logged By AJF / Checked By JRS	Driller Cascade Drilling	Drilling Method Sonic
Hammer Data			Drilling Equipment 200C Spider		DOE Well I.D.: BIE 511 A 2 (in) well was installed on 7/31/2014 to a depth of 26 (ft).
Surface Elevation (ft) 1215.91 Vertical Datum NAVD88			Top of Casing Elevation (ft) 1215.59		Groundwater: Date Measured 7/31/2014; Depth to Water (ft) 19.0; Elevation (ft) 1196.6
Easting (X) 1619606.4 Northing (Y) 461870			Horizontal Datum NAD83/91 WA South Zone		

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
1215	0							ML	Light brown silt with fine sand (dry)		
					SVMW-2 (2-3)					NS	3.3
1210	5								Becomes moist	NS	1.9
					SVMW-2 (7-8) CA				With trace fine gravel	NS	19.7
									Becomes stiff		
1205	10								With trace cobbles and fine gravel	NS	13.8
									With trace gravel	NS	7.8
					SVMW-2 (14-15)				Becomes more moist		
1200	15							SP	Brown gravelly fine to coarse sand with small cobbles (wet)	NS	17.5
								GP	Brown-gray sandy gravel (wet)	NS	1.9
						▼		MH	Light brown silt with fine sand and orange mottling		
1195	20									NS	2.4
									Visible layering	NS	3.6
1190	25								Becomes more dense	NS	4.9
									With trace fine gravel	NS	3.8

WELL LOG



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well SVMW-2

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-9
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
8/1/2014	8/1/2014	25	AJF / JRS	Cascade Drilling	Sonic

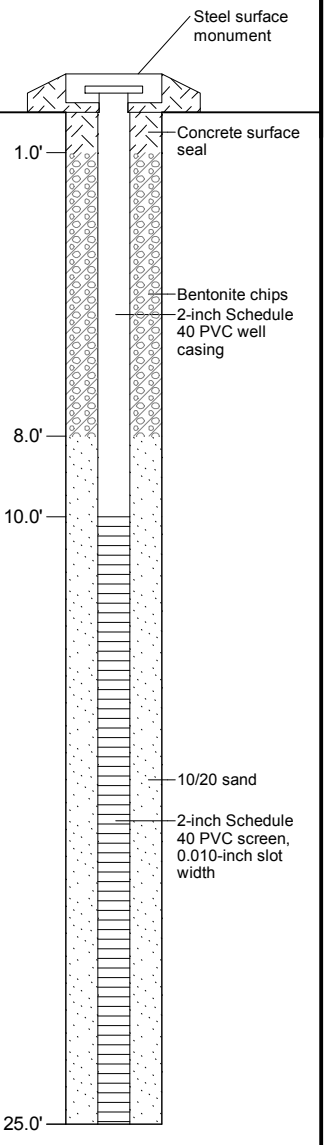
Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1218.67	Top of Casing Elevation (ft)	1218.38
Vertical Datum	NAVD88		
Easting (X)	1619606.4	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	461949.3		

DOE Well I.D.: BIE 512
A 2 (in) well was installed on 8/1/2014 to a depth of 25 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/1/2014	17.7	1200.7

Notes:

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0							AC	Approximately 6 inches asphalt concrete pavement		
								ML	Brown silt with fine sand (moist)		
										NS	<1
1215					SVWM-3 (4-5)						
	5									NS	3.0
									Increasing density	NS	3.9
1210									Trace fine gravel		
	10									NS	4.4
										NS	6.9
1205					SVWM-3 (14-15)						
	15							SM	Gray-brown silty fine to medium sand with trace gravel and orange mottling (strong hydrocarbon odor)	NS	17.7
										NS	1812
					SVWM-3 (17-18) CA	▼				NS	2810
1200										SS	1820
									Becomes wet	MS	3261
	20								Decreasing silt, increasing gravel	MS	4434
								MH	Light brown silt with fine sand and orange mottling		
										NS	35.3
1195										NS	167.8
	25									NS	12.7



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well SVMW-3

GeoEngineers

Project: Tiger Oil - Summitview
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-10
Sheet 1 of 1

APPENDIX B
Laboratory Reports

APPENDIX B
LABORATORY REPORTS

Samples

Chain-of-custody procedures were followed during the transport of the field samples to the accredited analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results and quality control records are included in this appendix.

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.

CHEMICAL ANALYTICAL LABORATORY REPORT AND DATA VALIDATION

General

This report documents the results of a United States EPA-defined Stage 2A data validation (EPA Document 540-R-08-005; EPA, 2009) of analytical data from the analyses of soil and groundwater samples collected as part of the 2014 sampling events, and the associated laboratory and field QC samples. The samples were obtained from the Tiger Oil, Summitview site located at 5511 Summitview Road in Yakima, Washington.

Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (EPA, 2008) and Inorganic Superfund Data Review (EPA, 2010) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The QA/QC procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with Quality Assurance Project Plan (Appendix A of the Sampling and Analysis Plan, Soil and Groundwater Assessment; GeoEngineers, 2014), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation

- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Miscellaneous

Validated Sample Delivery Groups

This data validation included review of the sample delivery groups (SDGs) listed below in Table B-1.

TABLE B-1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
SXD0112	041414:SVDP-1:13.5, 041414:SVDP-2:19, 041414:SVDP-2:21, 041414:SVDP-3:7, 041414:SVDP-5:19, 041414:SVDP-6:18, 041414:SVDP-1:GW, 041414:SVDP-2:GW
SXH0013	SVMW-1(17-18), SVMW-2(7-8), SVMW-3(17-18), Duplicate
SXI0130	SVMW-1-091814, SVMW-2-091814, SVMW-Dup-091814, SVMW-3-091814

Chemical Analysis Performed

TestAmerica, located in Spokane, Washington, performed laboratory analysis on the soil and groundwater samples using one or more of the following methods:

- Hydrocarbon Identification (NWTPH-HCID) by Method NWTPH-HCID;
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Petroleum Hydrocarbons with Silica Gel (SG) Cleanup (NWTPH-Dx/SG) by Method NWTPH-Dx/SG;
- GRPH (NWTPH-Gx) by Method NWTPH-Gx;
- BTEX, MTBE and EDC by Method SW8260C;
- VOCs by Method SW8260C;
- PAHs by Method SW8270D-SIM;
- Total Metals by Method EPA6010C;
- Anions by Method EPA300.0; and
- TOC by Method SM5310C.

Data Validation Summary

The results for each of the QC elements are summarized below.

Data Package Completeness

TestAmerica provided all required deliverables for the data validation according to the National Functional Guidelines. The laboratory appears to have followed adequate corrective action processes; however, the laboratory analytical report does not contain a case narrative.

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical report. The COCs were accurate and complete when submitted to the laboratory.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for all analyses. The sample coolers arrived at the laboratory within the appropriate temperatures of between 2 and 6 degrees Celsius, with the exception noted below.

SDG SXD0112: The sample cooler temperature recorded at the laboratory was 12.7 degrees Celsius. The samples were put on ice when they were collected (April 14, 2014) and ice was added every day until they were received by the laboratory (April 17, 2014). The out-of-compliance temperature was very likely isolated to the day the samples were received at the laboratory. For this reason, this temperature should not affect the sample analytical results.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries are calculated following analysis. All surrogate percent recoveries for field samples were within the laboratory control limits, with the following exception:

SDG SXD0112: (NWTPH-HCID) The percent recovery for surrogate 4-bromofluorobenzene recovered outside the control limits in Samples 041414:SVDP-1:13.5, 041414:SVDP-2:19, and 041414:SVDP-2:GW. The positive results for gasoline-range hydrocarbons were qualified as estimated (J) in these samples.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For all sample batches, method blanks for all applicable methods were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in any of the method blanks.

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the

associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

For inorganic methods, the matrix spike is followed by a post-digestion spike sample if any element percent recoveries were outside the control limits in the matrix spike. The percent recovery control limits for matrix spikes are 75 to 125 percent.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits, with the following exception:

SDG SXH0013: (PAHs) The laboratory performed an MS/MSD sample set on Sample Duplicate. The percent recoveries for naphthalene were less than the control limits in the MS/MSD sample set extracted on August 7, 2014. The positive results for naphthalene for qualified as estimated (J) in Sample SVMW-3(17-18) and Duplicate.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, the LCS/ laboratory control sample duplicate (LCSD) control limits for accuracy and precision are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent recovery control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. For organic analyses, the RPD control limits are specified in the laboratory documents. For inorganic analyses, the RPD control limit 20 percent. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exceptions:

SDG SXD0112: (NWTPH-HCID) A laboratory duplicate analysis was performed on Samples 041414:SVDP-3:7, 041414:SVDP-5:19, and 041414:SVDP-6:18. The RPD values for gasoline-, diesel-, and

heavy oil-range hydrocarbons were greater than the control limit. There were no positive results for these target analytes in the associated field samples; therefore, no action was required for these outliers.

SDG SXH0013: (NWTPH-Dx) A laboratory duplicate analysis was performed on Sample SVMW-1(17-18). The RPD values for diesel- and heavy oil-range hydrocarbons were greater than the control limit. The positive results for these target analytes were qualified as estimated (J) in this sample.

Field Duplicates

In order to assess precision, field duplicate samples are collected and analyzed along with the reviewed sample batches. The duplicate samples are analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit is 20 percent.

SDG SXH0013: One field duplicate sample pair, SVMW-3(17-18) and Duplicate, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair.

SDG SXI0130: One field duplicate sample pair, SVMW-2-091814 and SVMW-Dup-091814, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair, with the exception of TOC. The positive results for TOC were qualified as estimated (J) in these samples.

Miscellaneous

SDG SXH0199: (NWTPH-Dx and NWTPH-Dx/SG) For Sample SVMW-3-091814, the laboratory flagged the diesel-range hydrocarbons results with "Q5," indicating that the diesel-range hydrocarbons results were being influenced by the relative concentration of gasoline-range hydrocarbons in the sample. For this reason, the positive results for diesel-range hydrocarbons were qualified as estimated (J) in this sample, in order to signify a potential high bias.

Overall Assessment

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD percent recovery values, with the exceptions noted above. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values, with the exceptions noted above.

All data are acceptable for the intended use, with the following qualifications listed below in Table B-2.

TABLE B-2: SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Qualifier
041414:SVDP-1:13.5	GRPH	J
041414:SVDP-2:19	GRPH	J
041414:SVDP-2:GW	GRPH	J
SVMW-1(17-18)	DRPH ORPH	J J
SVMW-3(17-18)	Naphthalene	J

Sample ID	Analyte	Qualifier
Duplicate	Naphthalene	J
SVMW-2-091814	TOC	J
SVMW-Dup-091814	TOC	J
SVMW-3-091814	DRPH	J

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: SXI0130
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - Summit View
Revision: 1

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

Attn: JR Sugalski

Authorized for release by:
1/26/2015 2:19:27 PM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXI0130-01	SVMW-2-091814	Water	09/18/14 14:38	09/19/14 09:50
SXI0130-02	SVMW-3-091814	Water	09/18/14 13:56	09/19/14 09:50
SXI0130-03	SVMW-1-091814	Water	09/18/14 15:03	09/19/14 09:50
SXI0130-04	SVMW-Dup-091814	Water	09/18/14 08:00	09/19/14 09:50

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Fuels

Qualifier	Qualifier Description
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
Q5	Results in the diesel organics range are primarily due to overlap from a gasoline range product.

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
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-2-091814
Date Collected: 09/18/14 14:38
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-2-091814
Date Collected: 09/18/14 14:38
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*
1,2-dichloroethane-d4	*94.9*		*70 - 140*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*
Toluene-d8	*102*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 13:57*	*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		100		ug/L		09/23/14 07:49	09/24/14 13:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.0501**	**J**	0.0856	0.0190	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
2-Methylnaphthalene	ND		0.0856	0.0200	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
1-Methylnaphthalene	ND		0.0856	0.0171	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Acenaphthylene	ND		0.0856	0.0124	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Acenaphthene	ND		0.0856	0.0152	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Fluorene	ND		0.0856	0.0143	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Phenanthrene	ND		0.0856	0.0343	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Anthracene	ND		0.0856	0.0124	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Fluoranthene	ND		0.0856	0.0305	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Pyrene	ND		0.0856	0.00856	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (a) anthracene	ND		0.0856	0.00952	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Chrysene	ND		0.0856	0.0105	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (b) fluoranthene	ND		0.0856	0.0105	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (k) fluoranthene	ND		0.0856	0.0143	ug/L		09/23/14 08:20	09/24/14 21:39	1.00

Client Sample ID: SVMW-2-091814

Lab Sample ID: SXI0130-01

Date Collected: 09/18/14 14:38

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (a) pyrene	ND		0.0856	0.0162	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0856	0.0209	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Dibenzo (a,h) anthracene	ND		0.0856	0.0124	ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (ghi) perylene	ND		0.0856	0.0200	ug/L		09/23/14 08:20	09/24/14 21:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79.4*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 21:39*	*1.00*
2-FBP	*75.8*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 21:39*	*1.00*
p-Terphenyl-d14	*90.4*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 21:39*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.239		mg/L		09/24/14 08:30	09/24/14 14:30	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.399		mg/L		09/24/14 08:30	09/24/14 14:30	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91.1*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:30*	*1.00*
n-Triacontane-d62	*101*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:30*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**6.16**		0.200		mg/L		09/19/14 11:00	09/19/14 13:51	1.00
Sulfate	**32.0**		0.500		mg/L		09/19/14 11:00	09/19/14 13:51	1.00

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.39**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: SVMW-3-091814

Lab Sample ID: SXI0130-02

Date Collected: 09/18/14 13:56

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Dichlorofluoromethane	**0.270**		0.200		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Acetone	**246**		25.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-3-091814
Date Collected: 09/18/14 13:56
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
2-Butanone	**55.1**		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Hexane	**80.0**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Benzene	**27.6**		0.200		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Toluene	**422**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Ethylbenzene	**436**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
m,p-Xylene	**2000**		100		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
o-Xylene	**794**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Isopropylbenzene	**33.6**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
n-Propylbenzene	**82.0**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,3,5-Trimethylbenzene	**140**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2,4-Trimethylbenzene	**660**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
sec-Butylbenzene	**545**		50.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
p-Isopropyltoluene	**11.2**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Client Sample ID: SVMW-3-091814
Date Collected: 09/18/14 13:56
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Naphthalene	**236**		100		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.1*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*
1,2-dichloroethane-d4	*95.5*		*70 - 140*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*
Toluene-d8	*101*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**12700**		5000		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**178**		4.27	0.949	ug/L		09/23/14 08:20	09/25/14 11:46	50.0
2-Methylnaphthalene	**48.4**		4.27	0.997	ug/L		09/23/14 08:20	09/25/14 11:46	50.0
1-Methylnaphthalene	**29.3**		4.27	0.854	ug/L		09/23/14 08:20	09/25/14 11:46	50.0
Acenaphthylene	**0.0411**	**J**	0.0854	0.0123	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Acenaphthene	**0.0730**	**J**	0.0854	0.0152	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Fluorene	**0.0657**	**J**	0.0854	0.0142	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Phenanthrene	**0.0749**	**J**	0.0854	0.0342	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Anthracene	ND		0.0854	0.0123	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Fluoranthene	ND		0.0854	0.0304	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Pyrene	ND		0.0854	0.00854	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (a) anthracene	ND		0.0854	0.00949	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Chrysene	ND		0.0854	0.0104	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (b) fluoranthene	ND		0.0854	0.0104	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (k) fluoranthene	ND		0.0854	0.0142	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (a) pyrene	ND		0.0854	0.0161	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0854	0.0209	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Dibenzo (a,h) anthracene	ND		0.0854	0.0123	ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (ghi) perylene	ND		0.0854	0.0199	ug/L		09/23/14 08:20	09/24/14 22:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*76.3*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 22:04*	*1.00*
2-FBP	*71.5*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 22:04*	*1.00*
p-Terphenyl-d14	*94.3*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 22:04*	*1.00*

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	**0.968**	**Q5**	0.231		mg/L		09/24/14 08:30	10/03/14 12:57	1.00
Heavy Oil Range Hydrocarbons	ND		0.385		mg/L		09/24/14 08:30	10/03/14 12:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77.0*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:57*	*1.00*
n-Triacontane-d62	*90.0*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:57*	*1.00*

Client Sample ID: SVMW-3-091814

Lab Sample ID: SXI0130-02

Date Collected: 09/18/14 13:56

Matrix: Water

Date Received: 09/19/14 09:50

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	0.815	Q5	0.231		mg/L		09/24/14 08:30	09/24/14 14:54	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.385		mg/L		09/24/14 08:30	09/24/14 14:54	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80.6*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:54*	*1.00*
n-Triacontane-d62	*102*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:54*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	2.45		0.200		mg/L		09/19/14 11:00	09/19/14 14:05	1.00
Sulfate	15.4		0.500		mg/L		09/19/14 11:00	09/19/14 14:05	1.00

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	3.45		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-1-091814
Date Collected: 09/18/14 15:03
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-03
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*
1,2-dichloroethane-d4	*96.5*		*70 - 140*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*
Toluene-d8	*98.7*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 22:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.234	0.0520	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
2-Methylnaphthalene	ND		0.234	0.0546	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
1-Methylnaphthalene	ND		0.234	0.0468	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Acenaphthylene	ND		0.234	0.0338	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Acenaphthene	ND		0.234	0.0416	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Fluorene	ND		0.234	0.0390	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Phenanthrene	ND		0.234	0.0936	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Anthracene	ND		0.234	0.0338	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Fluoranthene	ND		0.234	0.0832	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Pyrene	ND		0.234	0.0234	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (a) anthracene	ND		0.234	0.0260	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Chrysene	ND		0.234	0.0286	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (b) fluoranthene	ND		0.234	0.0286	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (k) fluoranthene	ND		0.234	0.0390	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (a) pyrene	ND		0.234	0.0442	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Indeno (1,2,3-cd) pyrene	ND		0.234	0.0572	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Dibenzo (a,h) anthracene	ND		0.234	0.0338	ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (ghi) perylene	ND		0.234	0.0546	ug/L		09/23/14 08:20	09/24/14 22:29	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91.4*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 22:29*	*1.00*
2-FBP	*88.7*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 22:29*	*1.00*
p-Terphenyl-d14	*92.5*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 22:29*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**3.43**		0.200		mg/L		09/19/14 11:00	09/19/14 14:20	1.00
Sulfate	**28.6**		0.500		mg/L		09/19/14 11:00	09/19/14 14:20	1.00

Client Sample ID: SVMW-Dup-091814

Lab Sample ID: SXI0130-04

Date Collected: 09/18/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-Dup-091814
Date Collected: 09/18/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-Dup-091814
Date Collected: 09/18/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*
1,2-dichloroethane-d4	*89.4*		*70 - 140*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*
Toluene-d8	*104*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 15:05*	*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		100		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*104*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.0762**	**J**	0.0863	0.0192	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
2-Methylnaphthalene	ND		0.0863	0.0201	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
1-Methylnaphthalene	**0.0508**	**J**	0.0863	0.0173	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Acenaphthylene	ND		0.0863	0.0125	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Acenaphthene	ND		0.0863	0.0153	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Fluorene	ND		0.0863	0.0144	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Phenanthrene	ND		0.0863	0.0345	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Anthracene	ND		0.0863	0.0125	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Fluoranthene	ND		0.0863	0.0307	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Pyrene	ND		0.0863	0.00863	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (a) anthracene	ND		0.0863	0.00958	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Chrysene	ND		0.0863	0.0105	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (b) fluoranthene	ND		0.0863	0.0105	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (k) fluoranthene	ND		0.0863	0.0144	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (a) pyrene	ND		0.0863	0.0163	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0863	0.0211	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Dibenzo (a,h) anthracene	ND		0.0863	0.0125	ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (ghi) perylene	ND		0.0863	0.0201	ug/L		09/23/14 08:20	09/24/14 23:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*96.5*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 23:32*	*1.00*
2-FBP	*90.8*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 23:32*	*1.00*
p-Terphenyl-d14	*96.2*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 23:32*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-Dup-091814
Date Collected: 09/18/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-04
Matrix: Water

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.243		mg/L		09/24/14 08:30	09/24/14 15:18	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.404		mg/L		09/24/14 08:30	09/24/14 15:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95.0*		*50 - 150*	*09/24/14 08:30*	*09/24/14 15:18*	*1.00*
n-Triacontane-d62	*105*		*50 - 150*	*09/24/14 08:30*	*09/24/14 15:18*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**6.18**		0.200		mg/L		09/19/14 11:00	09/19/14 14:34	1.00
Sulfate	**32.0**		0.500		mg/L		09/19/14 11:00	09/19/14 14:34	1.00

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.34**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14I0134-BLK1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0134-BLK1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*
1,2-dichloroethane-d4	*91.0*		*70 - 140*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*
Toluene-d8	*105*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*

Lab Sample ID: 14I0134-BS1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	11.0		ug/L		110	60 - 140
Chloromethane	10.0	10.2		ug/L		102	60 - 140
Vinyl chloride	10.0	10.4		ug/L		104	60 - 140
Bromomethane	10.0	10.9		ug/L		109	60 - 140
Chloroethane	10.0	10.2		ug/L		102	60 - 140
Trichlorofluoromethane	10.0	9.91		ug/L		99.1	60 - 140
1,1-Dichloroethene	10.0	9.47		ug/L		94.7	78.1 - 155
Dichlorofluoromethane	10.0	9.75		ug/L		97.5	60 - 140
Carbon disulfide	10.0	9.27		ug/L		92.7	60 - 140
Methylene chloride	10.0	11.2		ug/L		112	60 - 140
Acetone	50.0	57.8		ug/L		116	60 - 140
trans-1,2-Dichloroethene	10.0	9.25		ug/L		92.5	60 - 140
Methyl tert-butyl ether	10.0	9.70		ug/L		97.0	80.1 - 128
1,1,2-Trichlorotrifluoroethane	10.0	10.1		ug/L		101	60 - 140
1,1-Dichloroethane	10.0	10.1		ug/L		101	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0134-BS1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	60 - 140
2,2-Dichloropropane	10.0	9.88		ug/L		98.8	60 - 140
Bromochloromethane	10.0	10.2		ug/L		102	60 - 140
Chloroform	10.0	9.55		ug/L		95.5	60 - 140
Carbon tetrachloride	10.0	9.96		ug/L		99.6	60 - 140
1,1,1-Trichloroethane	10.0	9.54		ug/L		95.4	60 - 140
2-Butanone	50.0	50.3		ug/L		101	60 - 140
Hexane	10.0	9.04		ug/L		90.4	60 - 140
1,1-Dichloropropene	10.0	9.95		ug/L		99.5	60 - 140
Benzene	10.0	9.38		ug/L		93.8	80 - 122
tert-Butanol	100	79.8		ug/L		79.8	60 - 140
1,2-Dichloroethane (EDC)	10.0	10.1		ug/L		101	63.9 - 144
Trichloroethene	10.0	10.1		ug/L		101	74.8 - 123
Dibromomethane	10.0	9.80		ug/L		98.0	60 - 140
1,2-Dichloropropane	10.0	10.2		ug/L		102	60 - 140
Bromodichloromethane	10.0	8.94		ug/L		89.4	60 - 140
cis-1,3-Dichloropropene	10.0	9.51		ug/L		95.1	60 - 140
Toluene	10.0	9.53		ug/L		95.3	80 - 123
4-Methyl-2-pentanone	50.0	47.0		ug/L		94.0	60 - 140
trans-1,3-Dichloropropene	10.0	9.55		ug/L		95.5	60 - 140
Tetrachloroethene	10.0	10.4		ug/L		104	60 - 140
1,1,2-Trichloroethane	10.0	9.96		ug/L		99.6	60 - 140
Dibromochloromethane	10.0	9.62		ug/L		96.2	60 - 140
1,3-Dichloropropane	10.0	9.82		ug/L		98.2	60 - 140
1,2-Dibromoethane	10.0	10.2		ug/L		102	70 - 130
2-Hexanone	50.0	49.8		ug/L		99.6	60 - 140
Ethylbenzene	10.0	9.43		ug/L		94.3	80 - 120
Chlorobenzene	10.0	9.63		ug/L		96.3	79.2 - 125
1,1,1,2-Tetrachloroethane	10.0	9.52		ug/L		95.2	60 - 140
m,p-Xylene	10.0	9.50		ug/L		95.0	80 - 120
o-Xylene	10.0	9.48		ug/L		94.8	80 - 120
Styrene	10.0	9.95		ug/L		99.5	60 - 140
Bromoform	10.0	9.38		ug/L		93.8	60 - 140
Isopropylbenzene	10.0	9.16		ug/L		91.6	60 - 140
n-Propylbenzene	10.0	9.27		ug/L		92.7	60 - 140
1,1,2,2-Tetrachloroethane	10.0	9.86		ug/L		98.6	60 - 140
Bromobenzene	10.0	10.3		ug/L		103	60 - 140
1,3,5-Trimethylbenzene	10.0	9.33		ug/L		93.3	60 - 140
2-Chlorotoluene	10.0	9.69		ug/L		96.9	60 - 140
1,2,3-Trichloropropane	10.0	11.0		ug/L		110	60 - 140
4-Chlorotoluene	10.0	9.61		ug/L		96.1	60 - 140
tert-Butylbenzene	10.0	9.85		ug/L		98.5	60 - 140
1,2,4-Trimethylbenzene	10.0	9.55		ug/L		95.5	60 - 140
sec-Butylbenzene	10.0	9.38		ug/L		93.8	60 - 140
p-Isopropyltoluene	10.0	9.19		ug/L		91.9	60 - 140
1,3-Dichlorobenzene	10.0	9.61		ug/L		96.1	60 - 140
1,4-Dichlorobenzene	10.0	9.55		ug/L		95.5	60 - 140
n-Butylbenzene	10.0	8.92		ug/L		89.2	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0134-BS1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	10.0	9.72		ug/L		97.2	60 - 140
1,2-Dibromo-3-chloropropane	10.0	9.98		ug/L		99.8	60 - 140
Hexachlorobutadiene	10.0	9.82		ug/L		98.2	60 - 140
1,2,4-Trichlorobenzene	10.0	9.68		ug/L		96.8	60 - 140
Naphthalene	10.0	9.65		ug/L		96.5	62.8 - 132
1,2,3-Trichlorobenzene	10.0	9.98		ug/L		99.8	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*98.9*		*71.2 - 143*
1,2-dichloroethane-d4	*95.4*		*70 - 140*
Toluene-d8	*101*		*74.1 - 135*
4-bromofluorobenzene	*101*		*68.7 - 141*

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

Lab Sample ID: 14I0134-BLK1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 09:49	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*

Lab Sample ID: 14I0134-BS2
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	1000	875		ug/L		87.5	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-bromofluorobenzene	*97.3*		*68.7 - 141*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14I0135-BLK1
Matrix: Water
Analysis Batch: 14I0135

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0135_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100	0.0200	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
2-Methylnaphthalene	ND		0.100	0.0210	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
1-Methylnaphthalene	ND		0.100	0.0180	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Acenaphthylene	ND		0.100	0.0130	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Acenaphthene	ND		0.100	0.0160	ug/L		09/23/14 08:20	09/24/14 18:22	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14I0135-BLK1
Matrix: Water
Analysis Batch: 14I0135

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0135_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.100	0.0150	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Phenanthrene	ND		0.100	0.0360	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Anthracene	ND		0.100	0.0130	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Fluoranthene	ND		0.100	0.0320	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Pyrene	ND		0.100	0.00900	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (a) anthracene	ND		0.100	0.0100	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Chrysene	ND		0.100	0.0110	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (b) fluoranthene	ND		0.100	0.0110	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (k) fluoranthene	ND		0.100	0.0150	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (a) pyrene	ND		0.100	0.0170	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Indeno (1,2,3-cd) pyrene	ND		0.100	0.0220	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Dibenzo (a,h) anthracene	ND		0.100	0.0130	ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (ghi) perylene	ND		0.100	0.0210	ug/L		09/23/14 08:20	09/24/14 18:22	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*102*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 18:22*	*1.00*
2-FBP	*97.3*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 18:22*	*1.00*
p-Terphenyl-d14	*94.5*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 18:22*	*1.00*

Lab Sample ID: 14I0135-BS1
Matrix: Water
Analysis Batch: 14I0135

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0135_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.60	1.38		ug/L		86.2	27.8 - 143
Fluorene	1.60	1.49		ug/L		92.9	59.2 - 120
Chrysene	1.60	1.36		ug/L		85.0	69.1 - 122
Indeno (1,2,3-cd) pyrene	1.60	1.46		ug/L		91.1	56.1 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*85.8*		*32.7 - 135*
2-FBP	*81.1*		*44.3 - 120*
p-Terphenyl-d14	*69.0*		*59.5 - 154*

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

Lab Sample ID: 14I0145-BLK2
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0145_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		09/24/14 08:30	10/03/14 12:10	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/L		09/24/14 08:30	10/03/14 12:10	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96.5*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:10*	*1.00*

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

Lab Sample ID: 14I0145-BLK2
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0145_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Triacontane-d62	103		50 - 150	09/24/14 08:30	10/03/14 12:10	1.00

Lab Sample ID: 14I0145-BS2
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0145_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	2.61		mg/L		81.6	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	93.2		50 - 150
n-Triacontane-d62	102		50 - 150

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14I0145-BLK1
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0145_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		09/24/14 08:30	09/24/14 13:22	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.400		mg/L		09/24/14 08:30	09/24/14 13:22	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	95.8		50 - 150	09/24/14 08:30	09/24/14 13:22	1.00
n-Triacontane-d62	107		50 - 150	09/24/14 08:30	09/24/14 13:22	1.00

Lab Sample ID: 14I0145-BS1
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0145_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	2.50		mg/L		78.0	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	97.6		50 - 150
n-Triacontane-d62	109		50 - 150

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 14I0126-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/L		09/19/14 10:47	09/19/14 15:03	1.00
Sulfate	ND		0.500		mg/L		09/19/14 10:47	09/19/14 15:03	1.00

Lab Sample ID: 14I0126-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	5.02		mg/L		100	90 - 110
Sulfate	12.5	12.4		mg/L		99.0	90 - 110

Lab Sample ID: 14I0126-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	0.740		5.00	6.09		mg/L		107	80 - 120
Sulfate	9.92		12.5	23.4		mg/L		108	80 - 120

Lab Sample ID: 14I0126-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	0.740		5.00	6.12		mg/L		108	80 - 120	0.360	12.1
Sulfate	9.92		12.5	23.5		mg/L		108	80 - 120	0.282	10

Lab Sample ID: 14I0126-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	0.740		0.750		mg/L		1.34	13.1
Sulfate	9.92		9.87		mg/L		0.505	15.7

Method: SM 5310C - TOC

Lab Sample ID: 193629-1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 193629-4
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 193629_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	9.803		mg/L		98	90 - 110		

Lab Sample ID: 193629-5
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 193629_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			10.0	9.874		mg/L		99	90 - 110	1	20

Lab Sample ID: 620471D
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 193629_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.39		20.0	21.62		mg/L		86	75 - 122	1	20

Lab Sample ID: 620471S
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 193629_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	4.39		20.0	21.94		mg/L		88	75 - 122		

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-2-091814

Lab Sample ID: SXI0130-01

Date Collected: 09/18/14 14:38

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 13:57	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 13:57	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.952	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 21:39	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.997	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 14:30	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 13:51	CBW	TAL SPK
Total	Analysis	SM 5310C		1	193629	09/25/14 12:00	JKF	TAL NSH
Total	Prep	NA			193629_P	09/25/14 12:00		TAL NSH

Client Sample ID: SVMW-3-091814

Lab Sample ID: SXI0130-02

Date Collected: 09/18/14 13:56

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		50.0	14I0134	09/24/14 14:20	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		50.0	14I0134	09/24/14 21:51	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		50.0	14I0134	09/24/14 14:20	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.949	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 22:04	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.949	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		50.0	14I0135	09/25/14 11:46	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.962	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 14:54	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.962	14I0145_P	09/24/14 08:30	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	10/03/14 12:57	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 14:05	CBW	TAL SPK

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 22:14	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 22:14	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.60	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 22:29	ZZZ	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 14:20	CBW	TAL SPK

Client Sample ID: SVMW-Dup-091814

Lab Sample ID: SXI0130-04

Date Collected: 09/18/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 15:05	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 15:05	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.958	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 23:32	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		1.01	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 15:18	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 14:34	CBW	TAL SPK

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (800) 765-0980

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-15
Washington	State Program	10	C569	01-06-16

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-15
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	10-31-15
Arizona	State Program	9	AZ0473	05-05-15
Arkansas DEQ	State Program	6	88-0737	04-25-15
California	NELAP	9	1168CA	10-31-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-15
Illinois	NELAP	5	200010	12-09-15
Iowa	State Program	7	131	04-01-16
Kansas	NELAP	7	E-10229	03-31-15
Kentucky (UST)	State Program	4	19	06-30-15
Kentucky (WW)	State Program	4	90038	12-31-15
Louisiana	NELAP	6	30613	06-30-15
Maryland	State Program	3	316	03-31-15
Massachusetts	State Program	1	M-TN032	06-30-15
Minnesota	NELAP	5	047-999-345	12-31-15
Mississippi	State Program	4	N/A	06-30-15
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-15
New Hampshire	NELAP	1	2963	10-09-15
New Jersey	NELAP	2	TN965	06-30-15
New York	NELAP	2	11342	03-31-15
North Carolina (WW/SW)	State Program	4	387	12-31-15
North Dakota	State Program	8	R-146	06-30-15
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-15
Oregon	NELAP	10	TN200001	04-29-15
Pennsylvania	NELAP	3	68-00585	06-30-15
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-15
South Carolina (DW)	State Program	4	84009 (002)	02-23-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-15
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-15
Virginia	NELAP	3	460152	06-14-15
Washington	State Program	10	C789	07-19-15
West Virginia DEP	State Program	3	219	02-28-15
Wisconsin	State Program	5	998020430	08-31-15
Wyoming (UST)	A2LA	8	453.07	12-31-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup		TAL SPK
EPA 300.0	Anions by EPA Method 300.0		TAL SPK
SM 5310C	TOC		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (800) 765-0980

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
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

1/26/2015

CHAIN OF CUSTODY REPORT

Work Order #: SXD130

CLIENT: GeoEngineers

INVOICE TO:

REPORT TO: JR Sugalski
ADDRESS: 523 E Second Ave
Spokane WA 99202
PHONE: 509-363-3125 FAX: 509-363-3126

P.O. NUMBER:

PROJECT NAME: Three Tiger oil - Sunset View
PROJECT NUMBER: 0501-101-00
SAMPLED BY: JWR

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [X] 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.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	NWTPH Gx	VOCs	NWTPH Dx	TOC	PAHs	Nitrate	Sulfate						MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	SVMW-2-091814	9/18/14 1438		X	X	X	X	X	X	X						W	7		
2	SVMW-3-091814	9/18/14 1356		X	X	X	X	X	X	X						W	7		
3	SVMW-1-091814	9/18/14 1503		X				X								W	3		
4	SVMW-DUP-091814	9/18/14 0800		X	X	X	X	X	X	X						W	7		
5																			
6																			
7																			
8																			
9																			
10																			

REQUESTED ANALYSES

RELEASED BY: [signature] DATE: 9/19/14
PRINT NAME: Justin Rice FIRM: GeoEng TIME: 0956

RECEIVED BY: [signature] DATE: 9/19/14
PRINT NAME: Cat Hopelton FIRM: TA TIME: 0950

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

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

ADDITIONAL REMARKS:

TEMP: 38

PAGE 1 OF 1

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXI0130	**Client:** GeoEngineers	**Project:** Tiger Oil Summit
Date/Time Received: 9-19-14	By: CS	

Samples Delivered By: [X] 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 [X] Real Ice [ ] Dry Ice [ ] None [ ] Other: _____

Temperature: 3.8 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

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

Log-in Phase Date/Time: 9/19/14 10:50 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	MA 9/22/14		
Appropriate sample containers were received for tests requested	X	X		missing NWTPH-Dx containers for SXI0130-01 + -04 PA
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			Nitrate
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X	MA 9/22/14		
Were there Non-conformance issues at login	X	X		See comments above
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

Form No. SP-FORM-SPL-002 12 December 2012

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: SXI0130
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - Summit View
Revision: 1

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

Attn: JR Sugalski

Authorized for release by:
10/14/2014 9:19:42 AM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXI0130-01	SVMW-2-091814	Water	09/18/14 14:38	09/19/14 09:50
SXI0130-02	SVMW-3-091814	Water	09/18/14 13:56	09/19/14 09:50
SXI0130-03	SVMW-1-091814	Water	09/18/14 15:03	09/19/14 09:50
SXI0130-04	SVMW-Dup-091814	Water	09/18/14 08:00	09/19/14 09:50

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Qualifiers

Fuels

Qualifier	Qualifier Description
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
Q5	Results in the diesel organics range are primarily due to overlap from a gasoline range product.

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
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-2-091814
Date Collected: 09/18/14 14:38
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-2-091814
Date Collected: 09/18/14 14:38
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 13:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*
1,2-dichloroethane-d4	*94.9*		*70 - 140*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*
Toluene-d8	*102*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 13:57*	*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		100		ug/L		09/23/14 07:49	09/24/14 13:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 13:57*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
2-Methylnaphthalene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
1-Methylnaphthalene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Acenaphthylene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Acenaphthene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Fluorene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Phenanthrene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Anthracene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Fluoranthene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Pyrene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (a) anthracene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Chrysene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (b) fluoranthene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (k) fluoranthene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00

Client Sample ID: SVMW-2-091814

Lab Sample ID: SXI0130-01

Date Collected: 09/18/14 14:38

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (a) pyrene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Dibenzo (a,h) anthracene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00
Benzo (ghi) perylene	ND		0.0856		ug/L		09/23/14 08:20	09/24/14 21:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79.4*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 21:39*	*1.00*
2-FBP	*75.8*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 21:39*	*1.00*
p-Terphenyl-d14	*90.4*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 21:39*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.239		mg/L		09/24/14 08:30	09/24/14 14:30	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.399		mg/L		09/24/14 08:30	09/24/14 14:30	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91.1*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:30*	*1.00*
n-Triacontane-d62	*101*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:30*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**6.16**		0.200		mg/L		09/19/14 11:00	09/19/14 13:51	1.00
Sulfate	**32.0**		0.500		mg/L		09/19/14 11:00	09/19/14 13:51	1.00

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.39**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: SVMW-3-091814

Lab Sample ID: SXI0130-02

Date Collected: 09/18/14 13:56

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Dichlorofluoromethane	**0.270**		0.200		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Acetone	**246**		25.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-3-091814
Date Collected: 09/18/14 13:56
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
2-Butanone	**55.1**		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Hexane	**80.0**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Benzene	**27.6**		0.200		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Toluene	**422**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Ethylbenzene	**436**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
m,p-Xylene	**2000**		100		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
o-Xylene	**794**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Isopropylbenzene	**33.6**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
n-Propylbenzene	**82.0**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,3,5-Trimethylbenzene	**140**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2,4-Trimethylbenzene	**660**		50.0		ug/L		09/23/14 07:49	09/24/14 21:51	50.0
sec-Butylbenzene	**545**		50.0		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
p-Isopropyltoluene	**11.2**		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Client Sample ID: SVMW-3-091814
Date Collected: 09/18/14 13:56
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
Naphthalene	**236**		100		ug/L		09/23/14 07:49	09/24/14 14:20	50.0
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.1*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*
1,2-dichloroethane-d4	*95.5*		*70 - 140*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*
Toluene-d8	*101*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**12700**		5000		ug/L		09/23/14 07:49	09/24/14 14:20	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 14:20*	*50.0*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**178**		4.27		ug/L		09/23/14 08:20	09/25/14 11:46	50.0
2-Methylnaphthalene	**48.4**		4.27		ug/L		09/23/14 08:20	09/25/14 11:46	50.0
1-Methylnaphthalene	**29.3**		4.27		ug/L		09/23/14 08:20	09/25/14 11:46	50.0
Acenaphthylene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Acenaphthene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Fluorene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Phenanthrene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Anthracene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Fluoranthene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Pyrene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (a) anthracene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Chrysene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (b) fluoranthene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (k) fluoranthene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (a) pyrene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Dibenzo (a,h) anthracene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00
Benzo (ghi) perylene	ND		0.0854		ug/L		09/23/14 08:20	09/24/14 22:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*76.3*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 22:04*	*1.00*
2-FBP	*71.5*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 22:04*	*1.00*
p-Terphenyl-d14	*94.3*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 22:04*	*1.00*

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	**0.968**	**Q5**	0.231		mg/L		09/24/14 08:30	10/03/14 12:57	1.00
Heavy Oil Range Hydrocarbons	ND		0.385		mg/L		09/24/14 08:30	10/03/14 12:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77.0*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:57*	*1.00*
n-Triacontane-d62	*90.0*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:57*	*1.00*

Client Sample ID: SVMW-3-091814

Lab Sample ID: SXI0130-02

Date Collected: 09/18/14 13:56

Matrix: Water

Date Received: 09/19/14 09:50

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	0.815	Q5	0.231		mg/L		09/24/14 08:30	09/24/14 14:54	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.385		mg/L		09/24/14 08:30	09/24/14 14:54	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80.6*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:54*	*1.00*
n-Triacontane-d62	*102*		*50 - 150*	*09/24/14 08:30*	*09/24/14 14:54*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	2.45		0.200		mg/L		09/19/14 11:00	09/19/14 14:05	1.00
Sulfate	15.4		0.500		mg/L		09/19/14 11:00	09/19/14 14:05	1.00

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	3.45		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-1-091814
Date Collected: 09/18/14 15:03
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-03
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 22:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*
1,2-dichloroethane-d4	*96.5*		*70 - 140*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*
Toluene-d8	*98.7*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 22:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 22:14*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
2-Methylnaphthalene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
1-Methylnaphthalene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Acenaphthylene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Acenaphthene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Fluorene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Phenanthrene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Anthracene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Fluoranthene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Pyrene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (a) anthracene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Chrysene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (b) fluoranthene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (k) fluoranthene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (a) pyrene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Indeno (1,2,3-cd) pyrene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Dibenzo (a,h) anthracene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00
Benzo (ghi) perylene	ND		0.234		ug/L		09/23/14 08:20	09/24/14 22:29	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91.4*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 22:29*	*1.00*
2-FBP	*88.7*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 22:29*	*1.00*
p-Terphenyl-d14	*92.5*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 22:29*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**3.43**		0.200		mg/L		09/19/14 11:00	09/19/14 14:20	1.00
Sulfate	**28.6**		0.500		mg/L		09/19/14 11:00	09/19/14 14:20	1.00

Client Sample ID: SVMW-Dup-091814

Lab Sample ID: SXI0130-04

Date Collected: 09/18/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-Dup-091814
Date Collected: 09/18/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-Dup-091814
Date Collected: 09/18/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*
1,2-dichloroethane-d4	*89.4*		*70 - 140*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*
Toluene-d8	*104*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 15:05*	*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		100		ug/L		09/23/14 07:49	09/24/14 15:05	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*104*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 15:05*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
2-Methylnaphthalene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
1-Methylnaphthalene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Acenaphthylene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Acenaphthene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Fluorene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Phenanthrene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Anthracene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Fluoranthene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Pyrene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (a) anthracene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Chrysene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (b) fluoranthene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (k) fluoranthene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (a) pyrene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Dibenzo (a,h) anthracene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00
Benzo (ghi) perylene	ND		0.0863		ug/L		09/23/14 08:20	09/24/14 23:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*96.5*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 23:32*	*1.00*
2-FBP	*90.8*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 23:32*	*1.00*
p-Terphenyl-d14	*96.2*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 23:32*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-Dup-091814
Date Collected: 09/18/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0130-04
Matrix: Water

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.243		mg/L		09/24/14 08:30	09/24/14 15:18	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.404		mg/L		09/24/14 08:30	09/24/14 15:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95.0*		*50 - 150*	*09/24/14 08:30*	*09/24/14 15:18*	*1.00*
n-Triacontane-d62	*105*		*50 - 150*	*09/24/14 08:30*	*09/24/14 15:18*	*1.00*

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**6.18**		0.200		mg/L		09/19/14 11:00	09/19/14 14:34	1.00
Sulfate	**32.0**		0.500		mg/L		09/19/14 11:00	09/19/14 14:34	1.00

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.34**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14I0134-BLK1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0134-BLK1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 09:49	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*
1,2-dichloroethane-d4	*91.0*		*70 - 140*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*
Toluene-d8	*105*		*74.1 - 135*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*

Lab Sample ID: 14I0134-BS1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	11.0		ug/L		110	60 - 140
Chloromethane	10.0	10.2		ug/L		102	60 - 140
Vinyl chloride	10.0	10.4		ug/L		104	60 - 140
Bromomethane	10.0	10.9		ug/L		109	60 - 140
Chloroethane	10.0	10.2		ug/L		102	60 - 140
Trichlorofluoromethane	10.0	9.91		ug/L		99.1	60 - 140
1,1-Dichloroethene	10.0	9.47		ug/L		94.7	78.1 - 155
Dichlorofluoromethane	10.0	9.75		ug/L		97.5	60 - 140
Carbon disulfide	10.0	9.27		ug/L		92.7	60 - 140
Methylene chloride	10.0	11.2		ug/L		112	60 - 140
Acetone	50.0	57.8		ug/L		116	60 - 140
trans-1,2-Dichloroethene	10.0	9.25		ug/L		92.5	60 - 140
Methyl tert-butyl ether	10.0	9.70		ug/L		97.0	80.1 - 128
1,1,2-Trichlorotrifluoroethane	10.0	10.1		ug/L		101	60 - 140
1,1-Dichloroethane	10.0	10.1		ug/L		101	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0134-BS1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	60 - 140
2,2-Dichloropropane	10.0	9.88		ug/L		98.8	60 - 140
Bromochloromethane	10.0	10.2		ug/L		102	60 - 140
Chloroform	10.0	9.55		ug/L		95.5	60 - 140
Carbon tetrachloride	10.0	9.96		ug/L		99.6	60 - 140
1,1,1-Trichloroethane	10.0	9.54		ug/L		95.4	60 - 140
2-Butanone	50.0	50.3		ug/L		101	60 - 140
Hexane	10.0	9.04		ug/L		90.4	60 - 140
1,1-Dichloropropene	10.0	9.95		ug/L		99.5	60 - 140
Benzene	10.0	9.38		ug/L		93.8	80 - 122
tert-Butanol	100	79.8		ug/L		79.8	60 - 140
1,2-Dichloroethane (EDC)	10.0	10.1		ug/L		101	63.9 - 144
Trichloroethene	10.0	10.1		ug/L		101	74.8 - 123
Dibromomethane	10.0	9.80		ug/L		98.0	60 - 140
1,2-Dichloropropane	10.0	10.2		ug/L		102	60 - 140
Bromodichloromethane	10.0	8.94		ug/L		89.4	60 - 140
cis-1,3-Dichloropropene	10.0	9.51		ug/L		95.1	60 - 140
Toluene	10.0	9.53		ug/L		95.3	80 - 123
4-Methyl-2-pentanone	50.0	47.0		ug/L		94.0	60 - 140
trans-1,3-Dichloropropene	10.0	9.55		ug/L		95.5	60 - 140
Tetrachloroethene	10.0	10.4		ug/L		104	60 - 140
1,1,2-Trichloroethane	10.0	9.96		ug/L		99.6	60 - 140
Dibromochloromethane	10.0	9.62		ug/L		96.2	60 - 140
1,3-Dichloropropane	10.0	9.82		ug/L		98.2	60 - 140
1,2-Dibromoethane	10.0	10.2		ug/L		102	70 - 130
2-Hexanone	50.0	49.8		ug/L		99.6	60 - 140
Ethylbenzene	10.0	9.43		ug/L		94.3	80 - 120
Chlorobenzene	10.0	9.63		ug/L		96.3	79.2 - 125
1,1,1,2-Tetrachloroethane	10.0	9.52		ug/L		95.2	60 - 140
m,p-Xylene	10.0	9.50		ug/L		95.0	80 - 120
o-Xylene	10.0	9.48		ug/L		94.8	80 - 120
Styrene	10.0	9.95		ug/L		99.5	60 - 140
Bromoform	10.0	9.38		ug/L		93.8	60 - 140
Isopropylbenzene	10.0	9.16		ug/L		91.6	60 - 140
n-Propylbenzene	10.0	9.27		ug/L		92.7	60 - 140
1,1,2,2-Tetrachloroethane	10.0	9.86		ug/L		98.6	60 - 140
Bromobenzene	10.0	10.3		ug/L		103	60 - 140
1,3,5-Trimethylbenzene	10.0	9.33		ug/L		93.3	60 - 140
2-Chlorotoluene	10.0	9.69		ug/L		96.9	60 - 140
1,2,3-Trichloropropane	10.0	11.0		ug/L		110	60 - 140
4-Chlorotoluene	10.0	9.61		ug/L		96.1	60 - 140
tert-Butylbenzene	10.0	9.85		ug/L		98.5	60 - 140
1,2,4-Trimethylbenzene	10.0	9.55		ug/L		95.5	60 - 140
sec-Butylbenzene	10.0	9.38		ug/L		93.8	60 - 140
p-Isopropyltoluene	10.0	9.19		ug/L		91.9	60 - 140
1,3-Dichlorobenzene	10.0	9.61		ug/L		96.1	60 - 140
1,4-Dichlorobenzene	10.0	9.55		ug/L		95.5	60 - 140
n-Butylbenzene	10.0	8.92		ug/L		89.2	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0134-BS1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	10.0	9.72		ug/L		97.2	60 - 140
1,2-Dibromo-3-chloropropane	10.0	9.98		ug/L		99.8	60 - 140
Hexachlorobutadiene	10.0	9.82		ug/L		98.2	60 - 140
1,2,4-Trichlorobenzene	10.0	9.68		ug/L		96.8	60 - 140
Naphthalene	10.0	9.65		ug/L		96.5	62.8 - 132
1,2,3-Trichlorobenzene	10.0	9.98		ug/L		99.8	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*98.9*		*71.2 - 143*
1,2-dichloroethane-d4	*95.4*		*70 - 140*
Toluene-d8	*101*		*74.1 - 135*
4-bromofluorobenzene	*101*		*68.7 - 141*

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

Lab Sample ID: 14I0134-BLK1
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 09:49	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*103*		*68.7 - 141*	*09/23/14 07:49*	*09/24/14 09:49*	*1.00*

Lab Sample ID: 14I0134-BS2
Matrix: Water
Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0134_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	1000	875		ug/L		87.5	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-bromofluorobenzene	*97.3*		*68.7 - 141*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14I0135-BLK1
Matrix: Water
Analysis Batch: 14I0135

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0135_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
2-Methylnaphthalene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
1-Methylnaphthalene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Acenaphthylene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Acenaphthene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14I0135-BLK1
Matrix: Water
Analysis Batch: 14I0135

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0135_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Phenanthrene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Anthracene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Fluoranthene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Pyrene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (a) anthracene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Chrysene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (b) fluoranthene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (k) fluoranthene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (a) pyrene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Indeno (1,2,3-cd) pyrene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Dibenzo (a,h) anthracene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00
Benzo (ghi) perylene	ND		0.100		ug/L		09/23/14 08:20	09/24/14 18:22	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*102*		*32.7 - 135*	*09/23/14 08:20*	*09/24/14 18:22*	*1.00*
2-FBP	*97.3*		*44.3 - 120*	*09/23/14 08:20*	*09/24/14 18:22*	*1.00*
p-Terphenyl-d14	*94.5*		*59.5 - 154*	*09/23/14 08:20*	*09/24/14 18:22*	*1.00*

Lab Sample ID: 14I0135-BS1
Matrix: Water
Analysis Batch: 14I0135

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0135_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.60	1.38		ug/L		86.2	27.8 - 143
Fluorene	1.60	1.49		ug/L		92.9	59.2 - 120
Chrysene	1.60	1.36		ug/L		85.0	69.1 - 122
Indeno (1,2,3-cd) pyrene	1.60	1.46		ug/L		91.1	56.1 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*85.8*		*32.7 - 135*
2-FBP	*81.1*		*44.3 - 120*
p-Terphenyl-d14	*69.0*		*59.5 - 154*

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

Lab Sample ID: 14I0145-BLK2
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0145_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		09/24/14 08:30	10/03/14 12:10	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/L		09/24/14 08:30	10/03/14 12:10	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96.5*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:10*	*1.00*

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

Lab Sample ID: 14I0145-BLK2
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0145_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Triacontane-d62	*103*		*50 - 150*	*09/24/14 08:30*	*10/03/14 12:10*	*1.00*

Lab Sample ID: 14I0145-BS2
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0145_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	2.61		mg/L		81.6	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	*93.2*		*50 - 150*
n-Triacontane-d62	*102*		*50 - 150*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14I0145-BLK1
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0145_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		09/24/14 08:30	09/24/14 13:22	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.400		mg/L		09/24/14 08:30	09/24/14 13:22	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*95.8*		*50 - 150*	*09/24/14 08:30*	*09/24/14 13:22*	*1.00*
n-Triacontane-d62	*107*		*50 - 150*	*09/24/14 08:30*	*09/24/14 13:22*	*1.00*

Lab Sample ID: 14I0145-BS1
Matrix: Water
Analysis Batch: 14I0145

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0145_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	2.50		mg/L		78.0	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	*97.6*		*50 - 150*
n-Triacontane-d62	*109*		*50 - 150*

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 14I0126-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/L		09/19/14 10:47	09/19/14 15:03	1.00
Sulfate	ND		0.500		mg/L		09/19/14 10:47	09/19/14 15:03	1.00

Lab Sample ID: 14I0126-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	5.02		mg/L		100	90 - 110
Sulfate	12.5	12.4		mg/L		99.0	90 - 110

Lab Sample ID: 14I0126-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	0.740		5.00	6.09		mg/L		107	80 - 120
Sulfate	9.92		12.5	23.4		mg/L		108	80 - 120

Lab Sample ID: 14I0126-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	0.740		5.00	6.12		mg/L		108	80 - 120	0.360	12.1
Sulfate	9.92		12.5	23.5		mg/L		108	80 - 120	0.282	10

Lab Sample ID: 14I0126-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0126 — **Prep Batch: 14I0126_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	0.740		0.750		mg/L		1.34	13.1
Sulfate	9.92		9.87		mg/L		0.505	15.7

Method: SM 5310C - TOC

Lab Sample ID: 193629-1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 193629-4
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 193629_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	9.803		mg/L		98	90 - 110		

Lab Sample ID: 193629-5
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 193629_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			10.0	9.874		mg/L		99	90 - 110	1	20

Lab Sample ID: 620471D
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 193629_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.39		20.0	21.62		mg/L		86	75 - 122	1	20

Lab Sample ID: 620471S
Matrix: Water
Analysis Batch: 193629

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 193629_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	4.39		20.0	21.94		mg/L		88	75 - 122		

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-2-091814

Lab Sample ID: SXI0130-01

Date Collected: 09/18/14 14:38

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 13:57	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 13:57	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.952	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 21:39	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.997	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 14:30	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 13:51	CBW	TAL SPK
Total	Analysis	SM 5310C		1	193629	09/25/14 12:00	JKF	TAL NSH
Total	Prep	NA			193629_P	09/25/14 12:00		TAL NSH

Client Sample ID: SVMW-3-091814

Lab Sample ID: SXI0130-02

Date Collected: 09/18/14 13:56

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		50.0	14I0134	09/24/14 14:20	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		50.0	14I0134	09/24/14 21:51	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		50.0	14I0134	09/24/14 14:20	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.949	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 22:04	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.949	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		50.0	14I0135	09/25/14 11:46	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.962	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 14:54	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.962	14I0145_P	09/24/14 08:30	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	10/03/14 12:57	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 14:05	CBW	TAL SPK

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 22:14	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Client Sample ID: SVMW-1-091814

Lab Sample ID: SXI0130-03

Date Collected: 09/18/14 15:03

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 22:14	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.60	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 22:29	ZZZ	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 14:20	CBW	TAL SPK

Client Sample ID: SVMW-Dup-091814

Lab Sample ID: SXI0130-04

Date Collected: 09/18/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 15:05	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 15:05	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.958	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 23:32	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		1.01	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 15:18	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14I0126_P	09/19/14 11:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0126	09/19/14 14:34	CBW	TAL SPK

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (800) 765-0980

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-15
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	10-31-15
Arizona	State Program	9	AZ0473	05-05-15
Arkansas DEQ	State Program	6	88-0737	04-25-15
California	NELAP	9	1168CA	10-31-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-15
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	04-01-16
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-15
Kentucky (WW)	State Program	4	90038	12-31-14
Louisiana	NELAP	6	30613	06-30-15
Maryland	State Program	3	316	03-31-15
Massachusetts	State Program	1	M-TN032	06-30-15
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-15
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-15
New Hampshire	NELAP	1	2963	10-09-15
New Jersey	NELAP	2	TN965	06-30-15
New York	NELAP	2	11342	03-31-15
North Carolina (WW/SW)	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-15
Oregon	NELAP	10	TN200001	04-29-15
Pennsylvania	NELAP	3	68-00585	06-30-15
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-15
South Carolina (DW)	State Program	4	84009 (002)	02-23-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-15
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-15
Virginia	NELAP	3	460152	06-14-15
Washington	State Program	10	C789	07-19-15
West Virginia DEP	State Program	3	219	02-28-15
Wisconsin	State Program	5	998020430	08-31-15
Wyoming (UST)	A2LA	8	453.07	12-31-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0130

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup		TAL SPK
EPA 300.0	Anions by EPA Method 300.0		TAL SPK
SM 5310C	TOC		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (800) 765-0980

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
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

10/14/2014

CHAIN OF CUSTODY REPORT

Work Order #: SXD130

CLIENT: GeoEngineers

REPORT TO: JR Sugalski

ADDRESS: 523 E Second Ave
Spokane WA 99202

PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Three Tiger Oil - Somerset View

PROJECT NUMBER: 0501-101-00

SAMPLED BY: JWR

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [X] STD. [10] [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.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NWTPH Gx	VOCs	NWTPH Dx	TOC	PAHs	Nitrate	Sulfate	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	SVMW-2-091814	9/18/14 1438	X	X	X	X	X	X	X	W	7		
2	SVMW-3-091814	9/18/14 1356	X	X	X	X	X	X	X	W	7		
3	SVMW-1-091814	9/18/14 1503	X				X			W	3		
4	SVMW-DUP-091814	9/18/14 0800	X	X	X	X	X	X	X	W	7		
5													
6													
7													
8													
9													
10													

REQUESTED ANALYSES

PRESERVATIVE

RELEASED BY: JT
PRINT NAME: Justin Tice
FIRM: GeoEng
DATE: 9/19/14
TIME: 0956

RECEIVED BY: Cat Hopelton
PRINT NAME:
FIRM: TA
DATE: 9/19/14
TIME: 0950

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

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

ADDITIONAL REMARKS:

TEMP: 38

PAGE 1 OF 1

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXI0130	**Client:** GeoEngineers	**Project:** Tiger Oil Summit
Date/Time Received: 9-19-14	By: CS	

Samples Delivered By: [X] 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 [X] Real Ice [ ] Dry Ice [ ] None [ ] Other: _____

Temperature: 3.8 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

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

Log-in Phase Date/Time: 9/19/14 10:50 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	9/22/14		
Appropriate sample containers were received for tests requested	X	X		missing NWTPH-Dx containers for SXI0130-01 + -04 RA
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			Nitrate
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X	9/22/14		
Were there Non-conformance issues at login	X	X		See comments above
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

Form No. SP-FORM-SPL-002 12 December 2012

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: SXH0013
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - Summit View

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

Attn: JR Sugalski

Authorized for release by:
8/19/2014 9:44:39 AM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXH0013-02	SVMW-1(17-18)	Soil	07/28/14 13:25	08/05/14 10:25
SXH0013-05	SVMW-2(7-8)	Soil	07/31/14 12:45	08/05/14 10:25
SXH0013-09	SVMW-3(17-18)	Soil	08/01/14 08:40	08/05/14 10:25
SXH0013-10	Duplicate	Soil	08/01/14 07:00	08/05/14 10:25

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

Fuels

Qualifier	Qualifier Description
R2	The RPD exceeded the acceptance limit.

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
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Client Sample ID: SVMW-1(17-18)

Date Collected: 07/28/14 13:25
Date Received: 08/05/14 10:25

Lab Sample ID: SXH0013-02

Matrix: Soil
Percent Solids: 81.7

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0348		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
Benzene	ND		0.0174		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
Toluene	ND		0.116		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
Ethylbenzene	ND		0.116		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
m,p-Xylene	ND		0.464		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
o-Xylene	ND		0.232		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
1,2-Dichloroethane (EDC)	ND		0.116		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00
Xylenes (total)	ND		0.696		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*80 - 120*	*08/06/14 07:41*	*08/06/14 12:13*	*1.00*
1,2-dichloroethane-d4	*103*		*74.7 - 120*	*08/06/14 07:41*	*08/06/14 12:13*	*1.00*
Toluene-d8	*101*		*78.5 - 125*	*08/06/14 07:41*	*08/06/14 12:13*	*1.00*
4-bromofluorobenzene	*98.9*		*69.8 - 140*	*08/06/14 07:41*	*08/06/14 12:13*	*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		5.80		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*90.7*		*41.5 - 162*	*08/06/14 07:41*	*08/06/14 12:13*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.05		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:47	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0215		mg/kg dry	☼	08/07/14 08:32	08/07/14 19:44	1.00
2-Methylnaphthalene	ND		0.0215		mg/kg dry	☼	08/07/14 08:32	08/07/14 19:44	1.00
1-Methylnaphthalene	ND		0.0215		mg/kg dry	☼	08/07/14 08:32	08/07/14 19:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91.4*		*36.3 - 152*	*08/07/14 08:32*	*08/07/14 19:44*	*1.00*
2-FBP	*79.6*		*30.2 - 135*	*08/07/14 08:32*	*08/07/14 19:44*	*1.00*
p-Terphenyl-d14	*80.8*		*65.1 - 134*	*08/07/14 08:32*	*08/07/14 19:44*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**11.7**		9.88		mg/kg dry	☼	08/06/14 08:12	08/08/14 12:01	1.00
Heavy Oil Range Hydrocarbons	**34.2**		24.7		mg/kg dry	☼	08/06/14 08:12	08/08/14 12:01	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94.1*		*50 - 150*	*08/06/14 08:12*	*08/08/14 12:01*	*1.00*
n-Triacontane-d62	*82.7*		*50 - 150*	*08/06/14 08:12*	*08/08/14 12:01*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.62**		1.51		mg/kg dry	☼	08/08/14 11:53	08/12/14 11:45	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Client Sample ID: SVMW-2(7-8)
Date Collected: 07/31/14 12:45
Date Received: 08/05/14 10:25

Lab Sample ID: SXH0013-05
Matrix: Soil
Percent Solids: 90

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0376		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
Benzene	ND		0.0188		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
Toluene	ND		0.125		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
Ethylbenzene	ND		0.125		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
m,p-Xylene	ND		0.502		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
o-Xylene	ND		0.251		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
1,2-Dichloroethane (EDC)	ND		0.125		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00
Xylenes (total)	ND		0.753		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.3*		*80 - 120*	*08/06/14 07:41*	*08/06/14 12:35*	*1.00*
1,2-dichloroethane-d4	*104*		*74.7 - 120*	*08/06/14 07:41*	*08/06/14 12:35*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/06/14 07:41*	*08/06/14 12:35*	*1.00*
4-bromofluorobenzene	*96.4*		*69.8 - 140*	*08/06/14 07:41*	*08/06/14 12:35*	*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		6.27		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:35	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*88.3*		*41.5 - 162*	*08/06/14 07:41*	*08/06/14 12:35*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.950		ug/kg dry	☼	08/07/14 13:48	08/11/14 14:50	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0208		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:07	1.00
2-Methylnaphthalene	ND		0.0208		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:07	1.00
1-Methylnaphthalene	ND		0.0208		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:07	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92.0*		*36.3 - 152*	*08/07/14 08:32*	*08/07/14 20:07*	*1.00*
2-FBP	*85.2*		*30.2 - 135*	*08/07/14 08:32*	*08/07/14 20:07*	*1.00*
p-Terphenyl-d14	*88.8*		*65.1 - 134*	*08/07/14 08:32*	*08/07/14 20:07*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.9		mg/kg dry	☼	08/06/14 08:12	08/08/14 12:26	1.00
Heavy Oil Range Hydrocarbons	ND		27.3		mg/kg dry	☼	08/06/14 08:12	08/08/14 12:26	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*08/06/14 08:12*	*08/08/14 12:26*	*1.00*
n-Triacontane-d62	*83.8*		*50 - 150*	*08/06/14 08:12*	*08/08/14 12:26*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.95**		1.18		mg/kg dry	☼	08/08/14 11:53	08/12/14 11:49	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Client Sample ID: SVMW-3(17-18)
Date Collected: 08/01/14 08:40
Date Received: 08/05/14 10:25

Lab Sample ID: SXH0013-09
Matrix: Soil
Percent Solids: 80.4

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0364		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:58	1.00
Benzene	**0.135**		0.0182		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:58	1.00
Toluene	**4.65**		0.121		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:58	1.00
Ethylbenzene	**12.0**		1.21		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:21	10.0
m,p-Xylene	**56.2**		4.86		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:21	10.0
o-Xylene	**18.7**		2.43		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:21	10.0
1,2-Dichloroethane (EDC)	ND		0.121		mg/kg dry	☼	08/06/14 07:41	08/06/14 12:58	1.00
Xylenes (total)	**74.9**		7.28		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:21	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*90.5*		*80 - 120*	*08/06/14 07:41*	*08/06/14 12:58*	*1.00*
1,2-dichloroethane-d4	*108*		*74.7 - 120*	*08/06/14 07:41*	*08/06/14 12:58*	*1.00*
Toluene-d8	*97.6*		*78.5 - 125*	*08/06/14 07:41*	*08/06/14 12:58*	*1.00*
4-bromofluorobenzene	*107*		*69.8 - 140*	*08/06/14 07:41*	*08/06/14 12:58*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**1070**		60.7		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:21	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*92.9*		*41.5 - 162*	*08/06/14 07:41*	*08/06/14 12:58*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.17		ug/kg dry	☼	08/07/14 13:48	08/11/14 16:02	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**1.68**		0.0216		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:29	1.00
2-Methylnaphthalene	**2.20**		0.0216		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:29	1.00
1-Methylnaphthalene	**1.14**		0.0216		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:29	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*95.2*		*36.3 - 152*	*08/07/14 08:32*	*08/07/14 20:29*	*1.00*
2-FBP	*73.2*		*30.2 - 135*	*08/07/14 08:32*	*08/07/14 20:29*	*1.00*
p-Terphenyl-d14	*86.8*		*65.1 - 134*	*08/07/14 08:32*	*08/07/14 20:29*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**51.6**		10.4		mg/kg dry	☼	08/06/14 08:12	08/08/14 12:50	1.00
Heavy Oil Range Hydrocarbons	ND		25.9		mg/kg dry	☼	08/06/14 08:12	08/08/14 12:50	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97.5*		*50 - 150*	*08/06/14 08:12*	*08/08/14 12:50*	*1.00*
n-Triacontane-d62	*80.1*		*50 - 150*	*08/06/14 08:12*	*08/08/14 12:50*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.25**		1.54		mg/kg dry	☼	08/08/14 11:53	08/12/14 11:53	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Client Sample ID: Duplicate
Date Collected: 08/01/14 07:00
Date Received: 08/05/14 10:25

Lab Sample ID: SXH0013-10
Matrix: Soil
Percent Solids: 81.1

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0364		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:44	1.00
Benzene	**0.137**		0.0182		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:44	1.00
Toluene	**4.60**		0.121		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:44	1.00
Ethylbenzene	**13.6**		2.43		mg/kg dry	☼	08/06/14 07:41	08/06/14 14:53	20.0
m,p-Xylene	**63.2**		9.72		mg/kg dry	☼	08/06/14 07:41	08/06/14 14:53	20.0
o-Xylene	**20.6**		4.86		mg/kg dry	☼	08/06/14 07:41	08/06/14 14:53	20.0
1,2-Dichloroethane (EDC)	ND		0.121		mg/kg dry	☼	08/06/14 07:41	08/06/14 13:44	1.00
Xylenes (total)	**83.8**		14.6		mg/kg dry	☼	08/06/14 07:41	08/06/14 14:53	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*89.1*		*80 - 120*	*08/06/14 07:41*	*08/06/14 13:44*	*1.00*
1,2-dichloroethane-d4	*105*		*74.7 - 120*	*08/06/14 07:41*	*08/06/14 13:44*	*1.00*
Toluene-d8	*100*		*78.5 - 125*	*08/06/14 07:41*	*08/06/14 13:44*	*1.00*
4-bromofluorobenzene	*108*		*69.8 - 140*	*08/06/14 07:41*	*08/06/14 13:44*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**1160**		60.7		mg/kg dry	☼	08/06/14 07:41	08/06/14 14:07	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*91.7*		*41.5 - 162*	*08/06/14 07:41*	*08/06/14 14:07*	*10.0*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.15		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:04	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**1.58**		0.0226		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:52	1.00
2-Methylnaphthalene	**2.02**		0.0226		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:52	1.00
1-Methylnaphthalene	**1.18**		0.0226		mg/kg dry	☼	08/07/14 08:32	08/07/14 20:52	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*103*		*36.3 - 152*	*08/07/14 08:32*	*08/07/14 20:52*	*1.00*
2-FBP	*81.0*		*30.2 - 135*	*08/07/14 08:32*	*08/07/14 20:52*	*1.00*
p-Terphenyl-d14	*84.2*		*65.1 - 134*	*08/07/14 08:32*	*08/07/14 20:52*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**41.6**		12.2		mg/kg dry	☼	08/06/14 08:12	08/08/14 13:14	1.00
Heavy Oil Range Hydrocarbons	ND		30.5		mg/kg dry	☼	08/06/14 08:12	08/08/14 13:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*08/06/14 08:12*	*08/08/14 13:14*	*1.00*
n-Triacontane-d62	*82.1*		*50 - 150*	*08/06/14 08:12*	*08/08/14 13:14*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.24**		1.47		mg/kg dry	☼	08/08/14 11:53	08/12/14 11:57	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14H0013-BLK1
Matrix: Soil
Analysis Batch: 14H0013

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0013_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
Benzene	ND		0.0150		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
Toluene	ND		0.100		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
Ethylbenzene	ND		0.100		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
m,p-Xylene	ND		0.400		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
o-Xylene	ND		0.200		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00
Xylenes (total)	ND		0.600		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*80 - 120*	*08/06/14 07:41*	*08/06/14 09:33*	*1.00*
1,2-dichloroethane-d4	*104*		*74.7 - 120*	*08/06/14 07:41*	*08/06/14 09:33*	*1.00*
Toluene-d8	*100*		*78.5 - 125*	*08/06/14 07:41*	*08/06/14 09:33*	*1.00*
4-bromofluorobenzene	*98.1*		*69.8 - 140*	*08/06/14 07:41*	*08/06/14 09:33*	*1.00*

Lab Sample ID: 14H0013-BS1
Matrix: Soil
Analysis Batch: 14H0013

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0013_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.557		mg/kg wet		111	60 - 140
Benzene	0.500	0.492		mg/kg wet		98.3	75.8 - 123
Toluene	0.500	0.487		mg/kg wet		97.4	76.6 - 125
Ethylbenzene	0.500	0.483		mg/kg wet		96.6	77.3 - 121
m,p-Xylene	0.500	0.480		mg/kg wet		95.9	77.7 - 124
o-Xylene	0.500	0.519		mg/kg wet		104	76.7 - 129
Naphthalene	0.500	0.495		mg/kg wet		99.0	55.1 - 142
1,2-Dichloroethane (EDC)	0.500	0.528		mg/kg wet		106	71.1 - 142
1,2-Dibromoethane	0.500	0.564		mg/kg wet		113	77.1 - 129
Xylenes (total)	1.00	0.998		mg/kg wet		99.8	76.5 - 124
Hexane	0.500	0.516		mg/kg wet		103	77 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*101*		*80 - 120*
1,2-dichloroethane-d4	*108*		*74.7 - 120*
Toluene-d8	*99.7*		*78.5 - 125*
4-bromofluorobenzene	*95.1*		*69.8 - 140*

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

Lab Sample ID: 14H0013-BLK1
Matrix: Soil
Analysis Batch: 14H0013

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0013_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		08/06/14 07:41	08/06/14 09:33	1.00

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

Lab Sample ID: 14H0013-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0013 — **Prep Batch: 14H0013_P**

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	*89.9*		*41.5 - 162*	*08/06/14 07:41*	*08/06/14 09:33*	*1.00*

Lab Sample ID: 14H0013-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0013 — **Prep Batch: 14H0013_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	50.0	46.1		mg/kg wet		92.3	74.4 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-bromofluorobenzene	*90.9*		*41.5 - 162*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14H0023-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0023 — **Prep Batch: 14H0023_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		08/07/14 13:48	08/11/14 14:50	1.00

Lab Sample ID: 14H0023-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0023 — **Prep Batch: 14H0023_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	3.95		ug/kg wet		79.0	60 - 140
1,2-Dibromo-3-chloropropane	5.00	6.54		ug/kg wet		131	60 - 140

Lab Sample ID: 14H0023-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0023 — **Prep Batch: 14H0023_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	5.31		ug/kg wet		106	60 - 140
1,2-Dibromo-3-chloropropane	5.00	5.95		ug/kg wet		119	60 - 140

Lab Sample ID: 14H0023-MS1 — **Client Sample ID: SVMW-3(17-18)**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0023 — **Prep Batch: 14H0023_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	ND		6.00	5.12		ug/kg dry	☼	85.4	60 - 140
1,2-Dibromo-3-chloropropane	ND		6.00	5.18		ug/kg dry	☼	86.3	60 - 140

Method: EPA 8011 - EDB by EPA Method 8011 (Continued)

Lab Sample ID: 14H0023-MSD1 — **Client Sample ID: SVMW-3(17-18)**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0023 — **Prep Batch: 14H0023_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		5.97	5.30		ug/kg dry	☼	88.8	60 - 140	3.47	20
1,2-Dibromo-3-chloropropane	ND		5.97	5.20		ug/kg dry	☼	87.0	60 - 140	0.446	20

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14H0019-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0019 — **Prep Batch: 14H0019_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		08/07/14 08:32	08/07/14 17:06	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		08/07/14 08:32	08/07/14 17:06	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		08/07/14 08:32	08/07/14 17:06	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*95.8*		*36.3 - 152*	*08/07/14 08:32*	*08/07/14 17:06*	*1.00*
2-FBP	*82.6*		*30.2 - 135*	*08/07/14 08:32*	*08/07/14 17:06*	*1.00*
p-Terphenyl-d14	*96.2*		*65.1 - 134*	*08/07/14 08:32*	*08/07/14 17:06*	*1.00*

Lab Sample ID: 14H0019-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0019 — **Prep Batch: 14H0019_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.133	0.103		mg/kg wet		77.5	62.7 - 120
Fluorene	0.133	0.107		mg/kg wet		80.0	67.9 - 124
Chrysene	0.133	0.105		mg/kg wet		79.0	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.133	0.103		mg/kg wet		77.5	52.6 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*59.8*		*36.3 - 152*
2-FBP	*73.8*		*30.2 - 135*
p-Terphenyl-d14	*83.6*		*65.1 - 134*

Lab Sample ID: 14H0019-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0019 — **Prep Batch: 14H0019_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.133	0.103		mg/kg wet		77.5	62.7 - 120
Fluorene	0.133	0.121		mg/kg wet		90.5	67.9 - 124
Chrysene	0.133	0.105		mg/kg wet		78.5	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.133	0.106		mg/kg wet		79.5	52.6 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*74.6*		*36.3 - 152*
2-FBP	*72.0*		*30.2 - 135*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14H0019-BS2
Matrix: Soil
Analysis Batch: 14H0019

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0019_P

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14	*81.2*		*65.1 - 134*

Lab Sample ID: 14H0019-BS3
Matrix: Soil
Analysis Batch: 14H0019

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0019_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.133	0.0933		mg/kg wet		70.0	62.7 - 120
Fluorene	0.133	0.107		mg/kg wet		80.5	67.9 - 124
Chrysene	0.133	0.101		mg/kg wet		75.5	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.133	0.103		mg/kg wet		77.5	52.6 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*70.8*		*36.3 - 152*
2-FBP	*69.0*		*30.2 - 135*
p-Terphenyl-d14	*77.0*		*65.1 - 134*

Lab Sample ID: 14H0019-BS4
Matrix: Soil
Analysis Batch: 14H0019

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0019_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.133	0.109		mg/kg wet		81.5	62.7 - 120
Fluorene	0.133	0.131		mg/kg wet		98.0	67.9 - 124
Chrysene	0.133	0.112		mg/kg wet		84.0	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.133	0.111		mg/kg wet		83.0	52.6 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*84.2*		*36.3 - 152*
2-FBP	*84.2*		*30.2 - 135*
p-Terphenyl-d14	*84.6*		*65.1 - 134*

Lab Sample ID: 14H0019-MS1
Matrix: Soil
Analysis Batch: 14H0019

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14H0019_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.58		0.271	1.36	MHA	mg/kg dry	☼	-81.4	30 - 120
Fluorene	0.0120		0.271	0.270		mg/kg dry	☼	95.1	30 - 140
Chrysene	ND		0.271	0.220		mg/kg dry	☼	81.0	30 - 133
Indeno (1,2,3-cd) pyrene	ND		0.271	0.250		mg/kg dry	☼	92.0	30 - 140

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*98.8*		*36.3 - 152*
2-FBP	*84.6*		*30.2 - 135*
p-Terphenyl-d14	*80.8*		*65.1 - 134*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14H0019-MSD1
Matrix: Soil
Analysis Batch: 14H0019

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14H0019_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	1.58		0.289	1.38	MHA	mg/kg dry	☼	-67.4	30 - 120	1.87	35
Fluorene	0.0120		0.289	0.261		mg/kg dry	☼	85.8	30 - 140	3.56	35
Chrysene	ND		0.289	0.210		mg/kg dry	☼	72.5	30 - 133	4.61	35
Indeno (1,2,3-cd) pyrene	ND		0.289	0.221		mg/kg dry	☼	76.5	30 - 140	12.0	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*85.2*		*36.3 - 152*
2-FBP	*70.8*		*30.2 - 135*
p-Terphenyl-d14	*72.8*		*65.1 - 134*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14H0015-BLK1
Matrix: Soil
Analysis Batch: 14H0015

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0015_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		08/06/14 08:12	08/08/14 10:36	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		08/06/14 08:12	08/08/14 10:36	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95.9*		*50 - 150*	*08/06/14 08:12*	*08/08/14 10:36*	*1.00*
n-Triacontane-d62	*80.0*		*50 - 150*	*08/06/14 08:12*	*08/08/14 10:36*	*1.00*

Lab Sample ID: 14H0015-BS1
Matrix: Soil
Analysis Batch: 14H0015

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0015_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	66.7	64.2		mg/kg wet		96.3	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*103*		*50 - 150*
n-Triacontane-d62	*83.1*		*50 - 150*

Lab Sample ID: 14H0015-DUP1
Matrix: Soil
Analysis Batch: 14H0015

Client Sample ID: SVMW-1(17-18)
Prep Type: Total
Prep Batch: 14H0015_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Hydrocarbons	11.7		29.2	R2	mg/kg dry	☼	85.5	40
Heavy Oil Range Hydrocarbons	34.2		124	R2	mg/kg dry	☼	113	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*99.1*		*50 - 150*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 14H0015-DUP1 — **Client Sample ID: SVMW-1(17-18)**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0015 — **Prep Batch: 14H0015_P**

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
n-Triacontane-d62	*85.4*		*50 - 150*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Lab Sample ID: 14H0029-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.25		mg/kg wet		08/08/14 11:53	08/11/14 18:43	1.00

Lab Sample ID: 14H0029-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	51.5		mg/kg wet		103	80 - 120

Lab Sample ID: 14H0029-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	3.15		51.7	54.7		mg/kg dry	☼	99.6	75 - 125

Lab Sample ID: 14H0029-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	3.15		55.5	60.0		mg/kg dry	☼	102	75 - 125	9.25	20

Lab Sample ID: 14H0029-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Lead	3.15		3.53		mg/kg dry	☼	11.3	20

Client Sample ID: SVMW-1(17-18)

Lab Sample ID: SXH0013-02

Date Collected: 07/28/14 13:25

Matrix: Soil

Date Received: 08/05/14 10:25

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.765	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0013	08/06/14 12:13	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.765	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0013	08/06/14 12:13	CBW	TAL SPK
Total	Prep	EPA 3580		0.861	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 15:47	NMI	TAL SPK
Total	Prep	EPA 3550B		1.75	14H0019_P	08/07/14 08:32	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0019	08/07/14 19:44	NMI	TAL SPK
Total	Prep	EPA 3550B		0.807	14H0015_P	08/06/14 08:12	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0015	08/08/14 12:01	NMI	TAL SPK
Total	Prep	EPA 3050B		0.990	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 11:45	ICP	TAL SPK

Client Sample ID: SVMW-2(7-8)

Lab Sample ID: SXH0013-05

Date Collected: 07/31/14 12:45

Matrix: Soil

Date Received: 08/05/14 10:25

Percent Solids: 90

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.03	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0013	08/06/14 12:35	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.03	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0013	08/06/14 12:35	CBW	TAL SPK
Total	Prep	EPA 3580		0.855	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 14:50	NMI	TAL SPK
Total	Prep	EPA 3550B		1.87	14H0019_P	08/07/14 08:32	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0019	08/07/14 20:07	NMI	TAL SPK
Total	Prep	EPA 3550B		0.983	14H0015_P	08/06/14 08:12	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0015	08/08/14 12:26	NMI	TAL SPK
Total	Prep	EPA 3050B		0.847	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 11:49	ICP	TAL SPK

Client Sample ID: SVMW-3(17-18)

Lab Sample ID: SXH0013-09

Date Collected: 08/01/14 08:40

Matrix: Soil

Date Received: 08/05/14 10:25

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.780	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0013	08/06/14 12:58	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.780	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		10.0	14H0013	08/06/14 13:21	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.780	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0013	08/06/14 12:58	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.780	14H0013_P	08/06/14 07:41	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Client Sample ID: SVMW-3(17-18)

Lab Sample ID: SXH0013-09

Date Collected: 08/01/14 08:40
Matrix: Soil
Date Received: 08/05/14 10:25
Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Gx		10.0	14H0013	08/06/14 13:21	CBW	TAL SPK
Total	Prep	EPA 3580		0.940	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 16:02	NMI	TAL SPK
Total	Prep	EPA 3550B		1.74	14H0019_P	08/07/14 08:32	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0019	08/07/14 20:29	NMI	TAL SPK
Total	Prep	EPA 3550B		0.833	14H0015_P	08/06/14 08:12	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0015	08/08/14 12:50	NMI	TAL SPK
Total	Prep	EPA 3050B		0.990	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 11:53	ICP	TAL SPK

Client Sample ID: Duplicate

Lab Sample ID: SXH0013-10

Date Collected: 08/01/14 07:00
Matrix: Soil
Date Received: 08/05/14 10:25
Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.796	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0013	08/06/14 13:44	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.796	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		20.0	14H0013	08/06/14 14:53	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.796	14H0013_P	08/06/14 07:41	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		10.0	14H0013	08/06/14 14:07	CBW	TAL SPK
Total	Prep	EPA 3580		0.929	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 15:04	NMI	TAL SPK
Total	Prep	EPA 3550B		1.83	14H0019_P	08/07/14 08:32	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0019	08/07/14 20:52	NMI	TAL SPK
Total	Prep	EPA 3550B		0.989	14H0015_P	08/06/14 08:12	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0015	08/08/14 13:14	NMI	TAL SPK
Total	Prep	EPA 3050B		0.952	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 11:57	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	14H0039_P	08/06/14 10:06	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14H0039	08/12/14 09:04	NI	TAL SPK

Laboratory References:

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0013

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290 [X]
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 #: SXH0013

CLIENT:

REPORT TO: JR Sucalski
ADDRESS: 523 E. Second Ave., Spokane, WA 99202

PHONE: 509 363 3125 FAX:

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Tiger Oil - Summitview
PROJECT NUMBER: 0504-001-00
SAMPLED BY: Aaron Frederick

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: NWTPH-Dx	NWTPH-Gx	8270 Naphthalenes	601 EDB	Pb Gold	8260 BTEX	8260 EDC	8260 MTBE	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 SVMW-1 (7-8)	7/28/14	1305										S	2	Hold	
2 SVMW-1 (17-18)	7/28/14	1325		X	X	X	X	X	X	X	X	S	2		
3 SVMW-1 (37-38')	7/28/14	1505										S	3	Hold	
4 SVMW-2 (2-3')	7/31/14	1240										S	2	Hold	
5 SVMW-2 (7-8')	7/31/14	1245		X	X	X	X	X	X	X	X	S	2		
6 SVMW-2 (14-15')	7/31/14	1315										S	2	Hold	
7 SVMW-3 (4-5')	8/1/14	0900										S	2	Hold	
8 SVMW-3 (14-15)	8/1/14	0825										S	3	Hold	
9 SVMW-3 (17-18)	8/1/14	0840		X	X	X	X	X	X	X	X	S	3		
10 ~~SVMW-4~~ Duplicate	8/~~2~~1/14	0700		X	X	X	X	X	X	X	X	S	3		

RELEASED BY: [signature] DATE: 8/4/14
PRINT NAME: Aaron Frederick FIRM: GEI TIME: 1100

RECEIVED BY: Cat Stapleton DATE: 8-4-14
PRINT NAME: FIRM: TestAmerica TIME: 10:25

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

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

ADDITIONAL REMARKS:

TEMP: 4.7

PAGE OF

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: 3XH0013	Client: GeoEngineers	Project: Tiger Oil
Date/Time Received: 8-5-14 10:25	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:	Y			
Custody Seals are present and intact:			Y	
Are CoC documents present:	Y			
Necessary signatures:	Y			

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

Temperature: 4.7 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

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

Log-In Phase Date/Time: 8/5/14 10:40 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)			Y	
Are dissolved parameters field filtered			Y	
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis			Y	
Are there any short hold time tests (see chart below)		Y		
Are any samples within 2 days of or past expiration		Y		
Was the CoC scanned	Y			
Were there Non-conformance issues at login		Y	Y	
If yes, was a CAR generated # _____			Y	

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

Form No. SP-FORM-SPL-002 12 December 2012

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: SXD0112
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - Summit View

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

Attn: JR Sugalski

Authorized for release by:
4/30/2014 3:03:22 PM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXD0112-03	041414:SVDP-1:13.5	Soil	04/14/14 08:50	04/17/14 13:00
SXD0112-06	041414:SVDP-1:GW	Water	04/14/14 09:45	04/17/14 13:00
SXD0112-10	041414:SVDP-2:19	Soil	04/14/14 10:35	04/17/14 13:00
SXD0112-11	041414:SVDP-2:21	Soil	04/14/14 10:45	04/17/14 13:00
SXD0112-12	041414:SVDP-2:GW	Water	04/14/14 11:00	04/17/14 13:00
SXD0112-14	041414:SVDP-3:7	Soil	04/14/14 11:30	04/17/14 13:00
SXD0112-19	041414:SVDP-5:19	Soil	04/14/14 14:30	04/17/14 13:00
SXD0112-20	041414:SVDP-6:18	Soil	04/14/14 15:20	04/17/14 13:00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Qualifiers

Fuels

Qualifier	Qualifier Description
Z6	Surrogate recovery was below acceptance limits.
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.

Metals

Qualifier	Qualifier Description
RL3	Reporting limit raised due to high concentrations of non-target analytes.

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
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: 041414:SVDP-1:13.5
Date Collected: 04/14/14 08:50
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0112-03
Matrix: Soil
Percent Solids: 96.1

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0575		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:55	10.0
Benzene	**0.652**		0.0479		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:55	10.0
1,2-Dichloroethane (EDC)	ND		0.958		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:55	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*97.0*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 15:55*	*10.0*
1,2-dichloroethane-d4	*108*		*50 - 150*	*04/18/14 07:55*	*04/18/14 15:55*	*10.0*
Toluene-d8	*93.2*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 15:55*	*10.0*
4-bromofluorobenzene	*115*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 15:55*	*10.0*

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**98.0**		9.58		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:36	100
Ethylbenzene	**86.1**		9.58		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:36	100
m,p-Xylene	**388**		38.3		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:36	100
o-Xylene	**152**		19.2		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:36	100
Xylenes (total)	**540**		57.5		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:36	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95.9*		*42.4 - 163*	*04/18/14 07:55*	*04/21/14 10:36*	*100*
1,2-dichloroethane-d4	*97.9*		*50 - 150*	*04/18/14 07:55*	*04/21/14 10:36*	*100*
Toluene-d8	*102*		*45.8 - 155*	*04/18/14 07:55*	*04/21/14 10:36*	*100*
4-bromofluorobenzene	*95.2*		*41.5 - 162*	*04/18/14 07:55*	*04/21/14 10:36*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**5610**		479		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:36	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95.9*		*42.4 - 163*	*04/18/14 07:55*	*04/21/14 10:36*	*100*
Toluene-d8	*102*		*45.8 - 155*	*04/18/14 07:55*	*04/21/14 10:36*	*100*
4-bromofluorobenzene	*95.2*		*41.5 - 162*	*04/18/14 07:55*	*04/21/14 10:36*	*100*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.850		ug/kg dry	☼	04/21/14 15:28	04/22/14 14:44	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**17.8**		1.06		mg/kg dry	☼	04/24/14 13:00	04/25/14 13:14	50.0
2-Methylnaphthalene	**18.9**		1.06		mg/kg dry	☼	04/24/14 13:00	04/25/14 13:14	50.0
1-Methylnaphthalene	**8.11**		1.06		mg/kg dry	☼	04/24/14 13:00	04/25/14 13:14	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*110*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 13:14*	*50.0*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**640**		26.2		mg/kg dry	☼	04/22/14 15:35	04/23/14 10:15	1.00
Heavy Oil Range Hydrocarbons	ND		65.5		mg/kg dry	☼	04/22/14 15:35	04/23/14 10:15	1.00

Client Sample ID: 041414:SVDP-1:13.5

Lab Sample ID: SXD0112-03

Date Collected: 04/14/14 08:50
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 96.1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*04/22/14 15:35*	*04/23/14 10:15*	*1.00*
n-Triacontane-d62	*95.7*		*50 - 150*	*04/22/14 15:35*	*04/23/14 10:15*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**2800**		37		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:28	1.0
Diesel Range Hydrocarbons	**920**		93		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:28	1.0
Heavy Oil Range Hydrocarbons	ND		93		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:28	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)		*Z*	*50 - 150*	*04/18/14 15:46*	*04/19/14 01:28*	*1.0*
2-FBP	*97.3*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:28*	*1.0*
p-Terphenyl-d14	*97.4*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:28*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	RL3	2.86		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:39	2.00

Client Sample ID: 041414:SVDP-1:GW

Lab Sample ID: SXD0112-06

Date Collected: 04/14/14 09:45
Matrix: Water
Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**3.7**		0.62		mg/l		04/18/14 08:26	04/18/14 18:17	1.0
Diesel Range Hydrocarbons	**0.95**		0.62		mg/l		04/18/14 08:26	04/18/14 18:17	1.0
Heavy Oil Range Hydrocarbons	ND		0.62		mg/l		04/18/14 08:26	04/18/14 18:17	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*58.9*		*50 - 150*	*04/18/14 08:26*	*04/18/14 18:17*	*1.0*
2-FBP	*61.1*		*50 - 150*	*04/18/14 08:26*	*04/18/14 18:17*	*1.0*
p-Terphenyl-d14	*88.8*		*50 - 150*	*04/18/14 08:26*	*04/18/14 18:17*	*1.0*

Client Sample ID: 041414:SVDP-2:19

Lab Sample ID: SXD0112-10

Date Collected: 04/14/14 10:35
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 79.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0694		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:17	10.0
Benzene	**1.24**		0.0579		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:17	10.0
Ethylbenzene	**51.4**		1.16		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:17	10.0
1,2-Dichloroethane (EDC)	ND		1.16		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:17	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*88.5*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*
1,2-dichloroethane-d4	*98.6*		*50 - 150*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*
Toluene-d8	*94.1*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*
4-bromofluorobenzene	*107*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Client Sample ID: 041414:SVDP-2:19
Date Collected: 04/14/14 10:35
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0112-10
Matrix: Soil
Percent Solids: 79.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	81.2		11.6		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:59	100
m,p-Xylene	215		46.3		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:59	100
o-Xylene	82.9		23.1		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:59	100
Xylenes (total)	298		69.4		mg/kg dry	☼	04/18/14 07:55	04/21/14 10:59	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*96.5*		*42.4 - 163*	*04/18/14 07:55*	*04/21/14 10:59*	*100*
1,2-dichloroethane-d4	*98.3*		*50 - 150*	*04/18/14 07:55*	*04/21/14 10:59*	*100*
Toluene-d8	*97.6*		*45.8 - 155*	*04/18/14 07:55*	*04/21/14 10:59*	*100*
4-bromofluorobenzene	*97.2*		*41.5 - 162*	*04/18/14 07:55*	*04/21/14 10:59*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	4770		57.9		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:17	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*88.5*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*
Toluene-d8	*94.1*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*
4-bromofluorobenzene	*107*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 16:17*	*10.0*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.04		ug/kg dry	☼	04/21/14 15:28	04/22/14 14:56	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	9.46		1.67		mg/kg dry	☼	04/24/14 13:00	04/25/14 13:36	50.0
2-Methylnaphthalene	11.2		1.67		mg/kg dry	☼	04/24/14 13:00	04/25/14 13:36	50.0
1-Methylnaphthalene	5.01		1.67		mg/kg dry	☼	04/24/14 13:00	04/25/14 13:36	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70.0*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 13:36*	*50.0*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	344		37.5		mg/kg dry	☼	04/22/14 15:35	04/23/14 10:38	1.00
Heavy Oil Range Hydrocarbons	ND		93.8		mg/kg dry	☼	04/22/14 15:35	04/23/14 10:38	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82.5*		*50 - 150*	*04/22/14 15:35*	*04/23/14 10:38*	*1.00*
n-Triacontane-d62	*86.3*		*50 - 150*	*04/22/14 15:35*	*04/23/14 10:38*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	1500		43		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:53	1.0
Diesel Range Hydrocarbons	470		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:53	1.0
Heavy Oil Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:53	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*155*	*Z*	*50 - 150*	*04/18/14 15:46*	*04/19/14 01:53*	*1.0*
2-FBP	*97.7*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:53*	*1.0*
p-Terphenyl-d14	*92.3*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:53*	*1.0*

Client Sample ID: 041414:SVDP-2:19

Lab Sample ID: SXD0112-10

Date Collected: 04/14/14 10:35
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 79.8

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.23**		1.42		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:43	1.00

Client Sample ID: 041414:SVDP-2:21

Lab Sample ID: SXD0112-11

Date Collected: 04/14/14 10:45
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 87.1

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0554		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
Benzene	**0.263**		0.0462		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
Toluene	**10.9**		0.924		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
Ethylbenzene	**9.47**		0.924		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
m,p-Xylene	**34.3**		3.70		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
o-Xylene	**13.9**		1.85		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
1,2-Dichloroethane (EDC)	ND		0.924		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0
Xylenes (total)	**48.2**		5.54		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*89.9*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*
1,2-dichloroethane-d4	*96.7*		*50 - 150*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*
Toluene-d8	*99.5*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*
4-bromofluorobenzene	*102*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**1220**		46.2		mg/kg dry	☼	04/18/14 07:55	04/18/14 16:40	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*89.9*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*
Toluene-d8	*99.5*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*
4-bromofluorobenzene	*102*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 16:40*	*10.0*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.999		ug/kg dry	☼	04/21/14 15:28	04/22/14 15:21	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.296**		0.0169		mg/kg dry	☼	04/24/14 13:00	04/28/14 16:42	1.00
2-Methylnaphthalene	**0.456**		0.0169		mg/kg dry	☼	04/24/14 13:00	04/28/14 16:42	1.00
1-Methylnaphthalene	**0.199**		0.0169		mg/kg dry	☼	04/24/14 13:00	04/28/14 16:42	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68.6*		*36.3 - 152*	*04/24/14 13:00*	*04/28/14 16:42*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**51.0**		27.9		mg/kg dry	☼	04/22/14 15:35	04/23/14 11:00	1.00
Heavy Oil Range Hydrocarbons	ND		69.7		mg/kg dry	☼	04/22/14 15:35	04/23/14 11:00	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97.4*		*50 - 150*	*04/22/14 15:35*	*04/23/14 11:00*	*1.00*

Client Sample ID: 041414:SVDP-2:21

Lab Sample ID: SXD0112-11

Date Collected: 04/14/14 10:45

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 87.1

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Triacontane-d62	*108*		*50 - 150*	*04/22/14 15:35*	*04/23/14 11:00*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**53**		45		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:53	1.0
Diesel Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:53	1.0
Heavy Oil Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:53	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	*103*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:53*	*1.0*
2-FBP	*99.2*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:53*	*1.0*
p-Terphenyl-d14	*85.0*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:53*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**3.39**		1.54		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:57	1.00

Client Sample ID: 041414:SVDP-2:GW

Lab Sample ID: SXD0112-12

Date Collected: 04/14/14 11:00

Matrix: Water

Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**41**		0.62		mg/l		04/18/14 08:26	04/18/14 18:17	1.0
Diesel Range Hydrocarbons	**16**		0.62		mg/l		04/18/14 08:26	04/18/14 18:17	1.0
Heavy Oil Range Hydrocarbons	**0.94**		0.62		mg/l		04/18/14 08:26	04/18/14 18:17	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)		*Z*	*50 - 150*	*04/18/14 08:26*	*04/18/14 18:17*	*1.0*
2-FBP	*73.9*		*50 - 150*	*04/18/14 08:26*	*04/18/14 18:17*	*1.0*
p-Terphenyl-d14	*89.9*		*50 - 150*	*04/18/14 08:26*	*04/18/14 18:17*	*1.0*

Client Sample ID: 041414:SVDP-3:7

Lab Sample ID: SXD0112-14

Date Collected: 04/14/14 11:30

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 84.6

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00699		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
Benzene	ND		0.00583		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
Toluene	ND		0.117		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
Ethylbenzene	ND		0.117		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
m,p-Xylene	ND		0.466		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
o-Xylene	ND		0.233		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
1,2-Dichloroethane (EDC)	ND		0.117		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00
Xylenes (total)	ND		0.699		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*95.5*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 17:02*	*1.00*
1,2-dichloroethane-d4	*98.7*		*50 - 150*	*04/18/14 07:55*	*04/18/14 17:02*	*1.00*
Toluene-d8	*97.7*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 17:02*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Client Sample ID: 041414:SVDP-3:7
Date Collected: 04/14/14 11:30
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0112-14
Matrix: Soil
Percent Solids: 84.6

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	*100*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 17:02*	*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		5.83		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:02	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*95.5*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 17:02*	*1.00*
Toluene-d8	*97.7*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 17:02*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 17:02*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.13		ug/kg dry	☼	04/21/14 15:28	04/22/14 15:33	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0117		mg/kg dry	☼	04/24/14 13:00	04/28/14 17:03	1.00
2-Methylnaphthalene	ND		0.0117		mg/kg dry	☼	04/24/14 13:00	04/28/14 17:03	1.00
1-Methylnaphthalene	ND		0.0117		mg/kg dry	☼	04/24/14 13:00	04/28/14 17:03	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*72.2*		*36.3 - 152*	*04/24/14 13:00*	*04/28/14 17:03*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		22.2		mg/kg dry	☼	04/22/14 15:35	04/23/14 16:02	1.00
Heavy Oil Range Hydrocarbons	**59.6**		55.5		mg/kg dry	☼	04/22/14 15:35	04/23/14 16:02	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*98.5*		*50 - 150*	*04/22/14 15:35*	*04/23/14 16:02*	*1.00*
n-Triacontane-d62	*104*		*50 - 150*	*04/22/14 15:35*	*04/23/14 16:02*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		43		mg/kg dry	☼	04/18/14 15:46	04/19/14 02:19	1.0
Diesel Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 02:19	1.0
Heavy Oil Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 02:19	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	*95.8*		*50 - 150*	*04/18/14 15:46*	*04/19/14 02:19*	*1.0*
2-FBP	*99.1*		*50 - 150*	*04/18/14 15:46*	*04/19/14 02:19*	*1.0*
p-Terphenyl-d14	*94.5*		*50 - 150*	*04/18/14 15:46*	*04/19/14 02:19*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.21**		1.51		mg/kg dry	☼	04/28/14 13:31	04/29/14 19:00	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Client Sample ID: 041414:SVDP-5:19
Date Collected: 04/14/14 14:30
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0112-19
Matrix: Soil
Percent Solids: 82

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00691		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
Benzene	ND		0.00576		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
Toluene	ND		0.115		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
Ethylbenzene	ND		0.115		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
m,p-Xylene	ND		0.461		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
o-Xylene	ND		0.230		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
1,2-Dichloroethane (EDC)	ND		0.115		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00
Xylenes (total)	ND		0.691		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95.7*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 17:25*	*1.00*
1,2-dichloroethane-d4	*102*		*50 - 150*	*04/18/14 07:55*	*04/18/14 17:25*	*1.00*
Toluene-d8	*97.2*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 17:25*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 17:25*	*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		5.76		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:25	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95.7*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 17:25*	*1.00*
Toluene-d8	*97.2*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 17:25*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 17:25*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.08		ug/kg dry	☼	04/21/14 15:28	04/22/14 15:45	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0120		mg/kg dry	☼	04/24/14 13:00	04/25/14 14:40	1.00
2-Methylnaphthalene	ND		0.0120		mg/kg dry	☼	04/24/14 13:00	04/25/14 14:40	1.00
1-Methylnaphthalene	ND		0.0120		mg/kg dry	☼	04/24/14 13:00	04/25/14 14:40	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*72.0*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 14:40*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		24.3		mg/kg dry	☼	04/22/14 15:35	04/23/14 11:23	1.00
Heavy Oil Range Hydrocarbons	ND		60.7		mg/kg dry	☼	04/22/14 15:35	04/23/14 11:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95.9*		*50 - 150*	*04/22/14 15:35*	*04/23/14 11:23*	*1.00*
n-Triacontane-d62	*105*		*50 - 150*	*04/22/14 15:35*	*04/23/14 11:23*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		47		mg/kg dry	☼	04/18/14 15:46	04/19/14 02:44	1.0
Diesel Range Hydrocarbons	ND		120		mg/kg dry	☼	04/18/14 15:46	04/19/14 02:44	1.0
Heavy Oil Range Hydrocarbons	ND		120		mg/kg dry	☼	04/18/14 15:46	04/19/14 02:44	1.0

Client Sample ID: 041414:SVDP-5:19

Lab Sample ID: SXD0112-19

Date Collected: 04/14/14 14:30

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 82

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*92.3*		*50 - 150*	*04/18/14 15:46*	*04/19/14 02:44*	*1.0*
2-FBP	*91.8*		*50 - 150*	*04/18/14 15:46*	*04/19/14 02:44*	*1.0*
p-Terphenyl-d14	*88.0*		*50 - 150*	*04/18/14 15:46*	*04/19/14 02:44*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.79**		1.52		mg/kg dry	☼	04/28/14 13:31	04/29/14 19:04	1.00

Client Sample ID: 041414:SVDP-6:18

Lab Sample ID: SXD0112-20

Date Collected: 04/14/14 15:20

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 75.5

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00809		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
Benzene	ND		0.00674		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
Toluene	ND		0.135		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
Ethylbenzene	ND		0.135		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
m,p-Xylene	ND		0.539		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
o-Xylene	ND		0.270		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
1,2-Dichloroethane (EDC)	ND		0.135		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00
Xylenes (total)	ND		0.809		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*
1,2-dichloroethane-d4	*105*		*50 - 150*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*
Toluene-d8	*98.8*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*
4-bromofluorobenzene	*98.1*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.74		mg/kg dry	☼	04/18/14 07:55	04/18/14 17:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*
Toluene-d8	*98.8*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*
4-bromofluorobenzene	*98.1*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 17:47*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.11		ug/kg dry	☼	04/21/14 15:28	04/22/14 15:57	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0130		mg/kg dry	☼	04/24/14 13:00	04/25/14 15:01	1.00
2-Methylnaphthalene	ND		0.0130		mg/kg dry	☼	04/24/14 13:00	04/25/14 15:01	1.00
1-Methylnaphthalene	ND		0.0130		mg/kg dry	☼	04/24/14 13:00	04/25/14 15:01	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*67.2*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 15:01*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Client Sample ID: 041414:SVDP-6:18
Date Collected: 04/14/14 15:20
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0112-20
Matrix: Soil
Percent Solids: 75.5

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		24.1		mg/kg dry	☼	04/22/14 15:35	04/23/14 11:23	1.00
Heavy Oil Range Hydrocarbons	ND		60.3		mg/kg dry	☼	04/22/14 15:35	04/23/14 11:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97.8*		*50 - 150*	*04/22/14 15:35*	*04/23/14 11:23*	*1.00*
n-Triacontane-d62	*98.6*		*50 - 150*	*04/22/14 15:35*	*04/23/14 11:23*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		47		mg/kg dry	☼	04/21/14 10:00	04/21/14 15:03	1.0
Diesel Range Hydrocarbons	ND		120		mg/kg dry	☼	04/21/14 10:00	04/21/14 15:03	1.0
Heavy Oil Range Hydrocarbons	ND		120		mg/kg dry	☼	04/21/14 10:00	04/21/14 15:03	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*88.9*		*50 - 150*	*04/21/14 10:00*	*04/21/14 15:03*	*1.0*
2-FBP	*91.4*		*50 - 150*	*04/21/14 10:00*	*04/21/14 15:03*	*1.0*
p-Terphenyl-d14	*96.4*		*50 - 150*	*04/21/14 10:00*	*04/21/14 15:03*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.87**		1.59		mg/kg dry	☼	04/28/14 13:31	04/29/14 19:07	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14D0092-BLK1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0092_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00600		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Benzene	ND		0.00500		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Toluene	ND		0.100		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Ethylbenzene	ND		0.100		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
m,p-Xylene	ND		0.400		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
o-Xylene	ND		0.200		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Xylenes (total)	ND		0.600		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*96.1*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
1,2-dichloroethane-d4	*98.3*		*50 - 150*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
Toluene-d8	*101*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
4-bromofluorobenzene	*99.9*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*

Lab Sample ID: 14D0092-BS1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0092_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.477		mg/kg wet		95.4	79 - 127
Benzene	0.500	0.466		mg/kg wet		93.2	75.9 - 123
Toluene	0.500	0.415		mg/kg wet		83.0	77.3 - 126
Ethylbenzene	0.500	0.434		mg/kg wet		86.9	80 - 120
m,p-Xylene	0.500	0.432		mg/kg wet		86.4	80 - 120
o-Xylene	0.500	0.434		mg/kg wet		86.9	80 - 120
Naphthalene	0.500	0.506		mg/kg wet		101	58.8 - 130
1,2-Dichloroethane (EDC)	0.500	0.521		mg/kg wet		104	60 - 140
1,2-Dibromoethane	0.500	0.478		mg/kg wet		95.7	60 - 140
Xylenes (total)	1.00	0.866		mg/kg wet		86.6	80 - 120
Hexane	0.500	0.496		mg/kg wet		99.3	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*98.5*		*42.4 - 163*
1,2-dichloroethane-d4	*101*		*50 - 150*
Toluene-d8	*95.7*		*45.8 - 155*
4-bromofluorobenzene	*97.0*		*41.5 - 162*

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

Lab Sample ID: 14D0092-BLK1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0092_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00

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

Lab Sample ID: 14D0092-BLK1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0092_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*96.1*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
Toluene-d8	*101*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
4-bromofluorobenzene	*99.9*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*

Lab Sample ID: 14D0092-BS2
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0092_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons			50.0	52.2		mg/kg wet		104	74.4 - 124		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	*93.2*		*42.4 - 163*
Toluene-d8	*98.3*		*45.8 - 155*
4-bromofluorobenzene	*99.7*		*41.5 - 162*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14D0100-BLK1
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0100_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		04/21/14 15:28	04/22/14 11:19	1.00

Lab Sample ID: 14D0100-BS1
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0100_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane			5.00	5.53		ug/kg wet		111	60 - 140		

Lab Sample ID: 14D0100-BS2
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0100_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane			5.00	5.95		ug/kg wet		119	60 - 140		

Lab Sample ID: 14D0100-MS1
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 14D0100_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane	ND		6.13	5.79		ug/kg dry	☼	94.4	60 - 140		

Method: EPA 8011 - EDB by EPA Method 8011 (Continued)

Lab Sample ID: 14D0100-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0100 — **Prep Batch: 14D0100_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		4.89	4.93		ug/kg dry	☼	101	60 - 140	16.0	20

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14D0130-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		04/24/14 13:00	04/24/14 14:44	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		04/24/14 13:00	04/24/14 14:44	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		04/24/14 13:00	04/24/14 14:44	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85.2*		*36.3 - 152*	*04/24/14 13:00*	*04/24/14 14:44*	*1.00*

Lab Sample ID: 14D0130-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			0.133	0.115		mg/kg wet		86.0	62.7 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*77.4*		*36.3 - 152*

Lab Sample ID: 14D0130-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene	ND		0.176	0.151		mg/kg dry	☼	86.0	30 - 120		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*76.4*		*36.3 - 152*

Lab Sample ID: 14D0130-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		0.179	0.158		mg/kg dry	☼	88.5	30 - 120	4.64	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*78.2*		*36.3 - 152*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14D0115-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0115 — **Prep Batch: 14D0115_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		20.0		mg/kg wet		04/22/14 15:35	04/23/14 09:52	1.00
Heavy Oil Range Hydrocarbons	ND		50.0		mg/kg wet		04/22/14 15:35	04/23/14 09:52	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*04/22/14 15:35*	*04/23/14 09:52*	*1.00*
n-Triacontane-d62	*95.9*		*50 - 150*	*04/22/14 15:35*	*04/23/14 09:52*	*1.00*

Lab Sample ID: 14D0115-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0115 — **Prep Batch: 14D0115_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			66.7	59.4		mg/kg wet		89.1	73 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*100*		*50 - 150*
n-Triacontane-d62	*107*		*50 - 150*

Lab Sample ID: 14D0115-DUP1 — **Client Sample ID: 041414:SVDP-1:13.5**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0115 — **Prep Batch: 14D0115_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	640			493		mg/kg dry	☼			25.9	40
Heavy Oil Range Hydrocarbons	ND			ND		mg/kg dry	☼				40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*99.6*		*50 - 150*
n-Triacontane-d62	*107*		*50 - 150*

Lab Sample ID: 14D0115-DUP2 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0115 — **Prep Batch: 14D0115_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	10.7			13.6		mg/kg dry	☼			23.6	40
Heavy Oil Range Hydrocarbons	32.9			36.1		mg/kg dry	☼			9.26	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*101*		*50 - 150*
n-Triacontane-d62	*111*		*50 - 150*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Lab Sample ID: 14D0093-BLK1
Matrix: Water
Analysis Batch: 14D0093

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0093_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.63		mg/l		04/18/14 08:26	04/18/14 15:17	1.00
Diesel Range Hydrocarbons	ND		0.63		mg/l		04/18/14 08:26	04/18/14 15:17	1.00
Heavy Oil Range Hydrocarbons	ND		0.63		mg/l		04/18/14 08:26	04/18/14 15:17	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*33.2*	*Z6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 15:17*	*1.00*
2-FBP	*40.8*	*Z6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 15:17*	*1.00*
p-Terphenyl-d14	*87.2*		*50 - 150*	*04/18/14 08:26*	*04/18/14 15:17*	*1.00*

Lab Sample ID: 14D0099-BLK1
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0099_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		04/18/14 15:46	04/18/14 22:54	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		04/18/14 15:46	04/18/14 22:54	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		04/18/14 15:46	04/18/14 22:54	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*96.0*		*50 - 150*	*04/18/14 15:46*	*04/18/14 22:54*	*1.00*
2-FBP	*95.1*		*50 - 150*	*04/18/14 15:46*	*04/18/14 22:54*	*1.00*
p-Terphenyl-d14	*92.2*		*50 - 150*	*04/18/14 15:46*	*04/18/14 22:54*	*1.00*

Lab Sample ID: 14D0099-DUP1
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: 041414:SVDP-3:7
Prep Type: Total
Prep Batch: 14D0099_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	2.17			8.80	R4	mg/kg dry	☼			121	25
Diesel Range Hydrocarbons	6.38			12.9	R4	mg/kg dry	☼			67.9	25
Heavy Oil Range Hydrocarbons	22.9			95.5	R4	mg/kg dry	☼			123	25

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*98.3*		*50 - 150*
2-FBP	*103*		*50 - 150*
p-Terphenyl-d14	*99.0*		*50 - 150*

Lab Sample ID: 14D0099-DUP2
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: 041414:SVDP-5:19
Prep Type: Total
Prep Batch: 14D0099_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	0.00			7.93	R4	mg/kg dry	☼			200	25
Diesel Range Hydrocarbons	6.37			5.28	R4	mg/kg dry	☼			18.7	25
Heavy Oil Range Hydrocarbons	0.112			2.05	R4	mg/kg dry	☼			179	25

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Lab Sample ID: 14D0099-DUP2
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: 041414:SVDP-5:19
Prep Type: Total
Prep Batch: 14D0099_P

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*103*		*50 - 150*
2-FBP	*102*		*50 - 150*
p-Terphenyl-d14	*91.9*		*50 - 150*

Lab Sample ID: 14D0104-BLK1
Matrix: Soil
Analysis Batch: 14D0104

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0104_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		04/21/14 10:00	04/21/14 12:44	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		04/21/14 10:00	04/21/14 12:44	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		04/21/14 10:00	04/21/14 12:44	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*94.0*		*50 - 150*	*04/21/14 10:00*	*04/21/14 12:44*	*1.00*
2-FBP	*93.3*		*50 - 150*	*04/21/14 10:00*	*04/21/14 12:44*	*1.00*
p-Terphenyl-d14	*93.2*		*50 - 150*	*04/21/14 10:00*	*04/21/14 12:44*	*1.00*

Lab Sample ID: 14D0104-DUP1
Matrix: Soil
Analysis Batch: 14D0104

Client Sample ID: 041414:SVDP-6:18
Prep Type: Total
Prep Batch: 14D0104_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	10.1			4.04	R4	mg/kg dry	☼			85.6	25
Diesel Range Hydrocarbons	15.2			9.42	R4	mg/kg dry	☼			46.8	25
Heavy Oil Range Hydrocarbons	2.52			0.0600	R4	mg/kg dry	☼			191	25

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*101*		*50 - 150*
2-FBP	*100*		*50 - 150*
p-Terphenyl-d14	*97.5*		*50 - 150*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Lab Sample ID: 14D0146-BLK1
Matrix: Soil
Analysis Batch: 14D0146

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0146_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.25		mg/kg wet		04/28/14 13:31	04/29/14 17:32	1.00

Lab Sample ID: 14D0146-BS1
Matrix: Soil
Analysis Batch: 14D0146

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0146_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			50.0	49.1		mg/kg wet		98.2	80 - 120		

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B (Continued)

Lab Sample ID: 14D0146-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.25		54.3	54.2		mg/kg dry	☼	91.9	75 - 125

Lab Sample ID: 14D0146-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	4.25		54.9	54.7		mg/kg dry	☼	91.9	75 - 125	0.947	20

Lab Sample ID: 14D0146-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Lead	4.25		4.47		mg/kg dry	☼	5.18	20

Client Sample ID: 041414:SVDP-1:13.5

Lab Sample ID: SXD0112-03

Date Collected: 04/14/14 08:50

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.882	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		10.0	14D0092	04/18/14 15:55	CBW	TAL SPK
Total	Prep	GC/MS Volatiles	RE1	0.882	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C	RE1	100	14D0092	04/21/14 10:36	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.882	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		100	14D0092	04/21/14 10:36	CBW	TAL SPK
Total	Prep	EPA 3580		0.817	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 14:44	MS	TAL SPK
Total	Prep	EPA 3550B		2.03	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		50.0	14D0130	04/25/14 13:14	MRS	TAL SPK
Total	Prep	EPA 3550B		1.26	14D0115_P	04/22/14 15:35	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0115	04/23/14 10:15	MRS	TAL SPK
Total	Prep	EPA 3580		0.90	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 01:28	MRS	TAL SPK
Total	Prep	EPA 3050B		1.10	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		2.00	14D0146	04/29/14 18:39	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	14D0116_P	04/21/14 16:32	MS	TAL SPK
Total	Analysis	TA SOP		1.00	14D0116	04/22/14 12:10	MS	TAL SPK

Client Sample ID: 041414:SVDP-1:GW

Lab Sample ID: SXD0112-06

Date Collected: 04/14/14 09:45

Matrix: Water

Date Received: 04/17/14 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510/600 Series		0.99	14D0093_P	04/18/14 08:26	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0093	04/18/14 18:17	MRS	TAL SPK

Client Sample ID: 041414:SVDP-2:19

Lab Sample ID: SXD0112-10

Date Collected: 04/14/14 10:35

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.722	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		10.0	14D0092	04/18/14 16:17	CBW	TAL SPK
Total	Prep	GC/MS Volatiles	RE1	0.722	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C	RE1	100	14D0092	04/21/14 10:59	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.722	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		10.0	14D0092	04/18/14 16:17	CBW	TAL SPK
Total	Prep	EPA 3580		0.829	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 14:56	MS	TAL SPK
Total	Prep	EPA 3550B		2.66	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		50.0	14D0130	04/25/14 13:36	MRS	TAL SPK
Total	Prep	EPA 3550B		1.50	14D0115_P	04/22/14 15:35	MS	TAL SPK

Client Sample ID: 041414:SVDP-2:19

Lab Sample ID: SXD0112-10

Date Collected: 04/14/14 10:35

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Dx		1.00	14D0115	04/23/14 10:38	MRS	TAL SPK
Total	Prep	EPA 3580		0.86	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 01:53	MRS	TAL SPK
Total	Prep	EPA 3050B		0.909	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:43	ICP	TAL SPK

Client Sample ID: 041414:SVDP-2:21

Lab Sample ID: SXD0112-11

Date Collected: 04/14/14 10:45

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.676	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		10.0	14D0092	04/18/14 16:40	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.676	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		10.0	14D0092	04/18/14 16:40	CBW	TAL SPK
Total	Prep	EPA 3580		0.870	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 15:21	MS	TAL SPK
Total	Prep	EPA 3550B		1.48	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/28/14 16:42	MRS	TAL SPK
Total	Prep	EPA 3550B		1.21	14D0115_P	04/22/14 15:35	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0115	04/23/14 11:00	MRS	TAL SPK
Total	Prep	EPA 3050B		1.08	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:57	ICP	TAL SPK

Client Sample ID: 041414:SVDP-3:7

Lab Sample ID: SXD0112-14

Date Collected: 04/14/14 11:30

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.832	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 17:02	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.832	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 17:02	CBW	TAL SPK
Total	Prep	EPA 3580		0.952	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 15:33	MS	TAL SPK
Total	Prep	EPA 3550B		0.994	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/28/14 17:03	MRS	TAL SPK
Total	Prep	EPA 3550B		0.939	14D0115_P	04/22/14 15:35	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0115	04/23/14 16:02	MRS	TAL SPK
Total	Prep	EPA 3580		0.90	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 02:19	MRS	TAL SPK
Total	Prep	EPA 3050B		1.02	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 19:00	ICP	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Client Sample ID: 041414:SVDP-5:19

Lab Sample ID: SXD0112-19

Date Collected: 04/14/14 14:30
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 82

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.765	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 17:25	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.765	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 17:25	CBW	TAL SPK
Total	Prep	EPA 3580		0.885	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 15:45	MS	TAL SPK
Total	Prep	EPA 3550B		0.987	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 14:40	MRS	TAL SPK
Total	Prep	EPA 3550B		0.996	14D0115_P	04/22/14 15:35	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0115	04/23/14 11:23	MRS	TAL SPK
Total	Prep	EPA 3580		0.97	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 02:44	MRS	TAL SPK
Total	Prep	EPA 3050B		1.00	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 19:04	ICP	TAL SPK

Client Sample ID: 041414:SVDP-6:18

Lab Sample ID: SXD0112-20

Date Collected: 04/14/14 15:20
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 75.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.773	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 17:47	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.773	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 17:47	CBW	TAL SPK
Total	Prep	EPA 3580		0.840	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 15:57	MS	TAL SPK
Total	Prep	EPA 3550B		0.984	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 15:01	MRS	TAL SPK
Total	Prep	EPA 3580		0.89	14D0104_P	04/21/14 10:00	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0104	04/21/14 15:03	MRS	TAL SPK
Total	Prep	EPA 3050B		0.962	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 19:07	ICP	TAL SPK

Laboratory References:

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0112

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-HCID	Hydrocarbon Identification by NWTPH-HCID		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
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 #: SXD0112

CLIENT: GeoEngineers

REPORT TO: jsugahshi@geoengineers.com

ADDRESS: 523 East Second Ave, Spokane, WA 99202

PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO: GeoEngineers Spokane

P.O. NUMBER: 0504-101-00

PROJECT NAME: Tiger 0,1 - Summitview

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

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	NWTPH-DX	8260B (VOCs)	8011 EDB	NWTPH-GX	8260 BTEX	EDC	MTBE	Naphthalene	NWTPH-HCID	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 0414:SVDP-1:3	4-14-2014 0830											S	2		
2 04/14/14:SVDP-1:8	0840											S	3		
3 04/14/14:SVDP-1:13.5	0850		X	X	X	X	X	X	X	X	X	S	3		
4 04/14/14:SVDP-1:17	0905											S	3		
5 04/14/14:SVDP-1:20	0920											S	3		
6 04/14/14:SVDP-1:GW	0945										X	W	1		
7 04/14/14:SVDP-2:3	1005											S	2		
8 04/14/14:SVDP-2:7	1015											S	2		
9 04/14/14:SVDP-2:12	1025											S	2		
10 04/14/14:SVDP-2:19	1035		X	X	X	X	X	X	X	X	X	S	3		

RELEASED BY: [signature] DATE: 4-17-14

PRINT NAME: Josh Lee FIRM: Geo TIME: 1300

RECEIVED BY: Cat Stapleton DATE: 4-17-14

PRINT NAME: Cat Stapleton FIRM: TA TIME: 1300

RELEASED BY: DATE:

PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:

PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 12.7 PAGE 1 OF 2

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
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 #: SKN0112

CLIENT: GeoEngineers

REPORT TO: jsaglahi@geoengineers.com

ADDRESS: 523 E Second Ave Spokane, WA 99202

PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO: GeoEngineers Spokane

P.O. NUMBER: 0504-101-00

PROJECT NAME: Tiger Oil - Summit view

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

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 Dx	PAH	PCB's EDB	NWTPH GX 8260 BTEX	EDC	MTBE	Naphthalene	NWTPH HCID	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 04/14/14:SVDP-2:21	4-14-2014 1045	X	X	X	X	X	X	X	X	S	3		
2 04/14/14:SVDP-2:GW	1100								X	W	1		
3 04/14/14:SVDP-3:2	1120									S	2		
4 04/14/14:SVDP-3:7	1130	X	X	X	X	X	X	X	X	S	2		
5 04/14/14:SVDP-3:12	1135									S	2		
6 04/14/14:SVDP-3:18	1140									S	2		
7 04/14/14:SVDP-3:23	1155									S	2		
8 04/14/14:SVDP-4:19	1340	X	X	X	X	X	X	X	X	S	3		
9 04/14/14:SVDP-5:19	1430	X	X	X	X	X	X	X	X	S	3		
10 04/14/14:SVDP-6:18	1520	X	X	X	X	X	X	X	X	S	3		

RELEASED BY: PRINT NAME: Josh Lee FIRM: GeoEngineers DATE: 4-17-14 TIME: 1300

RECEIVED BY: PRINT NAME: Ed Stapleton FIRM: TestAmerica DATE: 4-17-14 TIME: 13:00

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

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

ADDITIONAL REMARKS:

TEMP: 12.1 PAGE 2 OF 2

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXD0112	Client: GeoEngineers	Project: Tiger Oil
Date/Time Received: 4-17-14	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:	Y			
Custody Seals are present and intact:			6	
Are CoC documents present:	Y			
Necessary signatures:	Y			

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

Temperature: 12.7 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

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

Log-in Phase Date/Time: 4-17-14 15:30 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)	Y			
Are dissolved parameters field filtered			Y	
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis			Y	
Are there any short hold time tests (see chart below)		Y		
Are any samples within 2 days of or past expiration		Y		
Was the CoC scanned	Y			
Were there Non-conformance issues at login		Y		
If yes, was a CAR generated #			Y	

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

Form No. SP-FORM-SPL-002 12 December 2012

APPENDIX C
Well Survey Report

TIGER OIL MONITORING WELL ELEVATION TABLE YAKIMA, WA			SURVEY DATE 8/27/2014	PLS JOB NO. 14079
FEATURE	NORTH EDGE OF PVC ELEVATION	NORTH RIM OF OUTER CASE ELEVATION	NORTHING	EASTING
SUMMITVIEW				
SVMW-1	1,220.95	1,221.23	462054.5	1619556.5
SVMW-2	1,215.59	1,215.91	461870.0	1619606.4
SVMW-3	1,218.38	1,218.67	461949.3	1619606.4
BENCHMARK ELEVATION = 1219.58'	SW CORNER OF TRAFFIC SIGNAL POLE CONCRETE PAD AT THE NE CORNER OF SUMMITVIEW AVE. AND N. 56TH AVE AT N. END OF CONCRETE WALK		461957.6	1619548.4
VERTICAL DATUM:	NAVD 88 - REFERENCED FROM WSDOT MONUMENT DESIGNATION GP39012-9, WITH A PUBLISHED ELEVATION OF 1,130.33 FEET.			
HORIZONTAL DATUM:	NAD 83/91 WASHINGTON SOUTH ZONE - BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.			

The horizontal coordinates of the groundwater monitoring wells and the elevation of the benchmark established at the site were determined using a Topcon GR-3 GPS receiver with a nominal accuracy of 10mm + 1ppm horizontal and 15mm + 1ppm vertical. The elevation of the monitoring wells are relative to the benchmark established at the site and were individually determined using a Leica DNA03 digital level with a vertical accuracy of +/- 0.01 feet.

APPENDIX D
Report Limitations and Guidelines for Use

APPENDIX D
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

GeoEngineers has performed this assessment of the Tiger Oil – Summitview site in Yakima, Washington in general accordance with the Work Plan dated April 15, 2014. This report has been prepared for the exclusive use of the Washington Department of Ecology. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an Environmental Site Assessment (ESA) 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 property. No one except the Washington Department of Ecology should rely on this environmental report without first conferring with GeoEngineers. Use of this report is not recommended 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 Tiger Oil – Summitview site in Yakima, 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, it is important not to 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 to the project or property after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm 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

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

have been executed in accordance with our Agreement with the Client 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 vicinity of the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, 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 substances, change or if more stringent environmental standards are developed in the future.

Uncertainty May Remain Even After This Phase II ESA is Completed

Performance of a Phase II ESA is intended to reduce uncertainty regarding the potential for contamination in connection with a property, but no ESA can wholly eliminate that uncertainty. 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 man-made events such as construction on or adjacent to the subject property, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying this report for its intended purpose so that GeoEngineers may evaluate whether changed conditions affect the continued applicability of the report.

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 properties or for other on-site uses of the affected soil and/or groundwater. Note that hazardous substances may be present in some of the on-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 property or reuse of the affected soil or groundwater on-site to evaluate the potential for associated environmental liabilities. We are unable to assume responsibility for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject property to another location or its reuse on-site in instances that we did not know 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 subject property. 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 informed opinion about subsurface conditions throughout the property. 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 reproduction is acceptable, but separating logs from the report can create a risk of misinterpretation.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be 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 need to know more about how these "Report Limitations and Guidelines for Use" apply to your project or property.

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.

A Client that desires these specialized services is advised to obtain them 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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www.geoengineers.com

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