Groundwater Well Installation and Groundwater Monitoring Report

Roby's Station
Buena, Washington

for
Washington State Department of Ecology

June 4, 2013

GeoEngineers
Earth Science + Technology

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GeoEngineers

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ACRONYM LIST

APHA	American Public Health Association
ASTM	ASTM International
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
COC	contaminants of concern
cm/s	centimeters per second
DO	dissolved oxygen
DRPH	diesel-range petroleum hydrocarbons
Ecology	Washington State Department of Ecology
EDB	1,2-dibromoethane
EPA	Environmental Protection Agency
ev	electron volt
ft/ft	feet per foot
GRPH	gasoline-range petroleum hydrocarbons
LCS	laboratory control spike
ICV/CCV	initial calibration verification/continuing calibration verification
LLICV/LLCCV	low level initial calibration verification/low level continuing calibration verification
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mS/cm	milliSeimens per centimeter
MS	matrix spike
MSD	matrix spike duplicate
MTCA	Model Toxics Control Act
mV	millivolt
NTU	nephelometric turbidity units

ACRONYM LIST (CONTINUED)

ORP	oxygen reduction potential
ORPH	oil-range petroleum hydrocarbons
PCBs	polychlorinated biphenyls
PCE	tetrachlorethane
PID	photoionization detector
ppm	parts per million
PVC	polyvinyl chloride
Qa	Quaternary Age Alluviam
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
Qfs	Quarternary Age Outburst flood deposits
Qt	Quaternary Age Terrace deposits
RD	relative difference
RPD	relative percent difference
SAP	Sampling and Analysis Plan
Site	Roby's Station, Buena, Washington
SPT	standard penetration test
TD&H	Thomas, Dean and Hoskins
TestAmerica	TestAmerica Laboratories, Inc.
TOC	total organic carbons
µg/L	micrograms per liter
UST	underground storage tank
VOCs	volatile organic compounds
WAC	Washington Administrative Code

1.0 INTRODUCTION

This report describes supplemental groundwater monitoring well installation and groundwater monitoring activities conducted at the Roby's Station site located at the intersection of Buena Road and Burr Street in Buena, Washington (herein referred to as "site"). The site is located approximately as shown in the attached Vicinity Map, Figure 1.

Environmental activities at the site currently are managed by the Washington State Department of Ecology (Ecology). This report describes field activities, observations, and chemical analytical results associated with soil and groundwater samples collected at the site, and provides recommendations for further assessment. The purpose of the assessment activities described herein was to identify the extent of remnant contamination, primarily in shallow groundwater beneath the site, if any, associated with operation of fueling underground storage tanks (USTs), associated product piping and dispensers formerly located on site, following completion of interim remedial action cleanup activities conducted at the site in November 2012. A discussion regarding the interim remedial action activities is presented in a draft report by GeoEngineers titled "Remedial Action Report, Roby's Station, Buena, Washington," dated March 6, 2013.

2.0 SITE DESCRIPTION AND BACKGROUND

2.1. Property Description

The site is located on the west corner of the intersection of Buena Road and Burr Street in Buena, Washington. The site is currently a vacant lot and is generally flat with a slight depression near the southern property boundary. Buena Road and Burr Street bound the property to the north and east, respectively. The adjacent property to the south is occupied by a fire station. The adjacent property to the west is occupied by the Buena post office. The general location of the site and the general site layout is depicted on Site Plan, Figure 2. Note that the most recent aerial imagery available for use is from early 2011, before demolition of the service station at the site.

2.2. Site History

Historically, Roby's site operated as a service station, though the exact dates of operation are unknown. Site features included the gas station structure, fueling USTs, associated product piping and dispensers located near the north portions of the property. A mobile home also was located south of the service station. Other site features located near the service station included a domestic production well, an approximately 300 gallon waste-oil UST, a drywell, and a hydraulic lift (located inside the service station).

Petroleum contamination was identified in 1993 at several sites within the town of Buena, including the Roby's site during the installation of underground sewer lines. Ecology conducted site assessment activities in Buena between 1997 and 1999, including installing 12 monitoring wells (MW-1 through MW-12) throughout the town. Four of these monitoring wells (MW-5 through MW-8) are located near Roby's site.

Former fuel USTs were reportedly closed in place in 1996 at the Roby's site. Petroleum contaminated soil was again identified on Roby's site during the removal of five USTs and

associated product lines and fuel dispensers in 2001. Results of chemical analytical testing indicated soil located near the USTs was contaminated with gasoline-range petroleum hydrocarbons (GRPH), diesel-range petroleum hydrocarbons (DRPH), and benzene, toluene, ethylbenzene and xylene (BTEX) compounds greater than Model Toxics Control Act (MTCA) Method A soil cleanup levels for unrestricted land use (unrestricted cleanup levels). The contaminated soil was placed back within the excavation following removal of the USTs.

GeoEngineers conducted site characterization activities at the site in 2010, including installing a groundwater monitoring well (MW-15) near Roby's property. Results of laboratory analytical testing of groundwater samples obtained from monitoring well MW-15, located south (downgradient) of the property, indicated groundwater is contaminated with DRPH at concentrations greater than MTCA Method A cleanup levels. Results of analytical testing of groundwater samples collected from MW-15 during subsequent groundwater sampling events completed by Ecology in December 2010, March 2011, and June 2011 also indicated that groundwater downgradient from Roby's site is contaminated with GRPH, DRPH, heavy oil-range petroleum hydrocarbons (ORPH) and benzene at concentrations greater than MTCA Method A cleanup levels. Based on the groundwater sampling event in July 2010, groundwater flow direction appeared to be in a generally south-southeast direction under a gradient of about 0.005 feet per foot (ft/ft).

The gas station structure on Roby's property was demolished in October 2011. Removal of concrete floor slabs during demolition revealed stained soil. The domestic water well was abandoned during demolition and the drywell and hydraulic lift also were removed as part of the building demolition activities. Ecology previously removed the contents of the drywell; however, the drywell refilled with apparent petroleum-contaminated water and debris after each cleaning attempt. During the building demolition activities the contents of the waste oil tank were removed from the site and disposed. Chemical analysis of the waste oil tank contents by Ecology indicated the tank contained polychlorinated biphenyls (PCBs) and leachable lead. Qualitative field screening conducted by Ecology also indicated the waste oil tank contents contained chlorinated compounds. The site remained vacant since demolition and is still owned by the Roby family.

GeoEngineers conducted additional site investigation activities in November 2011, including groundwater sampling and advancing 18 direct-push soil borings on Roby's site. The supplemental investigation was conducted to assess the area surrounding the waste oil tank and former structure footprint, further delineate the extent of soil contamination near the former USTs and fuel dispenser locations, and investigate areas downgradient of the source area on Roby's property to define the extent of the petroleum contaminated plume. A total of 22 soil samples were collected and submitted for analytical testing from this investigation. GRPH, DRPH, ORPH, benzene, ethylbenzene, naphthalene, and lead were detected in soil samples at concentrations greater than their MTCA Method A unrestricted land use cleanup levels.

Remedial interim action activities were conducted at the Roby's site and neighboring Church site (located east of Roby's, southeast of the intersection of Buena Road and Burr Street) between about November 1 through November 16, 2012. Three Kings Environmental completed remedial excavation work. The remedial action was conducted to reduce the potential risk to human health and environment caused by contaminants of concern (COCs) contaminated vadose-zone soil at both the Roby's and Church sites and to initiate treatment of saturated soil and groundwater at

Roby's site by application of an oxygen releasing compound to enhance biological degradation of contaminants. Approximately 2,817.31 tons of debris and material containing COCs were excavated from the Roby's and Church sites and disposed off-site at Anderson Landfill in Yakima, Washington. This includes approximately 2,568.15 tons of soil and 122.51 tons of debris from Roby's site and 126.65 tons of soil from the Church site. Approximately 2,500 pounds of proprietary oxidant compound supplied by BioRemediation Specialists, LLC was applied to the open remedial excavation at Roby's before placement of imported backfill material. At the time of oxidant application, the bottom of the remedial excavation generally was about 4 feet below surrounding site grades, and was at least several inches below groundwater elevation.

Representative confirmation soil sample analytical results from Roby's site indicate soil with COC concentrations less than MTCA Method A cleanup levels was reached on all sides of the excavation except the southeast side, where the extent of the excavation was limited by trees and site utilities. The site was graded with a slight slope towards the center of the site to limit runoff. Oxidant injection galleries were constructed approximately perpendicular to the estimated groundwater flow direction to allow future oxidant application to further remediate groundwater and soil within the smear zone.

Confirmation soil sample analytical results from the Church site indicate soil with COC concentrations less than MTCA Method A cleanup levels was reached on all sides and base of the excavation except the west side, where the extent of the excavation was limited by the church building and site utilities. The site was graded to match the approximate site conditions before excavation began.

2.3. Geologic and Soil Conditions

The Washington Department of Natural Resources, "Geologic Map of the East Half of the Toppenish 1:100,000 Quadrangle, Washington" indicates that three geologic units are mapped near the site including: Quaternary Age Alluvium (Qa), Quaternary Age Terrace deposits (Qt) and Quaternary Age Outburst flood deposits, silt and sand (Qfs). Alluvium and Terrace deposits consist of silt, sand and gravel, deposited directly by the Yakima River. Alluvium is mapped in valley bottoms, while Terrace deposits are mapped along the margins of the valley bottom, extending about 15 to 30 feet above the current Yakima River flood plain. Outburst flood deposits consist of rhythmically bedded and graded slackwater (low-energy) deposits of silt, minor sand and gravel, deposited during outburst floods from glacial Lake Missoula.

Review of available water well reports on the Washington Department of Ecology on-line database indicates that deposits of gravel, sand, silt, and clay with cobbles extend to depths of at least 40 to 90 feet below ground surface (bgs) near the site. Several well reports indicate that sandstone is underlies overburden soil deposits at depths in the of about 50 to 90 feet bgs.

Soil boring logs from the installation of monitoring wells MW-1 through MW-25 located near and on the site indicate that gravel with sand and silt extend from ground surface to approximately 15 feet bgs. Some interbedded silt and/or clay was also observed in the borings.

2.4. Groundwater Conditions

Based on review of available water well reports and our explorations, a shallow aquifer is present below the site. Consistent with hydraulic conditions within the Yakima River Basin Aquifer System, the overall direction of groundwater flow near the site appears to be south. However, local variations in groundwater gradients and flow direction presumably as a result of local recharge/discharge conditions also have been observed. The saturated hydraulic conductivity values calculated from slug tests by GeoEngineers in 2010 ranged between about 0.03 and 0.04 centimeters per second (cm/s). Groundwater elevation and flow directions might vary seasonally and could be affected by seasonal irrigation practices.

3.0 SCOPE OF SERVICES

GeoEngineers prepared a Draft Remedial Action Report dated March 6, 2013 based on site environmental activities performed to date (GeoEngineers, 2013). The Remedial Action Report recommended installation of additional groundwater monitoring wells and continued groundwater sampling as well as monitoring of natural attenuation parameters in groundwater.

3.1. Groundwater Monitoring Well Installation

Four new groundwater monitoring wells were installed on February 18 and 19, 2013, during which the following scope of services was performed by GeoEngineers:

- Constructed four groundwater monitoring wells within borings MW-22 through MW-25 at the approximate locations presented in Figure 2. Wells were constructed of 2-inch-diameter, Schedule 40, polyvinyl chloride (PVC) casing and well screens. Each well was completed with a bentonite seal and flush-mount surface monument. The concrete surface-seal was placed around the monument at the ground surface to divert surface water away from the well location. A lockable cap and lock were installed in the top of each PVC well casing.
- Collected soil samples from each monitoring well boring during construction and submitted soil samples to TestAmerica in Spokane Valley, Washington for chemical analysis. Samples were analyzed for:
    - GRPH using NWTPH-Gx;
    - DRPH and ORPH using NWTPH-Dx; and
    - Volatile organic compounds (VOCs) using Environmental Protection Agency (EPA) Methods 5035/8260C.
- Developed the monitoring wells using a combination of surging and bailing.
- Subcontracted a licensed surveyor to measure and record elevations and horizontal locations of the monitoring wells.

3.2. Groundwater Monitoring

Quarterly groundwater monitoring events were performed on November 2, 2012 (at the initiation of remedial excavation activities) and February 25, 2013 (following remedial excavation and new well installation activities), during which the following scope of services was performed by GeoEngineers:

3.2.1. November 2012

- Measured headspace vapor concentrations in site groundwater monitoring wells (MW-5 through MW-8 and MW-15).
- Measured the depth to groundwater in site groundwater monitoring wells.
- Collected groundwater samples from monitoring wells MW-5 through MW-8, and MW-15 using low-flow/low-stress sampling techniques. During well purging, water quality parameters (pH, conductivity, temperature, dissolved oxygen and reduction-oxidation potential) were monitored and recorded.
- Submitted groundwater samples to TestAmerica in Spokane Valley, Washington and TestAmerica, Richland, Washington for chemical analysis. Samples were analyzed for:
    - GRPH using NWTPH-Gx;
    - DRPH and ORPH using method NWTPH-Dx;
    - VOCs using EPA Method 8260C;
    - Total iron, manganese, chromium, and arsenic by EPA 6000/7000 Series methods;
    - Chromium III by American Public Health Association (APHA)/EPA Methods; and
    - Chromium VI by EPA Method 7196A.

3.2.2. February 2013

- Measured headspace vapor concentrations in site groundwater monitoring wells (MW-5 through MW-9, MW-15, and MW-22 through MW-25).
- Measured the depth to groundwater in each of the 10 site groundwater monitoring wells.
- Collected groundwater samples from monitoring wells MW-5 through MW-9, MW-15, and MW-22 through MW-25 using low-flow/low-stress sampling techniques. During well purging, water quality parameters (pH, conductivity, temperature, dissolved oxygen and reduction-oxidation potential) were monitored and recorded.
- Submitted groundwater samples to TestAmerica Laboratories, Inc. (TestAmerica) in Spokane Valley, Washington for chemical analysis. Samples were analyzed for:
    - GRPH using NWTPH-Gx;
    - DRPH and ORPH using method NWTPH-Dx;
    - VOCs using EPA Method 8260C;
    - Lead by EPA 6010/7000 Series methods;
    - Total organic carbon (TOC) by EPA Method 415.1; and
    - Nitrate and Sulfate by EPA Method 300.0.

4.0 FIELD ACTIVITIES

4.1. Monitoring Well Installation, Development, and Surveying

Four monitoring wells, designated MW-22 through MW-25, were installed and developed between February 18 and February 20, 2013 at the approximate locations presented in Figure 2. The well

borings were advanced using a truck-mounted, hollow-stem auger drill rig owned and operated by GeoEngineers. Samples of soil encountered in the borings were collected using a standard split-barrel (SPT) sampler. Select samples were submitted to the TestAmerica in Spokane Valley, Washington for analytical testing. Well locations and elevations were surveyed by a licensed surveyor from Thomas, Dean & Hoskins (TD&H) of Spokane, Washington on March 5, 2013. Detailed descriptions of the field procedures are presented in Appendix A.

4.2. Groundwater Monitoring

4.2.1. Groundwater Elevations and Monitoring Well Headspace Vapor

4.2.1.1. GENERAL

Depths to groundwater in site monitoring wells were measured relative to the top of the north side of the well casing. Depth to groundwater measurements were used to calculate groundwater elevations for each event and interpreted groundwater flow direction for the February 2013 event.

Monitoring well headspace vapors were measured during the November 2012 and February 2013 events using a photoionization detector (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.

Groundwater depths and elevations are presented in Summary of Groundwater Level Measurements, Table 1. Groundwater elevation data for the November 2012 monitoring event are presented in Groundwater Elevations November 2, 2012, Figure 3. Groundwater elevation data, approximate groundwater elevation contours, and interpreted flow direction for the February 2013 monitoring event are presented in Groundwater Elevation and Interpreted Flow Direction, February 25, 2013, Figure 4. Field methods are described in Appendix A.

4.2.1.2. NOVEMBER 2012

Depths to groundwater insite monitoring wells were measured on November 2, 2012. Depths to groundwater ranged from 5.70 feet in MW-15 to 6.71 feet in MW-7. Corresponding groundwater elevations ranged from about 786.99 feet in MW-7 to 788.08 feet in MW-5. Groundwater elevations measured at the monitoring wells are graphically presented in Figure 3.

Headspace vapor concentrations were measured at 0.0 parts per million (ppm) in all site wells (MW-5 through MW-8 and MW-15).

4.2.1.3. FEBRUARY 2013

Depth to groundwater in site monitoring wells were measured on February 25, 2013. Depths to groundwater ranged from 2.90 feet in MW-15 and MW-24 to 4.30 feet in MW-23. Corresponding groundwater elevations ranged from about 786.89 feet in MW-9 to 790.91 feet in MW-22. Groundwater elevation contours, presented in Figure 4, were estimated using the computer program Surfer and suggest groundwater flow in the unconfined aquifer beneath the site generally is toward the south-southwest, with localized flow to the northwest and southeast in the southern part of the site. The groundwater elevation distribution suggests a complex flow regime exists at the site, characterized by a groundwater mound located generally within the area of the remedial excavation. The calculated elevation contours also suggest a groundwater depression is located

near monitoring well MW-7. These complexities suggest that the groundwater elevation distribution at the site is influenced by local discharge and recharge.

During initial remedial excavation activities at Roby's in November 2012, water was observed to be flowing into the north side of the excavation at an elevation above the groundwater table. Further excavation revealed a concrete irrigation pipe, oriented parallel to Buena Road. At the time of excavation activities, the pipe was leaking and discharging water into the excavation. Yakima County was notified and county personnel repaired observable leaks within the exposed portion of the pipe. However, it is possible that other unknown leaks could transmit water along the pipe backfill, which could then collect within the more permeable gravel backfill within the remedial excavation, creating a groundwater mound within the remedial excavation. While a uniform gradient is presented between monitoring well MW-24 and MW-7 in Figure 4, it is possible there is a steeper hydraulic gradient at the boundary of the remedial excavation, and that the hydraulic gradient between the wells within undisturbed portions of the shallow aquifer more closely resembles natural conditions.

Evidence also suggests that the groundwater elevation at well MW-15 could be mounded by artificial recharge. Monitoring well MW-15 is located near a sanitary sewer line. Information provided by Ecology indicates that the sewer line runs south from its upstream end near the north end of Burr Street. During groundwater monitoring events, a distinct "sewer smell" has been observed each time the well cap has been removed. Additionally, water collected from the well is usually black. Results of analytical laboratory testing from the February event indicate that the TOC content of the groundwater sample from MW-15 was significantly higher than the TOC content measured in groundwater samples from the other site wells. This suggests that there could be a leak in the sewer line, which is resulting in an artificial mound within utility trench backfill. While Figure 4 depicts a groundwater depression at MW-7, it is possible that groundwater flow within undisturbed portions of the site near MW-7 generally is towards the south, with a groundwater mound situated within the utility trench for the sewer line.

Headspace vapor concentrations were measured at 13.7 ppm in MW-15 and 19.8 ppm in MW-22. Headspace vapor concentrations for the remaining site wells (MW-5 through MW-9 and MW-23 through MW-25) were 0.0 ppm.

4.2.2. Groundwater Quality Monitoring

4.2.2.1. GENERAL

Monitoring wells were purged and sampled during the November 2012 and February 2013 events using standard low-flow sampling methodology. A peristaltic pump and dedicated tubing was used to purge and sample each well. Groundwater water quality parameters generally were measured at 3-minute intervals during well purging. Groundwater samples were collected when each water quality parameter had stabilized in conformance with the criteria presented in Appendix A. Monitoring wells MW-5 through MW-8 and MW-15 were sampled during the November 2012 event. Monitoring wells MW-5 through MW-9, MW-15, and MW-22 through MW-25 were sampled during the February 2013 event. Groundwater samples were submitted to TestAmerica for analysis using the methods described in "Section 3.2"; chemical analytical results are discussed in "Section 4.2.3".

Purge water generated during groundwater sampling was drummed, labeled and stored on the north and east sides of the site pending analytical results for profiling and disposal

5.0 CHEMICAL ANALYTICAL RESULTS

5.1. Soil Chemical Analytical Results

Soil samples were collected on February 18 and 19, 2013 from borings MW-22 through MW-25. Soil samples were submitted to TestAmerica in Spokane Valley, Washington for the chemical analysis described in "Section 3.1". TestAmerica's laboratory report is included in Appendix B. Chemical analytical results are tabulated and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results - Soil, Table 2.

Soil analytical results for the project contaminants of concern for the submitted soil samples are summarized by the following:

- GRPH was detected in sample MW-22(6.5) at a concentration of 134 milligrams per kilogram (mg/kg), which is greater than the unrestricted cleanup level of 30 mg/kg (when benzene is detected). GRPH was not detected or was detected at concentrations less than the unrestricted cleanup level in the other soil samples.
- DRPH and ORPH were not detected in any samples at concentrations greater than their unrestricted cleanup levels.
- Benzene was detected in sample MW-22(6.5) at a concentration of 0.690 mg/kg, which is greater than the unrestricted cleanup level of 0.03 mg/kg. Benzene was not detected in the other soil samples.
- Ethylbenzene, m,p xylene, and naphthalene were detected at concentrations less than their unrestricted cleanup levels in sample MW-22(6.5). These VOCs were not detected in the other soil samples.
- Iso-propylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, p-isopropyl toluene, and n-butyl benzene were detected in sample MW-22(6.5) at concentrations of 0.594, 1.06, 2.04, 6.78, 0.579, and 0.527 mg/kg, respectively. These VOCs do not have established unrestricted cleanup levels, and were not detected in the other soil samples.
- Methylene chloride was detected in sample MW-24(5.5) at a concentration less than the unrestricted cleanup level. However, methylene chloride also was detected in the laboratory-prepared method blank sample. Methylene chloride is a common laboratory-used solvent/cleaner. The positive result for methylene chloride from the sample from MW-24 was qualified as estimated based on the positive result in the method blank. Methylene chloride was not detected in the other soil samples.

5.2. Groundwater Chemical Analytical Results

5.2.1. November 2012

Groundwater samples were collected on November 2, 2012 from monitoring wells MW-5 through MW-8 and MW-15. Groundwater samples were submitted to TestAmerica for the chemical

analyses described in "Section 3.2". TestAmerica's laboratory report is included in Appendix B. Chemical analytical results are tabulated and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results - Groundwater, Table 3.

Groundwater analytical results for November 2012 monitoring event are summarized by the following:

- GRPH was not detected in any of the groundwater samples.
- Carbon disulfide, acetone, tetrachloroethene, and p-Isopropyl toluene were detected in the sample from MW-15 at concentrations of 1.31, 33.4, 2.95, and 26.8 micrograms per liter (µg/L), respectively. These VOCs do not have established MTCA Method A cleanup levels. VOCs were not detected in the groundwater samples from MW-5 through MW-8.
- Vinyl chloride was detected at a concentration of 1.68 µg/L in the sample from MW-15, which is greater than the MTCA Method A cleanup level of 0.2 µg/L.
- DRPH and ORPH were detected at concentrations of 2.42 and 2.05 milligrams per liter (mg/L), respectively, in the sample from MW-8. These concentrations are greater than the MTCA Method A cleanup level of 0.5 mg/L. DRPH and ORPH were not detected in the samples collected from the remaining monitoring wells.
- Total arsenic, total chromium and chromium III were not detected.

5.2.2. February 2013

Groundwater samples were collected on February 25, 2013 from monitoring wells MW-5 through MW-9, MW-15, and MW-22 through MW-15. Groundwater samples were submitted to TestAmerica for the chemical analyses described in "Section 3.2". TestAmerica's laboratory report is included in Appendix B. Chemical analytical results are tabulated and compared to MTCA Method A cleanup levels in Table 3.

Groundwater analytical results for the February 2013 monitoring event are summarized by the following:

- DRPH and ORPH were detected at concentrations of 7.55 and 7.88 mg/L, respectively, in the sample from MW-15. These concentrations are greater than the MTCA Method A cleanup level of 0.5 mg/L. The sample from MW-15 was analyzed a second time using NWTPH-Dx with silica gel cleanup; DRPH and ORPH were detected at concentrations of 1.19 and 1.43 mg/L, respectively, which also are greater than the MTCA Method A cleanup level.
- DRPH and ORPH were not detected in the samples collected from the remaining site monitoring wells.
- Tetrachloroethene (PCE) was detected in the groundwater sample from MW-15 at a concentration of 6.58 µg/L, which exceeds the MTCA Method A cleanup level.
- GRPH was detected in the samples from MW-15 and MW-24 at concentrations less than the MTCA Method A cleanup level.
- VOCs were not detected in the groundwater samples collected from MW-5, MW-6, MW-8, MW-9, MW-22, and MW-25.

- Benzene was detected in the samples from MW-7, MW-23, and MW-24 at concentrations less than the MTCA Method A cleanup level.
- Carbon disulfide, acetone, and p-Isopropyl toluene were detected in the sample from MW-15 at concentrations of 3.05, 51.3, and 25.9 µg/L, respectively. These VOCs do not have established MTCA Method A cleanup levels.
- Ethylbenzene, total xylenes, and naphthalene were detected in the sample from MW-24 at concentrations of 1.19, 31.1, and 4.79 µg/L, respectively, which are less than the MTCA Method A cleanup levels.
- 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene were detected in the sample from MW-24 at concentrations of 2.69 and 10.5 µg/L, respectively. These VOCs do not have established MTCA Method A cleanup levels.
- Total lead was not detected in the groundwater samples.

5.3. Natural Attenuation Parameters

5.3.1. November 2012

Dissolved oxygen (DO), temperature, specific conductivity, pH and oxygen reduction potential (ORP) were measured in the field using a calibrated Troll 9500 multi-parameter meter equipped with a flow-through cell. Field measurement results are provided in Summary of Field-Measured Natural Attenuation Parameters, Table 4. Reported field parameters reflect stabilized conditions at the conclusion of well purging during low-flow sampling.

Field results for natural attenuation parameters are summarized by the following:

- DO ranged from 0.00 mg/L in MW-5, MW-7, and MW-15 to 0.02 mg/L in MW-8.
- Temperature ranged from 15.72 degrees Celsius in MW-8 to 18.99 degrees Celsius in MW-6.
- Specific conductivity ranged from 0.4107 milliSiemens per centimeter (mS/cm) in MW-5 to 0.8940 mS/cm in MW-15.
- pH ranged from 6.93 in MW-6 to 7.04 in MW-8.

ORP ranged from -307 millivolt (mV) in MW-15 to 163 mV in MW-6. Concentrations of iron and manganese also were measured in groundwater samples collected from site monitoring wells. Results are presented in Table 3.

- Iron was detected in MW-5, MW-7 and MW-15 at concentrations of 3.71, 3.90 and 0.339 mg/L respectively. Total manganese was detected in all site wells at concentrations ranging from 0.0581 to 2.04 mg/L.

5.3.2. February 2013

In addition to the contaminants of concern, groundwater samples from the February 2013 event were analyzed for natural attenuation parameters. Concentrations of the following natural attenuation parameters were analyzed in the laboratory by TestAmerica: nitrate, sulfate, and total organic carbon. Laboratory results are provided in Table 3.

DO, temperature, specific conductivity, pH and ORP were measured in the field using a calibrated Troll 9500 multi-parameter meter equipped with a flow-through cell. Field measurement results are provided in Table 4. Reported field parameters reflect stabilized conditions at the conclusion of well purging during low-flow sampling.

Field and laboratory analytical results for natural attenuation parameters are summarized by the following:

- DO ranged from 0.00 mg/L in MW-5, MW-7, MW-9, MW-15, and MW-23 to 6.14 mg/L in MW-22.
- Temperature ranged from 6.84 degrees Celsius in MW-24 to 13.25 degrees Celsius in MW-7.
- Specific conductivity ranged from 0.3334 mS/cm in MW-22 to 0.8524 mS/cm in MW-15.
- pH ranged from 7.26 in MW-23 to 9.23 in MW-15.
- ORP ranged from -300 mV in MW-15 to 83 mV in MW-9.
- Nitrate-Nitrogen was detected in monitoring wells MW-5, MW-6, MW-8, MW-9, MW-15, and MW-22 through MW-25 at concentrations ranging from 0.210 to 5.42 mg/L.
- Sulfate was detected in monitoring wells MW-5 through MW-9, MW-15, and MW-22 through MW-25 at concentrations ranging from 24.2 to 136 mg/L.
- TOC was detected in monitoring wells MW-5 through MW-9, MW-15, and MW-22 through MW-25 at concentrations ranging from 1.46 to 79.3 mg/L.

6.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

6.1. Monitoring Well Installation and Soil Assessment

Monitoring well installation and soil assessment activities were conducted at the site on February 18 and 19, 2013. Four monitoring wells, designated MW-22 through MW-25, were installed using hollow-stem auger drilling techniques. Soil samples were collected during well construction at approximate 5 foot depth intervals in each monitoring well boring. The monitoring wells were developed, and the horizontal locations and relative elevations of the top of well casing at each new monitoring well location were surveyed

6.2. Quarterly Groundwater Assessment

Quarterly groundwater monitoring events were conducted at the site on November 2, 2012 and February 25, 2013.

Depths to groundwater during the November 2012 event ranged from 5.70 feet in MW-15 to 6.71 feet in MW-7 and groundwater elevations ranged from about 786.99 feet in MW-7 to 788.08 feet in MW-5.

Depths to groundwater during the February 2013 event ranged from 2.90 feet in MW-15 and MW-24 to 4.30 feet in MW-23. Groundwater elevations ranged from about 786.89 feet in MW-9 to 790.91 feet in MW-22. Relative to the November 2012 event, groundwater elevations in site wells

MW-5 through MW-8 increased on average about 2.58 feet. The observed increase in site groundwater elevation is interpreted to reflect an increase in precipitation and groundwater recharge typical of winter in south central Washington.

The groundwater elevations measured at MW-15 between the November 2012 event and the February 2013 event increased 2.80 feet, approximately 0.22 feet more than the average of the other wells. Based on this discrepancy and the other evidence previously noted, it is possible that MW-15 is influenced by artificial recharge related to the nearby sewer line. Also, as previously noted, groundwater elevations measured in recently installed wells (MW-22 and MW-24) located within the remedial excavation, also could be influenced by artificial recharge.

6.3. Chemical Analytical Results and Contaminant Distribution

6.3.1. Soil

GRPH and benzene were detected in sample MW-22(6.5) at concentrations greater than the MTCA Method A unrestricted cleanup level. Other contaminants of concern either were not detected or were detected at concentrations less than MTCA Method A cleanup levels in soil samples which were tested.

6.3.2. Groundwater

6.3.2.1. NOVEMBER 2012

During the November 2012 quarterly groundwater monitoring event:

- DRPH and ORPH were detected at concentrations greater than the MTCA Method A cleanup level in the sample from MW-8.
- DRPH and ORPH were not detected in samples collected from the remaining monitoring wells.
- Vinyl chloride was detected at a concentration greater than the MTCA Method A cleanup level in the sample from MW-15; it was not detected in samples for other site wells.
- PCE also was detected in the groundwater sample from MW-15 at a concentration less than the MTCA Method A cleanup level.
- Other contaminants of concern either were not detected or were detected at concentrations less than MTCA Method A cleanup levels in the remaining groundwater samples.
- The reporting limits for methylene chloride and 1,2-dibromoethane (EDB) were greater than the applicable MTCA Method A cleanup levels. These analytes have not been detected during previous sampling events.

6.3.2.2. FEBRUARY 2013

During the February 2013 quarterly groundwater monitoring event:

- PCE was detected in the groundwater sample from MW-15 at a concentration greater than the MTCA Method A cleanup level.
- VOCs were not detected in the samples from MW-5, MW-6, MW-8, MW-9, MW-22, and MW-25.
- Benzene was detected in the groundwater samples from MW-7, MW-22 and MW-24 at concentrations less than the MTCA Method A cleanup level.

- Other VOCs also were detected in the groundwater sample from MW-24 at concentrations less than the MTCA Method A cleanup level.
- DRPH and ORPH were detected at concentrations greater than the MTCA Method A cleanup level in the sample from MW-15 using both NWTPH-Dx and NWTPH-Dx with silica gel cleanup methods.
- DRPH and ORPH were not detected in the samples collected from the remaining site monitoring wells.
- Other contaminants of concern either were not detected or were detected at concentrations less than MTCA Method A cleanup levels in groundwater samples obtained from site wells.

6.4. Natural Attenuation Processes

A qualitative assessment of the potential for biodegradation of contaminants at a site can be completed by evaluating certain geochemical parameters of groundwater samples collected from monitoring wells located within a source area, and comparing those results with the results of similar analyses from groundwater samples collected from upgradient and downgradient wells. At this site, upgradient wells (relative to previously identified petroleum contamination on Roby's property and the extent of the remedial excavation) include MW-5, MW-6 and MW-8. Monitoring wells located within the source area include wells MW-22 and MW-24. Downgradient monitoring wells include wells MW-7 and MW-23. Well MW-7 is located approximately 75 feet south of the south portions of the remedial excavation. Well MW-23 is located immediately adjacent to the west edge of the remedial excavation. Because of the presence of contaminants detected in monitoring well MW-15 which have not been detected in other site wells, the results of groundwater elevation measurements and results of other laboratory analyses, well MW-15 was not considered as a representative downgradient well.

The natural attenuation data available at this date suggests that most of the area underlying the town of Buena is in a reducing (anaerobic) zone. This conclusion is based on the low DO and negative ORP values observed in wells located throughout the town.

A summary of selected natural attenuation parameters measured during the February 2013 monitoring event are presented in Table 5.

TABLE 5. NATURAL ATTENUATION SUMMARY - FEBRUARY 2013 MONITORING EVENT

Well Location	Well Number	ORP (mV)	DO (mg/L)	Nitrates (mg/L)	Sulfates (mg/L)
Upgradient	MW-5	-43	0.00	0.230	24.2
	MW-6	-8	0.03	1.73	37.6
	MW-8	33	0.01	0.510	32.1
Source Area	MW-22	59	6.14	2.05	35.2
	MW-24	-4	2.30	5.42	101
Downgradient	MW-7	-120	0.00	ND	136
	MW-23	-158	0.00	ND	39.3

Results from field measurements indicate that application of oxidant to the remedial excavation at Roby's in November 2012 has increased ORP and DO levels to above those measured in upgradient and downgradient wells. Nitrate concentrations measured in groundwater samples from MW-22 and MW-24 also are higher than measured in upgradient and downgradient wells. These results indicate that there is residual oxygen available within the remedial excavation for at least a limited amount of time for aerobic biodegradation of petroleum contaminants in groundwater within the source area at Roby's. The results also suggest that near the downgradient edge of the remedial excavation (MW-23) the available oxygen is quickly exhausted, and the aquifer reverts to anaerobic conditions.

Results from the February 2013 monitoring event also suggest that outside of the source area which has been treated with oxidant, nitrates have been consumed as an available electron receptor. Sulfate concentrations suggest that anaerobic biodegradation mechanisms have not progressed to utilization of sulfates.

Results of analytical testing for iron and manganese during the November 2012 monitoring event and previous monitoring events completed by GeoEngineers and Ecology in 2010 and 2011 indicate that concentrations of manganese in groundwater samples collected from downgradient well MW-7 were higher than manganese concentrations collected in groundwater samples from upgradient wells MW-5, MW-6 and MW-8. A pattern with regard to concentrations of iron relative to downgradient and upgradient wells was not present. These results suggest that prior to application of oxidant within the source area, anaerobic biodegradation mechanisms had progressed to utilization of manganese as an electron receptor.

6.5. Interpretation

Results of the soil and groundwater samples indicate that petroleum contamination remains at the Roby's site. However, results from the February 2013 monitoring event suggest that remedial activities have reduced the concentration of petroleum contaminants in groundwater within the area of the remedial excavation to below cleanup levels.

Results of soil and groundwater samples collected from well MW-25, located downgradient of the remedial excavation at the adjacent Church property, indicate that petroleum-contaminated groundwater is not present at the Church property, downgradient of the remedial excavation completed on the Church property.

The results of analytical analyses of groundwater samples from well MW-15 suggest that the contaminants detected in the samples from MW-15 could be from a source other than Roby's. This is because vinyl chloride and PCE have not been detected in soil and groundwater samples collected from borings and wells located upgradient of MW-15, including those at Roby's. Additionally, the concentrations of ORPH and DRPH measured in the samples from MW-15 are significantly higher than concentrations of these contaminants from other site wells, and were not detected in groundwater samples collected from well MW-7, which is located between Roby's and well MW-15. Data collected from natural attenuation field measurements and analysis indicate the shallow aquifer beneath the site is in a reducing (anaerobic) zone. The introduction of oxidants to the remedial excavation results in aerobic conditions within the backfill which rapidly revert back to anaerobic conditions downgradient of the remedial excavation.

6.6. Recommendations

We recommend that additional groundwater sampling events be completed to evaluate the potential for "rebound" of contaminant concentrations in groundwater following application of oxidant to the remedial excavation at Roby's. We also recommend continued analyses of natural attenuation parameters. Following the next sampling event, analytical data and natural attenuation parameters should be evaluated to assess the appropriateness of additional injections of oxidant at Roby's to remove residual petroleum contamination. Our next scheduled groundwater sampling event is in late April 2013.

We also recommend providing Yakima County with results of analytical laboratory data and other evidence which indicates a possible leak in the sewer line located in Burr Street.

7.0 LIMITATIONS

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

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

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

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

8.0 REFERENCES

GeoEngineers, Inc., November 23, 2011, "Work Plan, Interim Action (Data Gap Investigation)", Roby's Project, Buena, Washington. GEI File No. 0504-060-02.

GeoEngineers, Inc., March 6, 2013, "Remedial Action Report", Roby's Station, Buena, Washington. GEI File No. 0504-060-02.

Puls, R. W. and M. J. Barcelona. 1996. "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures," EPA Ground Water Issue, pp.1-9.

U.S. Environmental Protection Agency, Region 1. 1996. "Low Stress (Low-Flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells." EPA SOP No. GW 0001, Revision No. 2..

TABLES

GeoEngineers

Table 1

Summary of Groundwater Level Measurements

Roby's Station
Buena, Washington

Well Number	Top of Casing Elevation[1] (feet)	Date Measured	Monitoring Well Headspace[2] (ppm)	Depth to Groundwater[3] (feet)	Groundwater Elevation[1] (feet)	Change in Groundwater Elevation (feet)
MW-5	794.09	11/02/12	0.0	6.01	788.08	--
		02/25/13	0.0	3.44	790.65	2.57
MW-6	794.38	11/02/12	0.0	6.33	788.05	--
		02/25/13	0.0	3.70	790.68	2.63
MW-7	793.70	11/02/12	0.0	6.71	786.99	--
		02/25/13	0.0	4.17	789.53	2.54
MW-8	794.26	11/02/12	0.0	6.26	788.00	--
		02/25/13	0.0	3.68	790.58	2.58
MW-9	789.89	02/25/13	0.0	3.00	786.89	--
MW-15	792.86	11/02/12	0.0	5.70	787.16	--
		02/25/13	13.7	2.90	789.96	2.80
MW-22	794.19	02/25/13	19.8	3.28	790.91	--
MW-23	794.69	02/25/13	0.0	4.30	790.39	--
MW-24	793.79	02/25/13	0.0	2.90	790.89	--
MW-25	792.39	02/25/13	0.0	3.01	789.38	--

Notes:

[1]Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88). Wells were surveyed by Thomas Dean and Hoskins (TD&H) in March 2013.

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

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

ppm = parts per million

https://projects.geoengineers.com/sites/0050406002/Draft/Feb 2013 GW report/[Robys Station GW_Soil Tables 1112_0213.xlsx]Table 1

Table 2

Summary of Chemical Analytical Results - Soil[1]

Roby's Station

Buena, Washington

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name (Depths) and Sample Date			
				MW-22 (6.5) 02/18/13	MW-24 (5.5) 02/19/13	MW-24 (10.5) 02/19/13	MW-25 (5.5) 02/19/13
TPH[3]	Gasoline-range hydrocarbons	mg/kg	100/30	**134**	ND	**14.6**	ND
TPH[4]	Diesel-range hydrocarbons	mg/kg	2,000	**74.4**	ND	**30.4**	ND
TPH[4]	Heavy Oil-Range Hydrocarbons	mg/kg	2,000	**89.6**	ND	ND	ND
VOC[5]	Dichlorodifluoromethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Chloromethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Vinyl chloride	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Bromomethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Chloroethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Trichlolofluoromethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,1-Dichloroethene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Carbon disulfide	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Methylene chloride	mg/kg	0.02	ND	**0.133 (J)**	ND (J)	ND (J)
VOC[5]	Acetone	mg/kg	NE	ND	ND	ND	ND
VOC[5]	trans-1,2-Dichloroethene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Methyl tert-butyl ether	mg/kg	0.1	ND	ND	ND	ND
VOC[5]	1,1-Dichloroethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	cis-1,2-Dichloroethene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	2,2-Dichloropropane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Bromochloromethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Chloroform	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Carbon tetrachloride	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,1,1-Trichloroethane	mg/kg	2	ND	ND	ND	ND
VOC[5]	2-Butanone	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,1-Dichloropropene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Benzene	mg/kg	0.03	**0.690**	ND	ND	ND
VOC[5]	1,2-Dichloroethane (EDC)	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Trichloroethene (TCE)	mg/kg	0.03	ND	ND	ND	ND
VOC[5]	Dibromomethane	mg/kg	NE	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name (Depths) and Sample Date			
				MW-22 (6.5) 02/18/13	MW-24 (5.5) 02/19/13	MW-24 (10.5) 02/19/13	MW-25 (5.5) 02/19/13
VOC[5]	1,2-Dicloropropane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Bromodichloromethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	cis-1,3-Dichloropropene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Toluene	mg/kg	7	ND	ND	ND	ND
VOC[5]	4-Methyl-2-pentanone	mg/kg	NE	ND	ND	ND	ND
VOC[5]	trans-1,3-Dichloropropene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Tetrachloroethene (PCE)	mg/kg	0.05	ND	ND	ND	ND
VOC[5]	1,1,2-Trichloroethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Dibromochloromethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,3-Dichloropropane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,2-Dibromoethane	mg/kg	0.005	ND	ND	ND	ND
VOC[5]	2-Hexanone	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Ethylbenzene	mg/kg	6	**0.367**	ND	ND	ND
VOC[5]	Chlorobenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,1,1,2-Tetrachloroethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	m,p-Xylene	mg/kg	9[6]	**1.81**	ND	ND	ND
VOC[5]	o-Xylene	mg/kg	9[6]	ND	ND	ND	ND
VOC[5]	Styrene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Bromoform	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Isopropylbenzene	mg/kg	NE	**0.594**	ND	ND	ND
VOC[5]	n-Propylbenzene	mg/kg	NE	**1.06**	ND	ND	ND
VOC[5]	1,1,2,2-Tetrachloroethane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Bromobenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,3,5-Trimethylbenzene	mg/kg	NE	**2.04**	ND	ND	ND
VOC[5]	2-Chlorotoluene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,2,3-Trichloropropane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	4-Chlorotoluene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	tert-Butylbenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,2,4-Trimethylbenzene	mg/kg	NE	**6.78**	ND	ND	ND
VOC[5]	sec-Butylbenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	p-Isopropyltoluene	mg/kg	NE	**0.579**	ND	ND	ND
VOC[5]	1,3-Dichlorobenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,4-Dichlorobenzene	mg/kg	NE	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name (Depths) and Sample Date			
				MW-22 (6.5) 02/18/13	MW-24 (5.5) 02/19/13	MW-24 (10.5) 02/19/13	MW-25 (5.5) 02/19/13
VOC[5]	n-Butylbenzene	mg/kg	NE	**0.527**	ND	ND	ND
VOC[5]	1,2-Dichlorobenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,2-Dibromo-3-chloropropane	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Hexachlorobutadiene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	1,2,4-Trichlorobenzene	mg/kg	NE	ND	ND	ND	ND
VOC[5]	Naphthalene	mg/kg	5	**1.71**	ND	ND	ND
VOC[5]	1,2,3-Trichlorobenzene	mg/kg	NE	ND	ND	ND	ND

Notes:

[1]Chemical analyses conducted by TestAmerica Laboratories, Inc. located in Spokane Valley, Washington.

[2]Washington State, Model Toxics Control Act (MTCA) Method A cleanup levels

[3]Gasoline-range hydrocarbons were analyzed using NWTPH-Gx. The cleanup level is 30 mg/kg when benzene is detected and 100 mg/kg when benzene is not present.

[4]Diesel-range hydrocarbons and lube oil-range hydrocarbons were analyzed using NWTPH-Dx.

[5]Volatile organic compounds (VOC) were analyzed using EPA 8260C Methods.

[6]The MTCA Method A cleanup level for total xylenes is 9 mg/kg. This compound is a common laboratory solvent.

Bolding indicates the analyte was detected at a concentration greater than the reporting limit, but below the MTCA Method A Cleanup Level for Unrestricted Land Use

(J) Methylene chloride was detected in the Laboratory Method Blank. Positive results likely due to laboratory contamination.

mg/kg = milligrams per kilogram; ND = non detect; NT = not tested; TPH = total petroleum hydrocarbons; NE = not established

Indicates the detected concentration of an analyte was greater than the MTCA Method A cleanup level for Unrestricted Land Use

Indicates the reporting limit of a non-detected analyte exceeded the MTCA Method A Cleanup Level for Unrestricted Land Use

https://projects.geoengineers.com/sites/0050406002/Draft/Feb 2013 GW report/[Robys Station GW_Soil Tables 1112_0213.xlsx]Table 2

Table 3

Summary of Chemical Analytical Results - Groundwater[1]

Roby's Station
Buena, Washington

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date										
				MW-5-110212 11/02/12	MW-05-022513 02/25/13	MW-6-110212 11/02/12	MW-06-022513 02/25/13	MW-7-110212 11/02/12	MW-07-022513 02/25/13	MW-8-110212 11/02/12	MW-08-022513 02/25/13	MW-09-022513 02/25/13	MW-15-110212 11/02/12	MW-15-022513 02/25/13
TPH[3]	Gasoline-range hydrocarbons	µg/L	1,000/800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**105**
TPH[4]	Diesel-range hydrocarbons	mg/L	0.5	ND	ND	ND	ND	ND	ND	**2.42**	ND	ND	ND	**7.55**
TPH[5]	Diesel-range hydrocarbons	mg/L	0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	**1.19**
TPH[4]	Heavy Oil-Range Hydrocarbons	mg/L	0.5	ND	ND	ND	ND	ND	ND	**2.05**	ND	ND	ND	**7.88**
TPH[5]	Heavy Oil-Range Hydrocarbons	mg/L	0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	**1.43**
Metals[6]	Arsenic	mg/L	5	ND	NT	ND	NT	ND	NT	ND	NT	NT	ND	NT
Metals[6]	Chromium	mg/L	50	ND	NT	ND	NT	ND	NT	ND	NT	NT	ND	NT
Metals[6]	Iron	mg/L	NE	**3.71**	NT	ND	NT	**3.90**	NT	ND	NT	NT	**0.339**	NT
Metals[6]	Lead	mg/L	15	NT	ND	NT	ND	NT	ND	NT	ND	ND	NT	ND
Metals[6]	Manganese	mg/L	NE	**0.770**	NT	**1.34**	NT	**2.04**	NT	**0.158**	NT	NT	**0.0581**	NT
VOC[7]	Dichlorodifluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Chloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Vinyl chloride	µg/L	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.68**	ND
VOC[7]	Bromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Chloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Trichlolofluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,1-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Carbon disulfide	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.31**	**3.05**
VOC[7]	Methylene chloride	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Acetone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	**33.4**	**51.3**
VOC[7]	trans-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Methyl tert-butyl ether (MTBE)	µg/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,1-Dichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	cis-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	2,2-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Bromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Chloroform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Carbon tetrachloride	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,1,1-Trichloroethane	µg/L	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	2-Butanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,1-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Benzene	µg/L	5	ND	ND	ND	ND	ND	**0.380**	ND	ND	ND	ND	ND
VOC[7]	1,2-Dichloroethane (EDC)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Trichloroethene (TCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Dibromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2-Dicloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Bromodichloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	cis-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Toluene	µg/L	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	4-Methyl-2-pentanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	trans-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.95**	**6.58**
VOC[7]	1,1,2-Trichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Dibromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,3-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date										
				MW-5-110212 11/02/12	MW-05-022513 02/25/13	MW-6-110212 11/02/12	MW-06-022513 02/25/13	MW-7-110212 11/02/12	MW-07-022513 02/25/13	MW-8-110212 11/02/12	MW-08-022513 02/25/13	MW-09-022513 02/25/13	MW-15-110212 11/02/12	MW-15-022513 02/25/13
VOC[7]	1,2-Dibromoethane (EDB)	µg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	2-Hexanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Ethylbenzene	µg/L	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Chlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,1,1,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	m,p-Xylene	µg/L	1,000[10]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	o-Xylene	µg/L	1,000[10]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Styrene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Bromoform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Isopropylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	n-Propylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,1,2,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Bromobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,3,5-Trimethylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	2-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2,3-Trichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	4-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	tert-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2,4-Trimethylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	sec-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	p-Isopropyltoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	**26.8**	**25.9**
VOC[7]	1,3-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,4-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	n-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2-Dibromo-3-chloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Hexachlorobutadiene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2,4-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Naphthalene	µg/L	160	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	1,2,3-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Xylenes (total	µg/L	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GC[8]	Total Organic Carbon	mg/L	NE	NT	**9.91 (J)**	NT	**2.29 (J)**	NT	**2.96 (J)**	NT	**1.46 (J)**	**2.22 (J)**	NT	**79.3 (J)**
Anions[9]	Nitrate-Nitrogen	mg/L	NE	NT	**0.230**	NT	**1.73**	NT	ND	NT	**0.510**	**1.76**	NT	**0.210**
Anions[9]	Sulfate	mg/L	NE	NT	**24.2**	NT	**37.6**	NT	**136**	NT	**32.1**	**58.3**	NT	**3.77**

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date				
				MW-22-022513 02/25/13	MW-23-022513 02/25/13	MW-24-022513 02/25/13	MW-25-022513 02/25/13	Duplicate-1-022513 (MW-24) 02/25/13
TPH[3]	Gasoline-range hydrocarbons	µg/L	1,000/800	ND	ND	**239**	ND	**264**
TPH[4]	Diesel-range hydrocarbons	mg/L	0.5	ND	ND	ND	ND	ND
TPH[5]	Diesel-range hydrocarbons	mg/L	0.5	NT	NT	NT	NT	NT
TPH[4]	Heavy Oil-Range Hydrocarbons	mg/L	0.5	ND	ND	ND	ND	ND
TPH[5]	Heavy Oil-Range Hydrocarbons	mg/L	0.5	NT	NT	NT	NT	NT
Metals[6]	Arsenic	mg/L	5	NT	NT	NT	NT	NT
Metals[6]	Chromium	mg/L	50	NT	NT	NT	NT	NT
Metals[6]	Iron	mg/L	NE	NT	NT	NT	NT	NT
Metals[6]	Lead	mg/L	15	ND	ND	ND	ND	ND
Metals[6]	Manganese	mg/L	NE	NT	NT	NT	NT	NT
VOC[7]	Dichlorodifluoromethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Chloromethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Vinyl chloride	µg/L	0.2	ND	ND	ND	ND	ND
VOC[7]	Bromomethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Chloroethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Trichlolofluoromethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,1-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Carbon disulfide	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Methylene chloride	µg/L	5	ND	ND	ND	ND	ND
VOC[7]	Acetone	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	trans-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Methyl tert-butyl ether (MTBE)	µg/L	20	ND	ND	ND	ND	ND
VOC[7]	1,1-Dichloroethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	cis-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	2,2-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Bromochloromethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Chloroform	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Carbon tetrachloride	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,1,1-Trichloroethane	µg/L	200	ND	ND	ND	ND	ND
VOC[7]	2-Butanone	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,1-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Benzene	µg/L	5	ND	**2.86**	**1.39**	ND	**1.49**
VOC[7]	1,2-Dichloroethane (EDC)	µg/L	5	ND	ND	ND	ND	ND
VOC[7]	Trichloroethene (TCE)	µg/L	5	ND	ND	ND	ND	ND
VOC[7]	Dibromomethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,2-Dicloropropane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Bromodichloromethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	cis-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Toluene	µg/L	1,000	ND	ND	ND	ND	ND
VOC[7]	4-Methyl-2-pentanone	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	trans-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND	ND	ND
VOC[7]	1,1,2-Trichloroethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Dibromochloromethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,3-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date				
				MW-22-022513 02/25/13	MW-23-022513 02/25/13	MW-24-022513 02/25/13	MW-25-022513 02/25/13	Duplicate-1-022513 (MW-24) 02/25/13
VOC[7]	1,2-Dibromoethane (EDB)	µg/L	0.01	ND	ND	ND	ND	ND
VOC[7]	2-Hexanone	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Ethylbenzene	µg/L	700	ND	ND	**1.19**	ND	**1.29**
VOC[7]	Chlorobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,1,1,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	m,p-Xylene	µg/L	1,000[10]	ND	ND	**17.6**	ND	**19.0**
VOC[7]	o-Xylene	µg/L	1,000[10]	ND	ND	**13.5**	ND	**14.7**
VOC[7]	Styrene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Bromoform	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Isopropylbenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	n-Propylbenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,1,2,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Bromobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,3,5-Trimethylbenzene	µg/L	NE	ND	ND	**2.69**	ND	**2.71**
VOC[7]	2-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,2,3-Trichloropropane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	4-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	tert-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,2,4-Trimethylbenzene	µg/L	NE	ND	ND	**10.5**	ND	**11.2**
VOC[7]	sec-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	p-Isopropyltoluene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,3-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,4-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	n-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,2-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,2-Dibromo-3-chloropropane	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Hexachlorobutadiene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	1,2,4-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Naphthalene	µg/L	160	ND	ND	**4.79**	ND	**6.15**
VOC[7]	1,2,3-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND
VOC[7]	Xylenes (total	µg/L	1,000	ND	ND	**31.1**	ND	**33.7**
GC[8]	Total Organic Carbon	mg/L	NE	**2.80 (J)**	**4.29 (J)**	**3.19 (J)**	**2.39 (J)**	**3.14 (J)**
Anions[9]	Nitrate-Nitrogen	mg/L	NE	**2.05**	ND	**5.42**	ND	**5.27**
Anions[9]	Sulfate	mg/L	NE	**35.2**	**39.3**	**101**	**29.2**	**98.0**

Notes:

[1]Chemical analyses conducted by TestAmerica Laboratories, Inc. located in Spokane Valley, Washington.

[2]Washington State, Model Toxics Control Act (MTCA) Method A cleanup levels

[3]Gasoline-range hydrocarbons were analyzed using NWTPH-Gx. The cleanup level is 800 mg/kg when benzene is detected and 1,000 mg/kg when benzene is not present.

[4]Diesel-range hydrocarbons and lube oil-range hydrocarbons were analyzed using NWTPH-Dx.

[5]Diesel-range hydrocarbons and lube oil-range hydrocarbons were analyzed using NWTPH-Dx with silica gel cleanup

[6]Metals were analyzed using EPA 6010/7000 Series Methods.

[7]Volatile organic compounds (VOC) were analyzed using EPA 8260C Methods.

[8]General chemistry (GC) was analyzed using EPA Method 415.

[9]Anions were analyzed using EPA Method 300.0.

[10]MTCA Method A cleanup level for total xylenes is 1,000 µg/L.

Bolding indicates the analyte was detected at a concentration greater than the method reporting limit.

(J) The recovery of matrix sample CMD for the laboratory MS sample was outside of control limits. Results from field samples are qualified as estimated.

µg/L = micrograms per liter; mg/L = milligrams per liter; ND = non detect; NT = not tested; TPH = total petroleum hydrocarbons

Indicates the detected concentration of analyte was greater than the MTCA Method A cleanup level

Indicates the reporting limit of a non-detected analyte exceeded the MTCA Method A cleanup level

https://projects.geoengineers.com/sites/0050406002/Draft/Feb 2013 GW report/[Robys Station GW_Soil Tables 1112_0213.xlsx]Table 3

Table 4

Summary of Field-Measured Natural Attenuation Parameters[1]

Roby's Station

Buena, Washington

Well Number	Date Collected	pH	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Temperature (°C)
MW-5	11/02/12	7.01	0.4107	-110	0.00	0.0901	17.88
	02/25/13	9.07	0.3845	-43	0.00	0.6241	11.08
MW-6	11/02/12	6.93	0.7493	163	0.01	1.770	18.99
	02/25/13	9.10	0.4745	-8	0.03	2.254	9.96
MW-7	11/02/12	6.98	0.6871	-78	0.00	7.831	16.56
	02/25/13	7.34	0.6545	-120	0.00	6.064	13.25
MW-8	11/02/12	7.04	0.4280	63	0.02	1.079	15.72
	02/25/13	7.34	0.4261	33	0.01	1.963	12.24
MW-9	02/25/13	7.33	0.4696	83	0.00	6.257	8.26
MW-15	11/02/12	6.75	0.8940	-307	0.00	37.24	17.25
	02/25/13	9.23	0.8524	-300	0.00	58.64	10.39
MW-22	02/25/13	7.69	0.3334	59	6.14	2.084	6.98
MW-23	02/25/13	7.26	0.5634	-158	0.00	13.00	11.59
MW-24	02/25/13	9.05	0.4323	-4	2.30	0.8942	6.84
MW-25	02/25/13	7.29	0.3937	-71	0.09	2.514	8.76

Notes:

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

°C = degrees Celsius; mS/cm = millisiemens per centimeter; mg/l - milligrams per liter; mV = millivolts; NTU = nephelometric turbidity units

FIGURES

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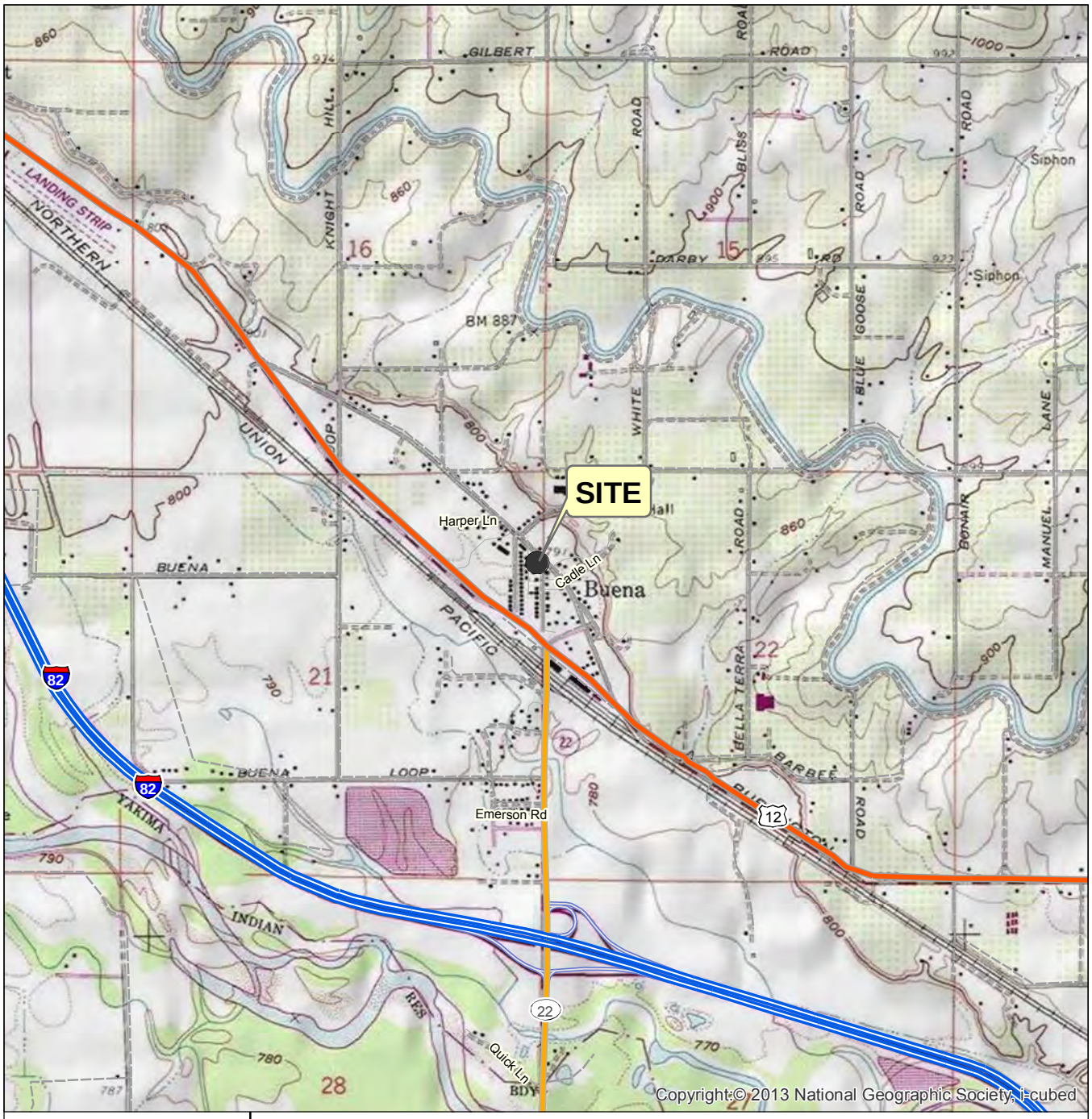

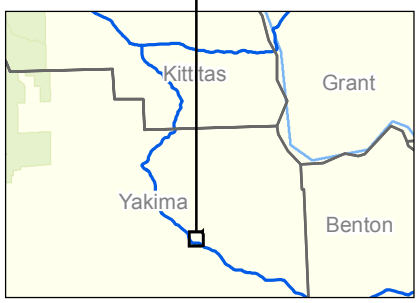

N
W E
S

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.
Projection: NAD 1983, WA State Plane South, feet.

Vicinity Map

Roby's Station
Buena, Washington

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Figure 1

Map Revised: 3/06/2013 CRC

Office: SPO W:\Spokane\Projects\0\0504060\GIS\0504060002_VM_F1.mxd

Office: SPO Path: P:\0\0504060\GIS\050406002_SP_F2_MW.mxd Map Revised: 11 April 2013 ccabrera

MW-9 Existing Monitoring Well Number and Approximate Location

Approximate Location of Excavation Limits

Approximate Location of Concrete Irrigation Line

Approximate Location of Buena Sewer Corridor

N W E S

80 0 80

Feet

Data Source: World imagery Aerial from ESRI Data Online.
Sewer corridor locations provided from Ecology dated 09/26/2011.
Concrete irrigation line located with GPS by GeoEngineers staff.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet
This is a full size drawing that is intended to be printed out on a 11" x 17" sheet of paper

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. This site plan in based on the latest aerial imagery available from ESRI World Imagery, dated July, 2010. Please note that subsequent to these aerial images, the building at Roby's was demolished in late 2011.

Site Plan

Roby's Station
Buena, Washington

GeoEngineers

Figure 2

Office: SPOK Path: P:\0\0504060\GIS\050406002_SP_GW_Nov2012.mxd Map Revised: 10 April 2013 ccabrera

MW-5
788.08
Monitoring Well Number, Approximate Location and Groundwater Elevation (feet)

N
W E
S

50 0 50
Feet

This is a full size drawing that is intended to be printed out on a 11" x 17" sheet of paper
Data Source: Bing Maps Aerial from ESRI Data Online.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

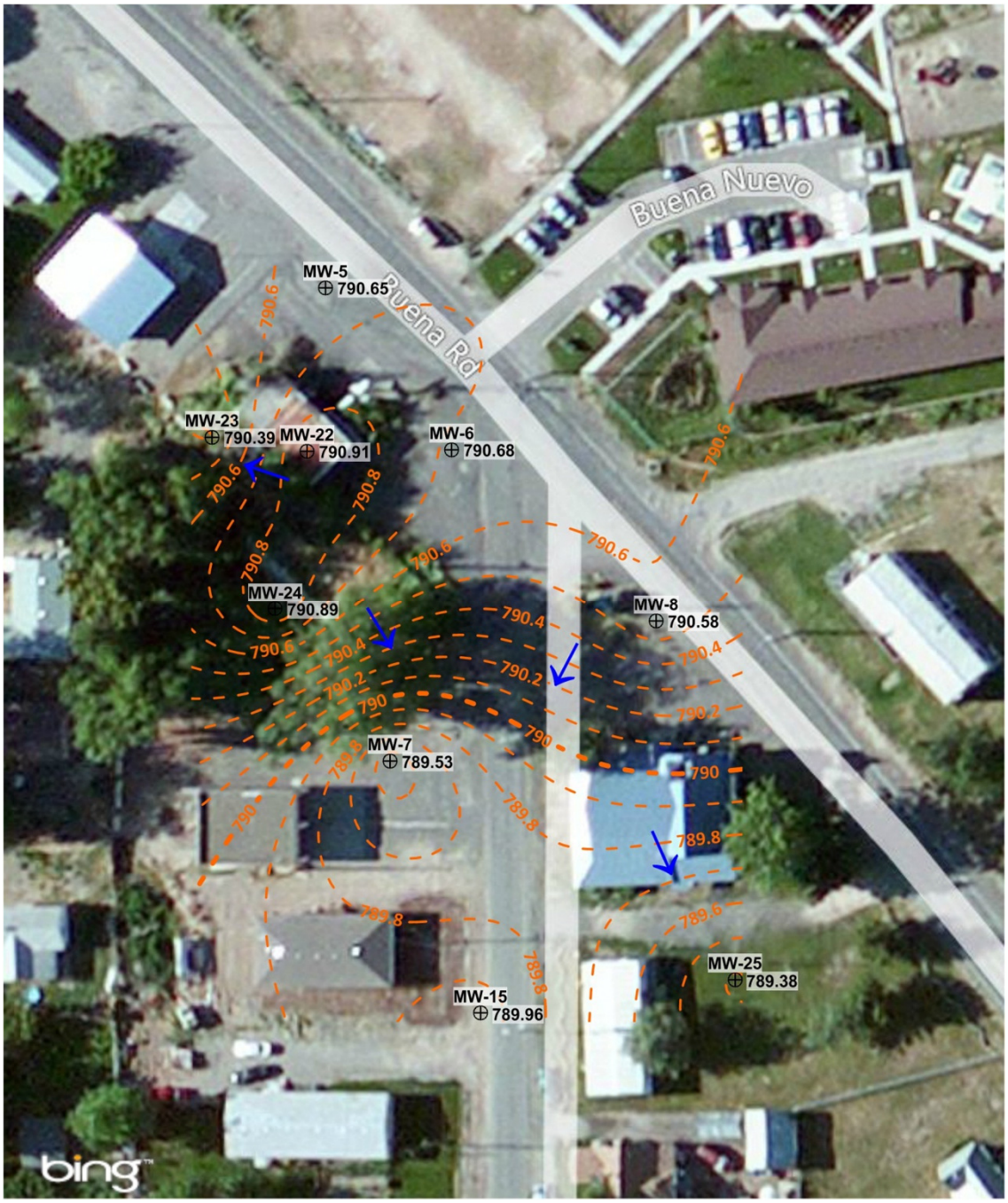
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. This site plan in based on the latest aerial imagery available from ESRI World Imagery, dated July, 2010. Please note that subsequent to these aerial images, the building at Roby's was demolished in late 2011.
4. Well MW-9 is not shown. See Figure 2 for approximate location.

Groundwater Elevations, November 2, 2012

Roby's Station
Buena, Washington

GeoEngineers

Figure 3



Explanation

789.8 Groundwater Elevation Contour (0.1-foot Interval)

Interpreted Groundwater Flow Direction

N
W E
S

100 0 100
Feet

Data Source: Bing Hybrid map from WA DNR data online.

Notes:

1. The locations of all features shown are approximate.
2. Well MW-9 is not shown. Se Figure 2 for approximate location.
3. Groundwater elevation contours generated using the computer program Surfer.
4. Elevations are referenced to the North American Vertical Datum of 1988.
5. 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.

Groundwater Elevation and Interpreted Flow Direction, February 25, 2013

Roby's Station
Buena, Washington

GeoEngineers

Figure 4

File No. 0504-060-02

APPENDICES

GeoEngineers

APPENDIX A
Field Procedures and Logs of Monitoring Wells

APPENDIX A
FIELD PROCEDURES AND LOGS OF MONITORING WELLS

General

Field methods generally were performed in compliance with the project Work Plan and associated Sampling and Analysis Plan (SAP) dated November 23, 2011 (GeoEngineers, 2011). Field procedures at the site described in this report include:

- Collecting groundwater samples from monitoring wells near the Roby's site, specifically MW-5, MW-6, MW-7, MW-8 and MW-15 in early November 2012 during initial interim remedial actions at Roby's. Remedial actions at Roby's site are described in GeoEngineers' draft report titled "Remedial Action Report, Roby's Station, Buena, Washington," dated March 6, 2013.
- Drilling four hollow-stem auger borings at the site following completion of remedial interim action activities. Three borings were drilled within and near the remedial excavation at Roby's. One boring was drilled at an adjunct property to the east of Roby's (Church property), where additional remedial excavation activities were completed in conjunction with remedial work at Roby's, due to the presence of a former heating oil underground storage tank (UST) that was removed from the Church site.
- Installing and developing monitoring wells in each of the four borings.
- Collecting groundwater samples from the previously sampled monitoring wells and the new monitoring wells in February 2013.

Field Explorations

Prior to completion of the subsurface explorations, GeoEngineers contacted the One-Call Utility Notification Center in accordance with Washington State law.

Following clearance of utilities, subsurface conditions at the Site were explored on February 18 and 19, 2013 by drilling four borings using hollow-stem auger drilling methods. The hollow-stem auger borings were completed using a truck-mounted CME 75 hollow-stem auger drill rig, owned and operated by GeoEngineers. Following, completion of drilling activities, monitoring wells were installed in the borings.

Soil Sampling from Borings

Samples of soil encountered in the borings were collected at select sampling depths using 2-inch, outside-diameter standard penetration test (SPT) split-barrel sampler, advanced by a 140 pound automatic hammer falling 30 inches on each blow.

Each boring was continuously monitored by an engineer from our firm, who observed and classified the soil encountered, and prepared a detailed log of each boring. Soil encountered in the borings was classified in the field in general accordance with ASTM International (ASTM) D 2488, the *Standard Practice for Classification of Soils, Visual-Manual Procedure*, which is summarized in Key to Exploration Logs, Figure A-1. Preservation of VOC samples was completed in accordance with Ecology Memo 5, document number 04-09-087. Sample containers were labeled and placed into an ice chest containing ice and/or ice packs.

Sampling equipment was decontaminated between each sampling attempt. Samples were obtained using either a decontaminated soil knife or new, clean nitrile glove and placed into 4- or 8-ounce glass sample jars with Teflon lids. Soil samples for VOCs analyses were obtained consistent with EPA Method 5035A. Chain-of-custody procedures were followed during transport of the soil samples.

Field-screening Methods

A GeoEngineers' representative performed field screening of soil samples obtained during remediation activities. 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. However, 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 does not necessarily indicate the presence or absence of petroleum hydrocarbons.

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

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

Headspace vapor screening involved placing a soil sample in a plastic sample bag. Air was captured in the bag, and the bag was shaken to expose the soil to the air trapped in the bag. Headspace vapor screening targeted volatile petroleum hydrocarbon compounds. In this application, the PID measured the concentration of organic vapors ionizable by a 10.6 electron volt (ev) lamp in the range between 1.0 and 2,000 ppm, with an accuracy of 10 percent of the reading, and between 2,000 ppm and 10,000 ppm with an accuracy of 20 percent of the reading.

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

Monitoring wells were constructed in accordance with Washington Administrative Code (WAC) 173-160, Section 400, *Washington State Resource Protection Well Construction Standards*. All monitoring well records were submitted in accordance with Washington monitoring well construction standards. Monitoring well installation was observed by a GeoEngineers' field engineer who maintained a detailed log of the materials and depths of the well. Well construction details including the depths of the well screen and filter packs were recorded on the monitoring well construction record.

Each monitoring well was constructed using 2-inch-diameter PVC well casing. The annular space in each well was sealed between the top of the filter pack and the ground surface with bentonite to prevent infiltration of groundwater into the well bore from shallower zones. A lockable compression cap was installed in the top of the PVC well casing. A concrete surface seal will be placed around the monument at ground surface to divert surface water away from the well location. Logs of the borings and monitoring well construction are presented in Logs of Monitoring Wells, figures A-2 through A-5.

The depth to water in the monitoring well was measured prior to development. The total depth of the well was also measured and recorded. The monitoring wells were developed by surging and bailing. Each well was developed for approximately 1 to 1.5 hours, or until the volume of silt removed during each bailing step began to decrease. The removal rate and amount of groundwater removed was recorded. Development water was collected and stored on site.

The horizontal locations and elevations of the monitoring wells were surveyed by a licensed surveyor subcontracted to GeoEngineers.

Monitoring Headspace Vapor Measurements

Headspace vapor measurement involved placing the tip of the PID into the headspace of the monitoring well and covering the top of the monitoring well to prevent the exchange of ambient air with air in the monitoring well. Headspace vapor measurements targeted volatile petroleum hydrocarbon compounds. In this application, the PID measured concentration of organic vapors ionizable by a 10.6 ev lamp in the range between 1.0 and 2,000 ppm, with a resolution of +/- 2 ppm.

Groundwater Elevations

Depths to groundwater were measured relative to the monitoring well casing rim using an electric water level indicator. The probe of the water level indicator was decontaminated between wells using a detergent wash, followed by two distilled water rinses.

Low-Flow Sampling Procedures

Groundwater sampling was performed consistent with the EPA's low-flow groundwater sampling procedure, as described by EPA (1996) and Puls and Barcelona (1996). Monitoring well purging

and sampling activities were accomplished using a portable peristaltic pump with disposable tubing. During purging activities, water quality parameters, including pH, conductivity, temperature, turbidity, oxidation-reduction potential and dissolved oxygen, were measured using an In-Situ Troll 9500 multi-parameter meter equipped with a flow-through cell; measurements were recorded approximately every three minutes. The meter calibration was verified at the beginning of each work day consistent with manufacturer recommendations prior to purging and sampling activities.

Groundwater samples were collected after (1) water quality parameters had stabilized; or (2) a maximum purge time of 60 minutes was achieved. During purging and sampling, purge rate was not allowed to exceed 500 milliliters per minute. Water quality parameter stabilization criteria include the following:

- Turbidity: ±10 percent or ±10 nephelometric turbidity units (NTU);
- Dissolved oxygen: ±10 percent;
- Conductivity: ±3 percent;
- pH: ±0.1 unit;
- Temperature: ±3 percent; and
- Oxidation reduction potential: ±10 percent or ±10 mV.

After groundwater quality stabilization criteria were reached, the pump's discharge tubing was disconnected from the flow-through cell and groundwater samples were collected for analysis.

Each sample was pumped directly into sample containers supplied by the laboratory. Groundwater samples collected for chemical analysis were kept cool during on-site storage and transport to the laboratory. Chain-of-custody procedures were observed during transport of the groundwater samples.

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	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	2/18/2013	2/18/2013	13	KAH	DRL	GeoEngineers, Inc.	Hollow-stem Auger

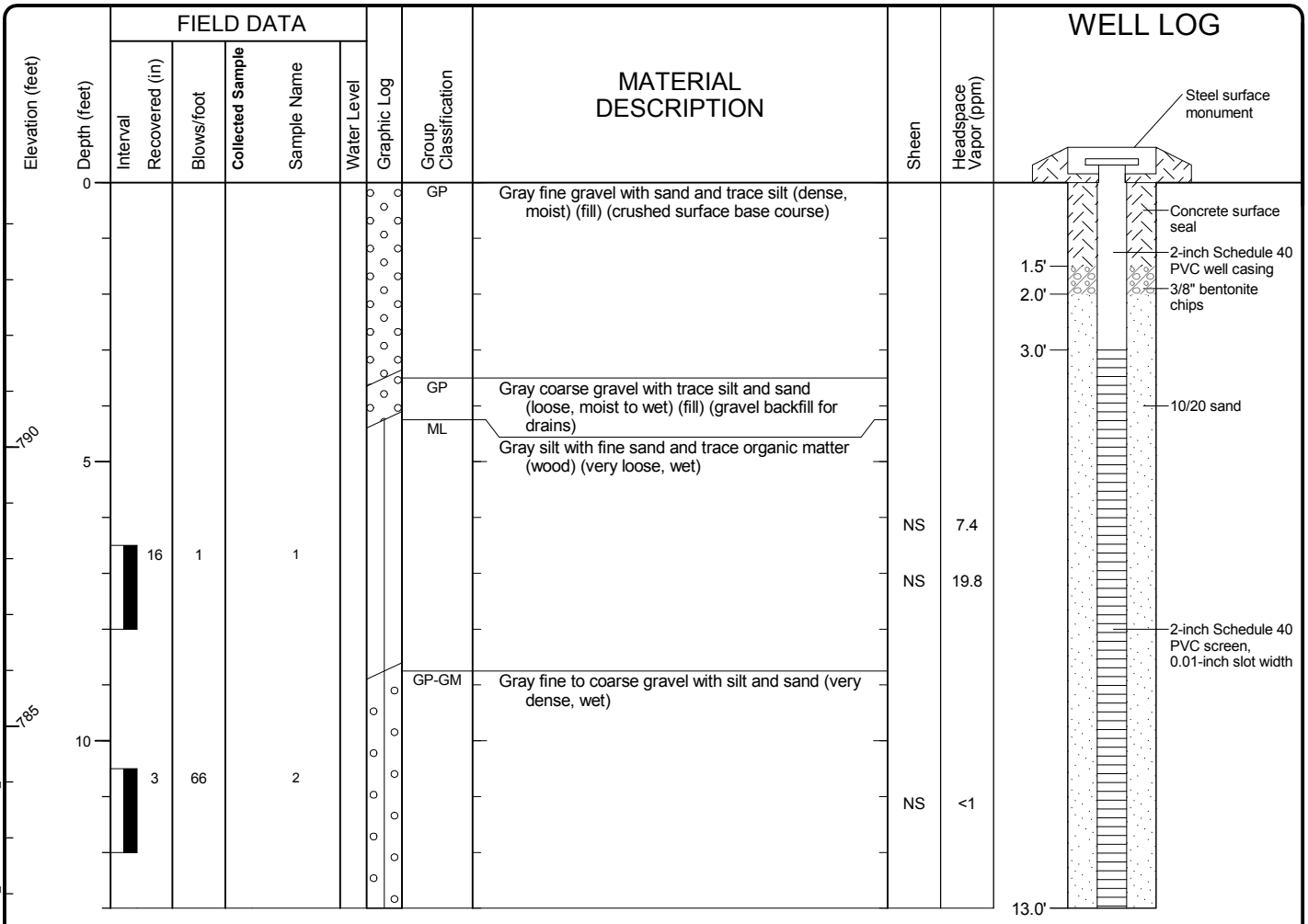
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME 75
Surface Elevation (ft) Vertical Datum	794.74 NAVD 88	Top of Casing Elevation (ft)	794.19
Easting (X) Northing (Y)	1687380 399968	Horizontal Datum	WA State Plane South

A 2 (in) well was installed on 2/18/2013 to a depth of 13 (ft).

Groundwater

Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Horizontal coordinates shown are project coordinates. To obtain grid values, apply a correction factor of 0.999884031.



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

Log of Monitoring Well MW-22

GeoEngineers

Project:	Roby's Station RI/FS
Project Location:	Buena, Washington
Project Number:	0504-060-02

Figure A-2
Sheet 1 of 1

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	2/18/2013	2/18/2013	13	KAH	DRL	GeoEngineers, Inc.	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME 75
Surface Elevation (ft) Vertical Datum	794.94 NAVD 88	Top of Casing Elevation (ft)	794.69
Easting (X) Northing (Y)	1687339 399975	Horizontal Datum	WA State Plane South

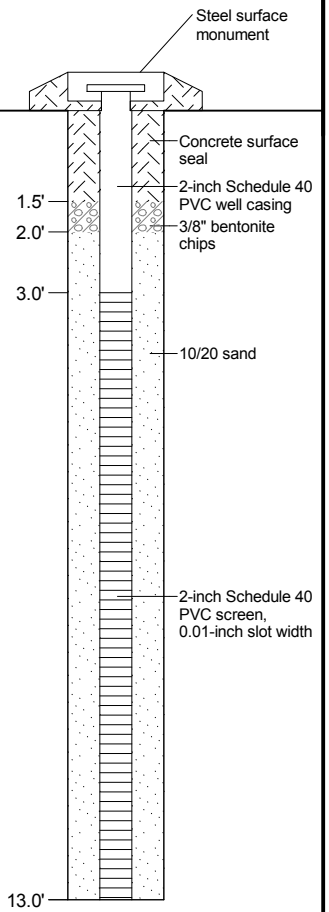
A 2 (in) well was installed on 2/18/2013 to a depth of 13 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Horizontal coordinates shown are project coordinates. To obtain grid values, apply a correction factor of 0.999884031.

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)
	0							GP	Gray fine gravel with sand and trace silt (dense, moist) (fill) (crushed surface base course)		
								SM	Silty fine sand (very soft, wet)		
790	5	5	6		1			GM	Gray silty fine to coarse gravel with sand and trace organic matter (wood) (loose, wet)	SS	<1
785	10	8	30		2			GP-GM	Gray fine to coarse gravel with sand, silt, and trace organic matter (wood) (dense, wet)	NS	<1

WELL LOG



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

Log of Monitoring Well MW-23

GeoEngineers

Project: Roby's Station RI/FS
Project Location: Buena, Washington
Project Number: 0504-060-02

Figure A-3
Sheet 1 of 1

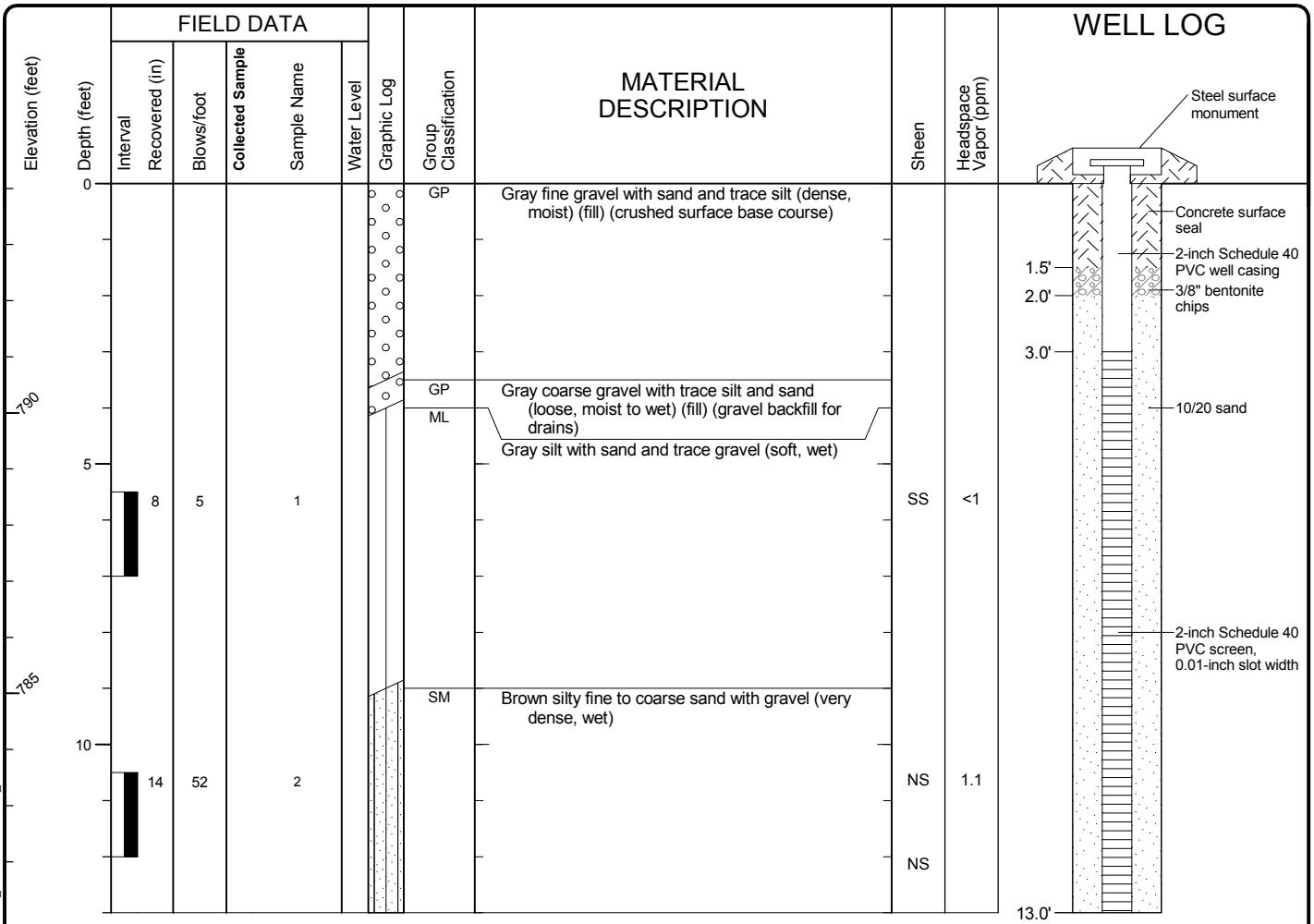
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	2/19/2013	2/19/2013	13	KAH	DRL	GeoEngineers, Inc.	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME 75
Surface Elevation (ft) Vertical Datum	794.09 NAVD 88	Top of Casing Elevation (ft)	793.79
Easting (X) Northing (Y)	1687366 399900	Horizontal Datum	WA State Plane South

A 2 (in) well was installed on 2/19/2013 to a depth of 13 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Horizontal coordinates shown are project coordinates. To obtain grid values, apply a correction factor of 0.999884031.



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

Log of Monitoring Well MW-24

GeoEngineers

Project:	Roby's Station RI/FS
Project Location:	Buena, Washington
Project Number:	0504-060-02

Figure A-4
Sheet 1 of 1

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	2/19/2013	2/19/2013	10	KAH	DRL	GeoEngineers, Inc.	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME 75
Surface Elevation (ft) Vertical Datum	792.7 NAVD 88	Top of Casing Elevation (ft)	792.39
Easting (X) Northing (Y)	1687566 399738	Horizontal Datum	WA State Plane South

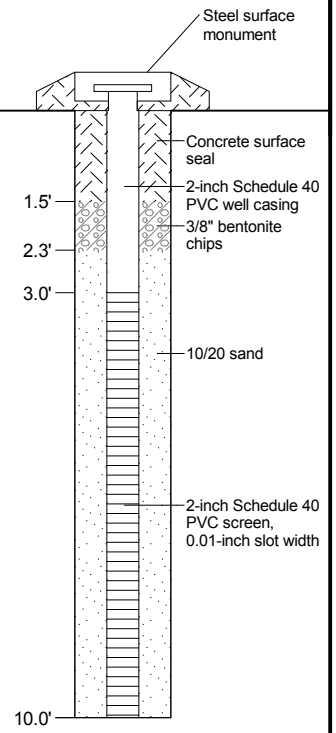
A 2 (in) well was installed on 2/19/2013 to a depth of 10 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Horizontal coordinates shown are project coordinates. To obtain grid values, apply a correction factor of 0.999884031.

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)
	0							ML	Brown to gray silt with fine sand (soft to medium stiff, moist to wet)		
790								GP-GM	Brown fine to coarse gravel with silt and sand (dense, wet)		
	5	8	33		1					SS	<1
785		2	20/2"		2					NS	<1
	10							SP-SM	Brown fine to coarse sand with silt and gravel (very dense, wet)		

WELL LOG



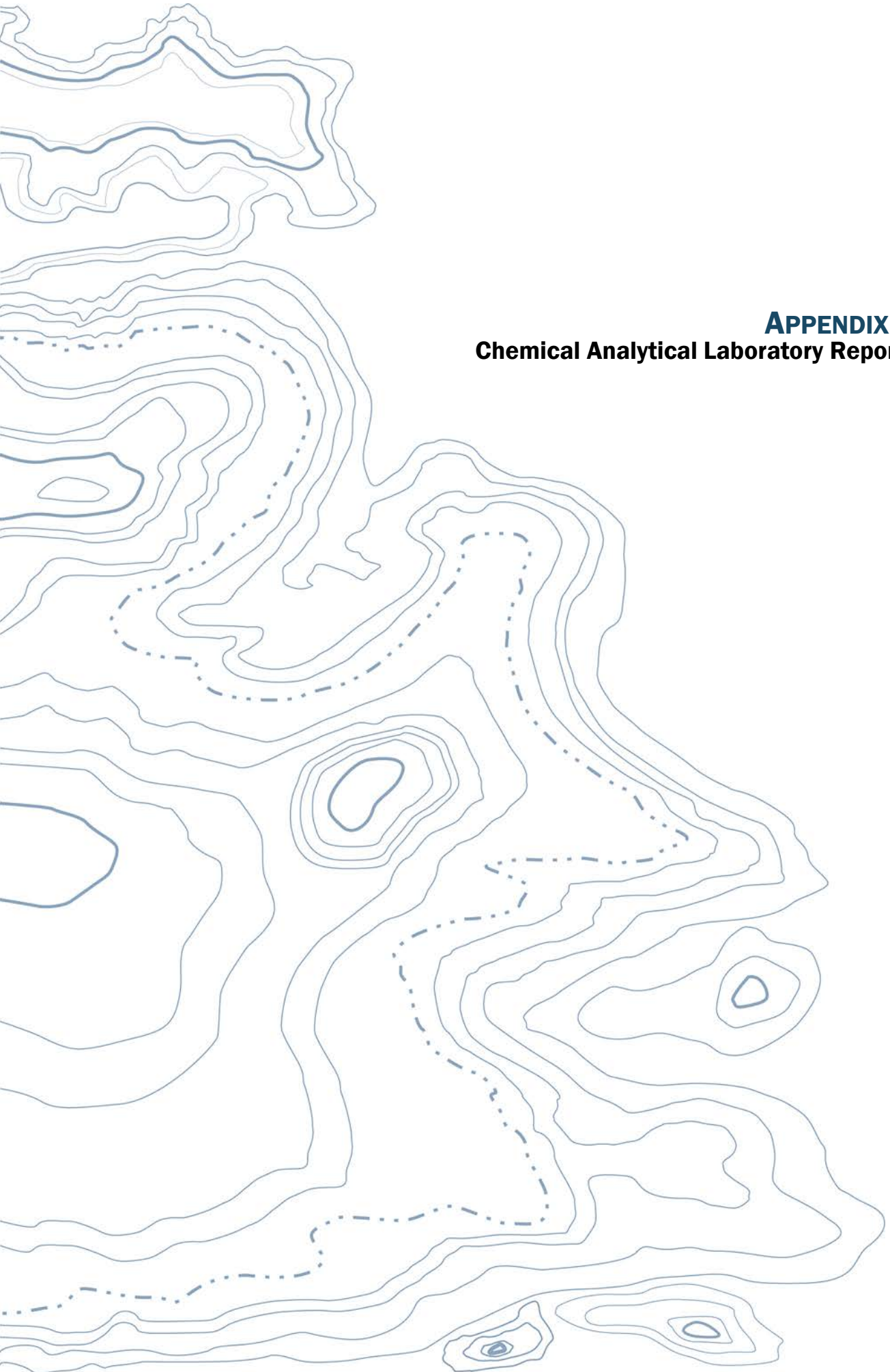
Notes: Please refer to Figure A-1 for an explanation of symbols.

Log of Monitoring Well MW-25

GeoEngineers

Project:	Roby's Station RI/FS
Project Location:	Buena, Washington
Project Number:	0504-060-02

Figure A-5
Sheet 1 of 1



APPENDIX B
Chemical Analytical Laboratory Reports

APPENDIX B
CHEMICAL ANALYTICAL LABORATORY REPORTS

Samples

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

Analytical Data Review

The laboratory maintains an internal quality assurance/quality control (QA/QC) program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike (MS) recoveries, matrix spike duplicate (MSD) 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.

November 2012 – Groundwater

TestAmerica Richland, Washington noted the following exceptions in their laboratory report associated with project groundwater samples, dated November 5, 2012:

- For batch 2307116: Due to an analysts error sample MW-15 was not filtered, the sample contained colored contaminants that potentially resulted in a false positive. The sample matrix spike and sample matrix spike duplicate recovered below the acceptance criteria. All other batch QC criteria are within the acceptance limits. Except as noted; the Laboratory Control Spike (LCS), batch blank, samples, sample duplicate, matrix spike and sample matrix spike duplicate results are within acceptance limits.
- For batch 2310067: The samples were analyzed out of hold time. Except as noted; the LCS, batch blank, samples, sample duplicate, MS and sample MSD results are within acceptance limits.

TestAmerica Spokane Valley, Washington noted the following exceptions in their laboratory report associated with project groundwater samples, dated November 19, 2012:

- The calibration verification recovery was above the method control limit for dichlorodifluoromethane. This analyte was not detected in any samples; the data was not impacted.
- Chromium III data was calculated using the Hexavalent Chromium data provided by TestAmerica Richland.
- In the samples from MW-5, MW-7, and MW-15, the initial calibration verification/continuing calibration verification (ICV/CCV) for iron was within acceptance limits; the low level ICV/CCV recovery was above the method control limit for this analyte. The analyte concentration was

greater than 10x the low level initial calibration verification/low level continuing calibration verification (LLICV/LLCCV) concentration. The data was not impacted.

- In the samples from MW-6 and MW-8, the ICV/CCV for iron was within acceptance limits; the low level ICV/CCV recovery was below the method control limit for this analyte. The reporting limit was raised to the ICV/CCV level for this analyte.

February 2013 – Soil

TestAmerica Spokane Valley, Washington noted the following exceptions in their laboratory report associated with project soil samples, dated March 8, 2013:

- Methylene chloride was detected in the method blank. It was also detected in the sample at MW-24(5.5). This compound is a common lab solvent and contaminant. The positive result for methylene chloride was qualified as estimated due to likely laboratory contamination.
- In sample MW-22(6.5) the relative percent difference (RPD) exceeded the acceptance limit due to sample matrix effects.

February 2013 – Groundwater

- In the matrix spike for total organic carbon the MS or MSD exceeded the control limits. Total organic carbon results were qualified in estimated.
- For sample MW-25-022513, due to low levels of analyte in the sample, the duplicate RPD calculation for nitrate-nitrogen does not provide useful information.

During the February 2013 groundwater sampling event, a duplicate sample was collected from MW-24 and designated Duplicate-1-022513. The RPDs between the concentrations reported for the primary (X_1) and duplicate (X_2) samples were calculated using the following equation if both positive concentrations were more than 5 times the reporting limit:

$$RPD = \frac{|X_1 - X_2|}{(X_1 + X_2)/2} * 100$$

The resulting RPDs calculated for contaminants of concern are summarized below:

- Benzene – 6.94 percent
- m,p-Xylene – 7.65 percent
- o-Xylenes – 8.51 percent
- 1,2,4-Trimethylbenzene – 6.45 percent
- Nitrate-Nitrogen – 2.81 percent
- Sulfate – 3.02 percent

RPD goals for this assessment, as specified in the project Quality Assurance Project Plan (QAPP), are 20 percent for GRPH, 25 percent for DRPH and ORPH, and 30 percent for other analytes for groundwater. Therefore, the RPD values specified above are within acceptable limits.

If both positive concentrations of contaminants were not more than 5 times the reporting limit the data were analyzed by calculating the relative difference (RD) between the numbers as shown below:

The resulting RDs calculated for $RD = |X_1 - X_2|$ contaminants of concern are summarized below:

- GRPH – 25 µg/L
- Ethylbenzene – 0.1 µg/L
- 1,3,5-Trimethylbenzene – 0.02 µg/L
- Naphthalene – 1.36 µg/L
- Total organic carbon – 0.05 mg/L

The control limit used for this method for groundwater samples is the reporting limit. The RDs for the above analytes are less than their reporting limits, therefore the RD values specified above are within acceptable limits.

Other analytes were not detected at concentrations greater than their respective reporting limits in the primary and duplicate samples. It is our opinion that the data are acceptable for use.

Analytical Data Review Summary

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: SVK0028
Client Project/Site: 0504-060-02
Client Project Description: Roby's Station - Buena

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

Attn: Dave Lauder

Authorized for release by:
11/19/2012 5:25:36 PM

Randee Decker
Project Manager
Randee.Decker@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SVK0028-01	MW-5-110212	Water	11/02/12 10:24	11/05/12 16:26
SVK0028-02	MW-6-110212	Water	11/02/12 09:47	11/05/12 16:26
SVK0028-03	MW-7-110212	Water	11/02/12 11:18	11/05/12 16:26
SVK0028-04	MW-8-110212	Water	11/02/12 08:56	11/05/12 16:26
SVK0028-05	MW-15-110212	Water	11/02/12 12:15	11/05/12 16:26

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Metals

Qualifier	Qualifier Description
A-01	Chromium III data was calculated using the Hexavalent Chromium data provided by TestAmerica Richland.
C10	ICV/CCV was within acceptance limits. Low Level ICV/CCV recovery was above the method control limit for this analyte. Analyte concentration was greater than 10x the LLICV/LLCCV concentration, data not impacted.
A-01a	ICV/CCV was within acceptance limits. Low Level CCV recovery was below the method control limit for this analyte. The reporting limit has been raised to the ICV/CCV level for this analyte.

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)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-5-110212
Date Collected: 11/02/12 10:24
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-01
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		11/07/12 08:07	11/07/12 13:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 13:36*	*1.00*
Toluene-d8	*106*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 13:36*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 13:36*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	C	1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Chloromethane	ND		3.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Vinyl chloride	ND		0.200		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Bromomethane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Chloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Trichlorofluoromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Carbon disulfide	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Methylene chloride	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Acetone	ND		25.0		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1-Dichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
2,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Bromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Chloroform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Carbon tetrachloride	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
2-Butanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Benzene	ND		0.200		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Trichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Dibromomethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Bromodichloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Toluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Tetrachloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Dibromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,3-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2-Dibromoethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
2-Hexanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Ethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Chlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
m,p-Xylene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-5-110212
Date Collected: 11/02/12 10:24
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-01
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Styrene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Bromoform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Isopropylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
n-Propylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Bromobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
2-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
4-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
tert-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
sec-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
p-Isopropyltoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
n-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Hexachlorobutadiene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
Naphthalene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 13:36*	*1.00*
Toluene-d8	*106*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 13:36*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 13:36*	*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		11/07/12 08:01	11/07/12 15:43	1.00
Heavy Oil Range Hydrocarbons	ND		0.478		mg/l		11/07/12 08:01	11/07/12 15:43	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*75.3*		*50 - 150*	*11/07/12 08:01*	*11/07/12 15:43*	*1.00*
n-Triacontane-d62	*81.3*		*50 - 150*	*11/07/12 08:01*	*11/07/12 15:43*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/l		11/13/12 11:52	11/16/12 09:49	1.00
Chromium	ND		0.00800		mg/l		11/13/12 11:52	11/16/12 09:49	1.00
Iron	**3.71**	**C10**	0.0300		mg/l		11/13/12 11:52	11/16/12 09:49	1.00
Manganese	**0.770**		0.0100		mg/l		11/13/12 11:52	11/16/12 09:49	1.00

Method: TA Calc - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (III)	ND	A-01	0.0160		mg/l		11/16/12 09:00	11/16/12 09:00	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-6-110212
Date Collected: 11/02/12 09:47
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-02
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		11/07/12 08:07	11/07/12 13:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 13:59*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 13:59*	*1.00*
4-bromofluorobenzene	*107*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 13:59*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	C	1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Chloromethane	ND		3.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Vinyl chloride	ND		0.200		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Bromomethane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Chloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Trichlorofluoromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Carbon disulfide	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Methylene chloride	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Acetone	ND		25.0		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1-Dichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
2,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Bromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Chloroform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Carbon tetrachloride	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
2-Butanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Benzene	ND		0.200		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Trichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Dibromomethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Bromodichloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Toluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Tetrachloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Dibromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,3-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2-Dibromoethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
2-Hexanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Ethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Chlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
m,p-Xylene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-6-110212
Date Collected: 11/02/12 09:47
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-02
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Styrene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Bromoform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Isopropylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
n-Propylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Bromobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
2-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
4-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
tert-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
sec-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
p-Isopropyltoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
n-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Hexachlorobutadiene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
Naphthalene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 13:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 13:59*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 13:59*	*1.00*
4-bromofluorobenzene	*107*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 13:59*	*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		0.238		mg/l		11/07/12 08:01	11/07/12 16:01	1.00
Heavy Oil Range Hydrocarbons	ND		0.477		mg/l		11/07/12 08:01	11/07/12 16:01	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*75.1*		*50 - 150*	*11/07/12 08:01*	*11/07/12 16:01*	*1.00*
n-Triacontane-d62	*78.1*		*50 - 150*	*11/07/12 08:01*	*11/07/12 16:01*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/l		11/13/12 11:52	11/16/12 10:07	1.00
Chromium	ND		0.00800		mg/l		11/13/12 11:52	11/16/12 10:07	1.00
Iron	ND	A-01a	1.00		mg/l		11/13/12 11:52	11/19/12 13:17	1.00
Manganese	**1.34**		0.0100		mg/l		11/13/12 11:52	11/16/12 10:07	1.00

Method: TA Calc - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (III)	ND	A-01	0.0160		mg/l		11/16/12 09:00	11/16/12 09:00	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-7-110212
Date Collected: 11/02/12 11:18
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-03
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		11/07/12 08:07	11/07/12 14:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*111*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 14:23*	*1.00*
Toluene-d8	*106*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 14:23*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 14:23*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	C	1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Chloromethane	ND		3.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Vinyl chloride	ND		0.200		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Bromomethane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Chloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Trichlorofluoromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Carbon disulfide	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Methylene chloride	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Acetone	ND		25.0		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1-Dichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
2,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Bromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Chloroform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Carbon tetrachloride	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
2-Butanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Benzene	ND		0.200		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Trichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Dibromomethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Bromodichloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Toluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Tetrachloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Dibromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,3-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2-Dibromoethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
2-Hexanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Ethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Chlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
m,p-Xylene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-7-110212
Date Collected: 11/02/12 11:18
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-03
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Styrene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Bromoform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Isopropylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
n-Propylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Bromobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
2-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
4-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
tert-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
sec-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
p-Isopropyltoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
n-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Hexachlorobutadiene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
Naphthalene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*111*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 14:23*	*1.00*
Toluene-d8	*106*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 14:23*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 14:23*	*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		0.238		mg/l		11/07/12 08:01	11/07/12 16:18	1.00
Heavy Oil Range Hydrocarbons	ND		0.475		mg/l		11/07/12 08:01	11/07/12 16:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*71.1*		*50 - 150*	*11/07/12 08:01*	*11/07/12 16:18*	*1.00*
n-Triacontane-d62	*70.9*		*50 - 150*	*11/07/12 08:01*	*11/07/12 16:18*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/l		11/13/12 11:52	11/16/12 10:11	1.00
Chromium	ND		0.00800		mg/l		11/13/12 11:52	11/16/12 10:11	1.00
Iron	**3.90**	**C10**	0.0300		mg/l		11/13/12 11:52	11/16/12 10:11	1.00
Manganese	**2.04**		0.0100		mg/l		11/13/12 11:52	11/16/12 10:11	1.00

Method: TA Calc - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (III)	ND	A-01	0.0160		mg/l		11/16/12 09:00	11/16/12 09:00	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-8-110212
Date Collected: 11/02/12 08:56
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-04
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		11/07/12 08:07	11/07/12 14:46	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 14:46*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 14:46*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 14:46*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	C	1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Chloromethane	ND		3.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Vinyl chloride	ND		0.200		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Bromomethane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Chloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Trichlorofluoromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Carbon disulfide	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Methylene chloride	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Acetone	ND		25.0		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1-Dichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
2,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Bromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Chloroform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Carbon tetrachloride	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
2-Butanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Benzene	ND		0.200		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Trichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Dibromomethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Bromodichloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Toluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Tetrachloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Dibromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,3-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2-Dibromoethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
2-Hexanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Ethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Chlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
m,p-Xylene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-8-110212
Date Collected: 11/02/12 08:56
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-04
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Styrene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Bromoform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Isopropylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
n-Propylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Bromobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
2-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
4-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
tert-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
sec-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
p-Isopropyltoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
n-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Hexachlorobutadiene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
Naphthalene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 14:46	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 14:46*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 14:46*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 14:46*	*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	**2.42**		0.238		mg/l		11/07/12 08:01	11/07/12 17:10	1.00
Heavy Oil Range Hydrocarbons	**2.05**		0.476		mg/l		11/07/12 08:01	11/07/12 17:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*73.2*		*50 - 150*	*11/07/12 08:01*	*11/07/12 17:10*	*1.00*
n-Triacontane-d62	*102*		*50 - 150*	*11/07/12 08:01*	*11/07/12 17:10*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/l		11/13/12 11:52	11/16/12 10:15	1.00
Chromium	ND		0.00800		mg/l		11/13/12 11:52	11/16/12 10:15	1.00
Iron	ND	A-01a	1.00		mg/l		11/13/12 11:52	11/19/12 13:14	1.00
Manganese	**0.158**		0.0100		mg/l		11/13/12 11:52	11/16/12 10:15	1.00

Method: TA Calc - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (III)	ND	A-01	0.0160		mg/l		11/16/12 09:00	11/16/12 09:00	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-15-110212
Date Collected: 11/02/12 12:15
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-05
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		11/07/12 08:07	11/07/12 15:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*115*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 15:10*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 15:10*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 15:10*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	C	1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Chloromethane	ND		3.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Vinyl chloride	**1.68**		0.200		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Bromomethane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Chloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Trichlorofluoromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Carbon disulfide	**1.31**		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Methylene chloride	ND		10.0		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Acetone	**33.4**		25.0		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1-Dichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
2,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Bromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Chloroform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Carbon tetrachloride	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
2-Butanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Benzene	ND		0.200		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Trichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Dibromomethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Bromodichloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Toluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Tetrachloroethene	**2.95**		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Dibromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,3-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2-Dibromoethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
2-Hexanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Ethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Chlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
m,p-Xylene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-15-110212
Date Collected: 11/02/12 12:15
Date Received: 11/05/12 16:26

Lab Sample ID: SVK0028-05
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Styrene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Bromoform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Isopropylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
n-Propylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Bromobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
2-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
4-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
tert-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
sec-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
p-Isopropyltoluene	**26.8**		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
n-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Hexachlorobutadiene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
Naphthalene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 15:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*115*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 15:10*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 15:10*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 15:10*	*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		11/07/12 08:01	11/07/12 17:27	1.00
Heavy Oil Range Hydrocarbons	ND		0.477		mg/l		11/07/12 08:01	11/07/12 17:27	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*73.2*		*50 - 150*	*11/07/12 08:01*	*11/07/12 17:27*	*1.00*
n-Triacontane-d62	*87.6*		*50 - 150*	*11/07/12 08:01*	*11/07/12 17:27*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/l		11/13/12 11:52	11/16/12 10:28	1.00
Chromium	ND		0.00800		mg/l		11/13/12 11:52	11/16/12 10:28	1.00
Iron	**0.339**	**C10**	0.0300		mg/l		11/13/12 11:52	11/16/12 10:28	1.00
Manganese	**0.0581**		0.0100		mg/l		11/13/12 11:52	11/16/12 10:28	1.00

Method: TA Calc - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (III)	ND	A-01	0.0160		mg/l		11/16/12 09:00	11/16/12 09:00	1.00

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 12K0049-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0049 — **Prep Batch: 12K0049_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		11/07/12 08:07	11/07/12 11:38	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*110*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 11:38*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 11:38*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 11:38*	*1.00*

Lab Sample ID: 12K0049-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0049 — **Prep Batch: 12K0049_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons			1000	1110		ug/l		111	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*108*		*71.2 - 143*
Toluene-d8	*109*		*74.1 - 135*
4-bromofluorobenzene	*107*		*68.7 - 141*

Lab Sample ID: 12K0049-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0049 — **Prep Batch: 12K0049_P**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*110*		*71.2 - 143*
Toluene-d8	*110*		*74.1 - 135*
4-bromofluorobenzene	*107*		*68.7 - 141*

Lab Sample ID: 12K0049-MS1 — **Client Sample ID: MW-5-110212**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0049 — **Prep Batch: 12K0049_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons	ND		1000	954		ug/l		95.4	55.6 - 126		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*110*		*71.2 - 143*
Toluene-d8	*108*		*74.1 - 135*
4-bromofluorobenzene	*104*		*68.7 - 141*

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

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

Lab Sample ID: 12K0049-BLK1
Matrix: Water
Analysis Batch: 12K0049

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12K0049_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	C	1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Chloromethane	ND		3.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Vinyl chloride	ND		0.200		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Bromomethane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Chloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Trichlorofluoromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Carbon disulfide	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Methylene chloride	ND		10.0		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Acetone	ND		25.0		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1-Dichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
2,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Bromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Chloroform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Carbon tetrachloride	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
2-Butanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Benzene	ND		0.200		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Trichloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Dibromomethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Bromodichloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Toluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Tetrachloroethene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Dibromochloromethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,3-Dichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2-Dibromoethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
2-Hexanone	ND		10.0		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Ethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Chlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
m,p-Xylene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
o-Xylene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Styrene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Bromoform	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Isopropylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
n-Propylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Bromobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

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

Lab Sample ID: 12K0049-BLK1
Matrix: Water
Analysis Batch: 12K0049

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12K0049_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
2-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
4-Chlorotoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
tert-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
sec-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
p-Isopropyltoluene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
n-Butylbenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Hexachlorobutadiene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
Naphthalene	ND		2.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		11/07/12 08:07	11/07/12 11:38	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*110*		*71.2 - 143*	*11/07/12 08:07*	*11/07/12 11:38*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*11/07/12 08:07*	*11/07/12 11:38*	*1.00*
4-bromofluorobenzene	*104*		*68.7 - 141*	*11/07/12 08:07*	*11/07/12 11:38*	*1.00*

Lab Sample ID: 12K0049-BS2
Matrix: Water
Analysis Batch: 12K0049

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12K0049_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			10.0	11.7		ug/l		117	78.1 - 155		
Benzene			10.0	11.0		ug/l		110	84.2 - 122		
Trichloroethene			10.0	10.8		ug/l		108	74.8 - 123		
Toluene			10.0	11.1		ug/l		111	85.8 - 123		
Chlorobenzene			10.0	10.9		ug/l		109	79.2 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*110*		*71.2 - 143*
Toluene-d8	*110*		*74.1 - 135*
4-bromofluorobenzene	*107*		*68.7 - 141*

Lab Sample ID: 12K0049-MS2
Matrix: Water
Analysis Batch: 12K0049

Client Sample ID: MW-6-110212
Prep Type: Total
Prep Batch: 12K0049_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene	ND		10.0	12.4		ug/l		124	52.5 - 135		
Benzene	ND		10.0	11.0		ug/l		110	72.3 - 120		
Trichloroethene	ND		10.0	11.4		ug/l		114	80 - 120		
Toluene	ND		10.0	11.1		ug/l		111	62.7 - 137		

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

Lab Sample ID: 12K0049-MS2 — **Client Sample ID: MW-6-110212**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0049 — **Prep Batch: 12K0049_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	ND		10.0	11.0		ug/l		110	78.9 - 120

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*108*		*71.2 - 143*
Toluene-d8	*108*		*74.1 - 135*
4-bromofluorobenzene	*106*		*68.7 - 141*

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

Lab Sample ID: 12K0048-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0048 — **Prep Batch: 12K0048_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.250		mg/l		11/07/12 08:01	11/07/12 13:41	1.00
Heavy Oil Range Hydrocarbons	ND		0.500		mg/l		11/07/12 08:01	11/07/12 13:41	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*65.8*		*50 - 150*	*11/07/12 08:01*	*11/07/12 13:41*	*1.00*
n-Triacontane-d62	*82.3*		*50 - 150*	*11/07/12 08:01*	*11/07/12 13:41*	*1.00*

Lab Sample ID: 12K0048-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0048 — **Prep Batch: 12K0048_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons			2.50	1.91		mg/l		76.2	54.5 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FBP	*70.7*		*50 - 150*
n-Triacontane-d62	*82.6*		*50 - 150*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Lab Sample ID: 12K0085-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0085 — **Prep Batch: 12K0085_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/l		11/13/12 11:52	11/16/12 09:46	1.00
Chromium	ND		0.00800		mg/l		11/13/12 11:52	11/16/12 09:46	1.00
Iron	ND		0.0300		mg/l		11/13/12 11:52	11/16/12 09:46	1.00
Manganese	ND		0.0100		mg/l		11/13/12 11:52	11/16/12 09:46	1.00

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods (Continued)

Lab Sample ID: 12K0085-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0085 — **Prep Batch: 12K0085_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.968		mg/l		96.8	80 - 120
Chromium	1.00	0.969		mg/l		96.9	80 - 120
Iron	1.00	0.941		mg/l		94.1	80 - 120
Manganese	1.00	0.986		mg/l		98.6	80 - 120

Lab Sample ID: 12K0085-MS1 — **Client Sample ID: MW-5-110212**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0085 — **Prep Batch: 12K0085_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		1.00	0.988		mg/l		98.8	75 - 125
Chromium	ND		1.00	0.959		mg/l		95.9	75 - 125
Iron	3.71	C10	1.00	4.67		mg/l		96.1	75 - 125
Manganese	0.770		1.00	1.73		mg/l		95.8	75 - 125

Lab Sample ID: 12K0085-MSD1 — **Client Sample ID: MW-5-110212**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0085 — **Prep Batch: 12K0085_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		1.00	0.969		mg/l		96.9	75 - 125	1.93	20
Chromium	ND		1.00	0.946		mg/l		94.6	75 - 125	1.39	20
Iron	3.71	C10	1.00	4.61		mg/l		89.8	75 - 125	1.37	20
Manganese	0.770		1.00	1.71		mg/l		94.2	75 - 125	0.960	20

Lab Sample ID: 12K0085-DUP1 — **Client Sample ID: MW-5-110212**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0085 — **Prep Batch: 12K0085_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND		ND		mg/l			20
Chromium	ND		ND		mg/l			20
Iron	3.71	C10	3.65		mg/l		1.70	20
Manganese	0.770		0.760		mg/l		1.19	20

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-5-110212

Lab Sample ID: SVK0028-01

Date Collected: 11/02/12 10:24

Matrix: Water

Date Received: 11/05/12 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12K0049_P	11/07/12 08:07	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12K0049	11/07/12 13:36	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	12K0048_P	11/07/12 08:01	CBW	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	12K0048	11/07/12 15:43	MS	TAL SPK
Total	Prep	Metals		1.00	12K0085_P	11/13/12 11:52	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/16/12 09:49	ICP	TAL SPK
Total	Analysis	TA Calc		1.00	12K0119	11/16/12 09:00	RD	TAL SPK
Total	Prep	*** DEFAULT PREP ***			12K0119_P	11/16/12 09:00	RD	TAL SPK

Client Sample ID: MW-6-110212

Lab Sample ID: SVK0028-02

Date Collected: 11/02/12 09:47

Matrix: Water

Date Received: 11/05/12 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12K0049_P	11/07/12 08:07	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12K0049	11/07/12 13:59	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.953	12K0048_P	11/07/12 08:01	CBW	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	12K0048	11/07/12 16:01	MS	TAL SPK
Total	Prep	Metals		1.00	12K0085_P	11/13/12 11:52	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/16/12 10:07	ICP	TAL SPK
Total	Analysis	TA Calc		1.00	12K0119	11/16/12 09:00	RD	TAL SPK
Total	Prep	*** DEFAULT PREP ***			12K0119_P	11/16/12 09:00	RD	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/19/12 13:17	ICP	TAL SPK

Client Sample ID: MW-7-110212

Lab Sample ID: SVK0028-03

Date Collected: 11/02/12 11:18

Matrix: Water

Date Received: 11/05/12 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12K0049_P	11/07/12 08:07	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12K0049	11/07/12 14:23	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.950	12K0048_P	11/07/12 08:01	CBW	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	12K0048	11/07/12 16:18	MS	TAL SPK
Total	Prep	Metals		1.00	12K0085_P	11/13/12 11:52	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/16/12 10:11	ICP	TAL SPK
Total	Analysis	TA Calc		1.00	12K0119	11/16/12 09:00	RD	TAL SPK
Total	Prep	*** DEFAULT PREP ***			12K0119_P	11/16/12 09:00	RD	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Client Sample ID: MW-8-110212

Lab Sample ID: SVK0028-04

Date Collected: 11/02/12 08:56
Matrix: Water
Date Received: 11/05/12 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12K0049_P	11/07/12 08:07	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12K0049	11/07/12 14:46	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.953	12K0048_P	11/07/12 08:01	CBW	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	12K0048	11/07/12 17:10	MS	TAL SPK
Total	Prep	Metals		1.00	12K0085_P	11/13/12 11:52	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/16/12 10:15	ICP	TAL SPK
Total	Analysis	TA Calc		1.00	12K0119	11/16/12 09:00	RD	TAL SPK
Total	Prep	*** DEFAULT PREP ***			12K0119_P	11/16/12 09:00	RD	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/19/12 13:14	ICP	TAL SPK

Client Sample ID: MW-15-110212

Lab Sample ID: SVK0028-05

Date Collected: 11/02/12 12:15
Matrix: Water
Date Received: 11/05/12 16:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12K0049_P	11/07/12 08:07	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12K0049	11/07/12 15:10	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.954	12K0048_P	11/07/12 08:01	CBW	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	12K0048	11/07/12 17:27	MS	TAL SPK
Total	Prep	Metals		1.00	12K0085_P	11/13/12 11:52	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	12K0085	11/16/12 10:28	ICP	TAL SPK
Total	Analysis	TA Calc		1.00	12K0119	11/16/12 09:00	RD	TAL SPK
Total	Prep	*** DEFAULT PREP ***			12K0119_P	11/16/12 09:00	RD	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: 0504-060-02

TestAmerica Job ID: SVK0028

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	10-31-13
Washington	State Program	10	C569	01-06-13

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SVK0028

Method	Method Description	Protocol	Laboratory
EPA 8260C	NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
EPA 6010C	Total Metals by EPA 6010/7000 Series Methods		TAL SPK
TA Calc	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

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
5755 8th Street East,Tacoma,Wa 98424 253-922-2310 FAX 922-5047
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 #: SVK0078

CLIENT: GEDEON WEEKS

INVOICE TO: DAVE LAUDER

REPORT TO: DAVE LAUDER
ADDRESS: 523 E 2ND AVE
SPOKANE, WA 99202
PHONE: 509-363-3125 FAX: 509-363-3126

P.O. NUMBER:

PROJECT NAME: BUENA PETROLEUM CONTAMINATION
PROJECT NUMBER: RODY'S STATION 0504-060-02
SAMPLED BY: KATIE HALL

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: GRAPH	NWTPH-Gx Dx/HCID 8A	NWTPH-Dx 8A	VOCs 8A 8260D	METALS* 8A 6020D SIM								MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-5-110212	11/2/12 1024		X	X	X	X									W	7		
2	MW-6-110212	0947		X	X	X	X									W	7		
3	MW-7-110212	1118		X	X	X	X									W	7		
4	MW-8-110212	0856		X	X	X	X									W	7		
5	MW-15-110212	1215		X	X	X	X									W	7		
6																			
7																			
8																			
9																			
10																			

RELEASED BY: KATIE HALL — DATE: 11/2/12
PRINT NAME: KATIE HALL — FIRM: GET — TIME: 1800
RECEIVED BY: Cat Stapleton — DATE: 11-5-12
PRINT NAME: — FIRM: TestAmerica — TIME: 1626

RELEASED BY: Brent Reusen — DATE: 11-5-12
PRINT NAME: Brent Reusen — FIRM: GET — TIME: 16:26
RECEIVED BY: — DATE:
PRINT NAME: — FIRM: — TIME:

ADDITIONAL REMARKS:
* METALS = IRON, MANGANESE, CHROMIUM III, + ARSENIC

TEMP: 33

PAGE 1 OF 1

TAL-1000 (0212)

TestAmerica Spokane
Sample Receipt Form

Work Order #: BYK0018	Client: GeoEngineers	Project: Robb
Date/Time Received: 11-5-12 16:26	By: CS	

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

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

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

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

Temperature by IR Gun: 33 °C Thermometer Serial #81500 (acceptance criteria 0-6 °C)

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

Log-In Phase Date/Time: 11-5-12 16:26 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)	X			
Are dissolved parameters field filtered			X	
Do any samples need to be filtered or preserved by the lab			X	
Does this project require quick turnaround analysis			X	
Are there any short hold time tests (see chart below)		X		
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated # _____			X	

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

TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: SWB0157
Client Project/Site: 0504-060-02
Client Project Description: Roby's Station - Buena

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

Attn: Dave Lauder

Authorized for release by:
3/8/2013 3:19:00 PM

Randee Decker
Project Manager
Randee.Decker@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWB0157-01	MW-22 (6.5)	Soil	02/18/13 11:59	02/28/13 10:00
SWB0157-04	MW-24 (5.5)	Soil	02/19/13 08:30	02/28/13 10:00
SWB0157-05	MW-24 (10.5)	Soil	02/19/13 08:50	02/28/13 10:00
SWB0157-06	MW-25 (5.5)	Soil	02/19/13 13:51	02/28/13 10:00
SWB0157-08	Drum-NE-022013	Water	02/20/13 14:50	02/28/13 10:00
SWB0157-09	Drum-S1-022013	Water	02/20/13 14:57	02/28/13 10:00
SWB0157-10	Drum-S2-022013	Water	02/20/13 15:00	02/28/13 10:00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
B	Analyte was detected in the associated Method Blank.
S2	Compound is a common lab solvent and contaminant.

Fuels

Qualifier	Qualifier Description
R3	The RPD exceeded the acceptance limit due to sample matrix effects.

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)
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)
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: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-22 (6.5)
Date Collected: 02/18/13 11:59
Date Received: 02/28/13 10:00

Lab Sample ID: SWB0157-01
Matrix: Soil
Percent Solids: 53.9

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**134**		16.7		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 15:23*	*1.00*
Toluene-d8	*117*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 15:23*	*1.00*
4-bromofluorobenzene	*125*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 15:23*	*1.00*

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Chloromethane	ND		1.67		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Vinyl chloride	ND		0.200		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Bromomethane	ND		1.67		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Chloroethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Trichlorofluoromethane	ND		0.100		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1-Dichloroethene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Carbon disulfide	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Methylene chloride	ND	B	0.0667		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Acetone	ND		10.0		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
trans-1,2-Dichloroethene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Methyl tert-butyl ether	ND		0.167		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1-Dichloroethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
cis-1,2-Dichloroethene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
2,2-Dichloropropane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Bromochloromethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Chloroform	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Carbon tetrachloride	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1,1-Trichloroethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
2-Butanone	ND		3.34		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1-Dichloropropene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Benzene	**0.690**		0.0500		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2-Dichloroethane (EDC)	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Trichloroethene	ND		0.0834		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Dibromomethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2-Dichloropropane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Bromodichloromethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
cis-1,3-Dichloropropene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Toluene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
4-Methyl-2-pentanone	ND		3.34		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
trans-1,3-Dichloropropene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Tetrachloroethene	ND		0.133		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1,2-Trichloroethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Dibromochloromethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,3-Dichloropropane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2-Dibromoethane	ND		0.0334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
2-Hexanone	ND		3.34		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Ethylbenzene	**0.367**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Chlorobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1,1,2-Tetrachloroethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
m,p-Xylene	**1.81**		1.33		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-22 (6.5)

Lab Sample ID: SWB0157-01

Date Collected: 02/18/13 11:59
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 53.9

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.667		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Styrene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Bromoform	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Isopropylbenzene	**0.594**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
n-Propylbenzene	**1.06**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,1,2,2-Tetrachloroethane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Bromobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,3,5-Trimethylbenzene	**2.04**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
2-Chlorotoluene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2,3-Trichloropropane	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
4-Chlorotoluene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
tert-Butylbenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2,4-Trimethylbenzene	**6.78**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
sec-Butylbenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
p-Isopropyltoluene	**0.579**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,3-Dichlorobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,4-Dichlorobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
n-Butylbenzene	**0.527**		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2-Dichlorobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2-Dibromo-3-chloropropane	ND		1.67		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Hexachlorobutadiene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2,4-Trichlorobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
Naphthalene	**1.71**		0.667		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00
1,2,3-Trichlorobenzene	ND		0.334		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 15:23*	*1.00*
Toluene-d8	*117*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 15:23*	*1.00*
4-bromofluorobenzene	*125*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 15:23*	*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	**74.4**		18.0		mg/kg dry	☼	03/01/13 11:54	03/01/13 15:30	1.00
Heavy Oil Range Hydrocarbons	**89.6**		45.0		mg/kg dry	☼	03/01/13 11:54	03/01/13 15:30	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*107*		*50 - 150*	*03/01/13 11:54*	*03/01/13 15:30*	*1.00*
n-Triacontane-d62	*105*		*50 - 150*	*03/01/13 11:54*	*03/01/13 15:30*	*1.00*

Client Sample ID: MW-24 (5.5)

Lab Sample ID: SWB0157-04

Date Collected: 02/19/13 08:30
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 68.9

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		10.1		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 15:47*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 15:47*	*1.00*
4-bromofluorobenzene	*108*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 15:47*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-24 (5.5)
Date Collected: 02/19/13 08:30
Date Received: 02/28/13 10:00

Lab Sample ID: SWB0157-04
Matrix: Soil
Percent Solids: 68.9

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Chloromethane	ND		1.01		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Vinyl chloride	ND		0.121		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Bromomethane	ND		1.01		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Chloroethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Trichlorofluoromethane	ND		0.0605		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1-Dichloroethene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Carbon disulfide	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Methylene chloride	**0.133**	**B S2**	0.0403		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Acetone	ND		6.05		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
trans-1,2-Dichloroethene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Methyl tert-butyl ether	ND		0.101		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1-Dichloroethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
cis-1,2-Dichloroethene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
2,2-Dichloropropane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Bromochloromethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Chloroform	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Carbon tetrachloride	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1,1-Trichloroethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
2-Butanone	ND		2.02		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1-Dichloropropene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Benzene	ND		0.0302		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2-Dichloroethane (EDC)	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Trichloroethene	ND		0.0504		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Dibromomethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2-Dichloropropane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Bromodichloromethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
cis-1,3-Dichloropropene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Toluene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
4-Methyl-2-pentanone	ND		2.02		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
trans-1,3-Dichloropropene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Tetrachloroethene	ND		0.0806		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1,2-Trichloroethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Dibromochloromethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,3-Dichloropropane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2-Dibromoethane	ND		0.0202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
2-Hexanone	ND		2.02		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Ethylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Chlorobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1,1,2-Tetrachloroethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
m,p-Xylene	ND		0.806		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
o-Xylene	ND		0.403		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Styrene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Bromoform	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Isopropylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
n-Propylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,1,2,2-Tetrachloroethane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Bromobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,3,5-Trimethylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-24 (5.5)

Lab Sample ID: SWB0157-04

Date Collected: 02/19/13 08:30
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 68.9

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2,3-Trichloropropane	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
4-Chlorotoluene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
tert-Butylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2,4-Trimethylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
sec-Butylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
p-Isopropyltoluene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,3-Dichlorobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,4-Dichlorobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
n-Butylbenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2-Dichlorobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2-Dibromo-3-chloropropane	ND		1.01		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Hexachlorobutadiene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2,4-Trichlorobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
Naphthalene	ND		0.403		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00
1,2,3-Trichlorobenzene	ND		0.202		mg/kg dry	☼	03/01/13 11:04	03/01/13 15:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 15:47*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 15:47*	*1.00*
4-bromofluorobenzene	*108*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 15:47*	*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		14.1		mg/kg dry	☼	03/01/13 11:54	03/01/13 16:21	1.00
Heavy Oil Range Hydrocarbons	ND		35.3		mg/kg dry	☼	03/01/13 11:54	03/01/13 16:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*111*		*50 - 150*	*03/01/13 11:54*	*03/01/13 16:21*	*1.00*
n-Triacontane-d62	*111*		*50 - 150*	*03/01/13 11:54*	*03/01/13 16:21*	*1.00*

Client Sample ID: MW-24 (10.5)

Lab Sample ID: SWB0157-05

Date Collected: 02/19/13 08:50
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 84

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**14.6**		5.60		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 16:11*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 16:11*	*1.00*
4-bromofluorobenzene	*110*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 16:11*	*1.00*

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Chloromethane	ND		0.560		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Vinyl chloride	ND		0.0671		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Bromomethane	ND		0.560		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Chloroethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-24 (10.5)
Date Collected: 02/19/13 08:50
Date Received: 02/28/13 10:00

Lab Sample ID: SWB0157-05
Matrix: Soil
Percent Solids: 84

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		0.0336		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1-Dichloroethene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Carbon disulfide	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Methylene chloride	ND	B	0.0224		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Acetone	ND		3.36		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
trans-1,2-Dichloroethene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Methyl tert-butyl ether	ND		0.0560		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1-Dichloroethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
cis-1,2-Dichloroethene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
2,2-Dichloropropane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Bromochloromethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Chloroform	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Carbon tetrachloride	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1,1-Trichloroethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
2-Butanone	ND		1.12		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1-Dichloropropene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Benzene	ND		0.0168		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2-Dichloroethane (EDC)	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Trichloroethene	ND		0.0280		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Dibromomethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2-Dichloropropane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Bromodichloromethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
cis-1,3-Dichloropropene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Toluene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
4-Methyl-2-pentanone	ND		1.12		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
trans-1,3-Dichloropropene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Tetrachloroethene	ND		0.0448		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1,2-Trichloroethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Dibromochloromethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,3-Dichloropropane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2-Dibromoethane	ND		0.0112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
2-Hexanone	ND		1.12		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Ethylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Chlorobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1,1,2-Tetrachloroethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
m,p-Xylene	ND		0.448		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
o-Xylene	ND		0.224		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Styrene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Bromoform	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Isopropylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
n-Propylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,1,2,2-Tetrachloroethane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Bromobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,3,5-Trimethylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
2-Chlorotoluene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2,3-Trichloropropane	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
4-Chlorotoluene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
tert-Butylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2,4-Trimethylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-24 (10.5)

Lab Sample ID: SWB0157-05

Date Collected: 02/19/13 08:50
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 84

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
p-Isopropyltoluene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,3-Dichlorobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,4-Dichlorobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
n-Butylbenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2-Dichlorobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2-Dibromo-3-chloropropane	ND		0.560		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Hexachlorobutadiene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2,4-Trichlorobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
Naphthalene	ND		0.224		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00
1,2,3-Trichlorobenzene	ND		0.112		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 16:11*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 16:11*	*1.00*
4-bromofluorobenzene	*110*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 16:11*	*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	**30.4**		11.8		mg/kg dry	☼	03/01/13 11:54	03/01/13 16:39	1.00
Heavy Oil Range Hydrocarbons	ND		29.5		mg/kg dry	☼	03/01/13 11:54	03/01/13 16:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*108*		*50 - 150*	*03/01/13 11:54*	*03/01/13 16:39*	*1.00*
n-Triacontane-d62	*111*		*50 - 150*	*03/01/13 11:54*	*03/01/13 16:39*	*1.00*

Client Sample ID: MW-25 (5.5)

Lab Sample ID: SWB0157-06

Date Collected: 02/19/13 13:51
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 84.7

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.17		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 16:34*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 16:34*	*1.00*
4-bromofluorobenzene	*106*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 16:34*	*1.00*

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Chloromethane	ND		0.617		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Vinyl chloride	ND		0.0741		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Bromomethane	ND		0.617		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Chloroethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Trichlorofluoromethane	ND		0.0370		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1-Dichloroethene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Carbon disulfide	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Methylene chloride	ND	B	0.0247		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Acetone	ND		3.70		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: MW-25 (5.5)
Date Collected: 02/19/13 13:51
Date Received: 02/28/13 10:00

Lab Sample ID: SWB0157-06
Matrix: Soil
Percent Solids: 84.7

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Methyl tert-butyl ether	ND		0.0617		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1-Dichloroethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
cis-1,2-Dichloroethene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
2,2-Dichloropropane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Bromochloromethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Chloroform	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Carbon tetrachloride	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1,1-Trichloroethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
2-Butanone	ND		1.23		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1-Dichloropropene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Benzene	ND		0.0185		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2-Dichloroethane (EDC)	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Trichloroethene	ND		0.0309		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Dibromomethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2-Dichloropropane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Bromodichloromethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
cis-1,3-Dichloropropene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Toluene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
4-Methyl-2-pentanone	ND		1.23		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
trans-1,3-Dichloropropene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Tetrachloroethene	ND		0.0494		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1,2-Trichloroethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Dibromochloromethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,3-Dichloropropane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2-Dibromoethane	ND		0.0123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
2-Hexanone	ND		1.23		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Ethylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Chlorobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1,1,2-Tetrachloroethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
m,p-Xylene	ND		0.494		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
o-Xylene	ND		0.247		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Styrene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Bromoform	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Isopropylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
n-Propylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,1,2,2-Tetrachloroethane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Bromobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,3,5-Trimethylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
2-Chlorotoluene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2,3-Trichloropropane	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
4-Chlorotoluene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
tert-Butylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2,4-Trimethylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
sec-Butylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
p-Isopropyltoluene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,3-Dichlorobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,4-Dichlorobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
n-Butylbenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00

Client Sample ID: MW-25 (5.5)

Lab Sample ID: SWB0157-06

Date Collected: 02/19/13 13:51
Matrix: Soil
Date Received: 02/28/13 10:00
Percent Solids: 84.7

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2-Dibromo-3-chloropropane	ND		0.617		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Hexachlorobutadiene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2,4-Trichlorobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
Naphthalene	ND		0.247		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00
1,2,3-Trichlorobenzene	ND		0.123		mg/kg dry	☼	03/01/13 11:04	03/01/13 16:34	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 16:34*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 16:34*	*1.00*
4-bromofluorobenzene	*106*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 16:34*	*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		11.7		mg/kg dry	☼	03/01/13 11:54	03/01/13 16:56	1.00
Heavy Oil Range Hydrocarbons	ND		29.3		mg/kg dry	☼	03/01/13 11:54	03/01/13 16:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*109*		*50 - 150*	*03/01/13 11:54*	*03/01/13 16:56*	*1.00*
n-Triacontane-d62	*116*		*50 - 150*	*03/01/13 11:54*	*03/01/13 16:56*	*1.00*

Client Sample ID: Drum-NE-022013

Lab Sample ID: SWB0157-08

Date Collected: 02/20/13 14:50
Matrix: Water
Date Received: 02/28/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.420**		0.200		ug/l		03/04/13 10:35	03/04/13 23:17	1.00
Toluene	ND		0.500		ug/l		03/04/13 10:35	03/04/13 23:17	1.00
Ethylbenzene	**3.65**		0.500		ug/l		03/04/13 10:35	03/04/13 23:17	1.00
m,p-Xylene	**7.70**		0.500		ug/l		03/04/13 10:35	03/04/13 23:17	1.00
o-Xylene	**3.41**		0.500		ug/l		03/04/13 10:35	03/04/13 23:17	1.00
Xylenes (total)	**11.1**		1.50		ug/l		03/04/13 10:35	03/04/13 23:17	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 23:17*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 23:17*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 23:17*	*1.00*

Client Sample ID: Drum-S1-022013

Lab Sample ID: SWB0157-09

Date Collected: 02/20/13 14:57
Matrix: Water
Date Received: 02/28/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.55**		0.200		ug/l		03/04/13 10:35	03/04/13 23:41	1.00
Toluene	ND		0.500		ug/l		03/04/13 10:35	03/04/13 23:41	1.00
Ethylbenzene	**7.77**		0.500		ug/l		03/04/13 10:35	03/04/13 23:41	1.00
m,p-Xylene	**9.72**		0.500		ug/l		03/04/13 10:35	03/04/13 23:41	1.00
o-Xylene	**1.77**		0.500		ug/l		03/04/13 10:35	03/04/13 23:41	1.00
Xylenes (total)	**11.5**		1.50		ug/l		03/04/13 10:35	03/04/13 23:41	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: Drum-S1-022013

Lab Sample ID: SWB0157-09

Date Collected: 02/20/13 14:57

Matrix: Water

Date Received: 02/28/13 10:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*104*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 23:41*	*1.00*
Toluene-d8	*115*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 23:41*	*1.00*
4-bromofluorobenzene	*111*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 23:41*	*1.00*

Client Sample ID: Drum-S2-022013

Lab Sample ID: SWB0157-10

Date Collected: 02/20/13 15:00

Matrix: Water

Date Received: 02/28/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.82**		0.200		ug/l		03/04/13 10:35	03/05/13 00:04	1.00
Toluene	**25.8**		0.500		ug/l		03/04/13 10:35	03/05/13 00:04	1.00
Ethylbenzene	**34.0**		0.500		ug/l		03/04/13 10:35	03/05/13 00:04	1.00
m,p-Xylene	**22.4**		0.500		ug/l		03/04/13 10:35	03/05/13 00:04	1.00
o-Xylene	**1.39**		0.500		ug/l		03/04/13 10:35	03/05/13 00:04	1.00
Xylenes (total)	**23.7**		1.50		ug/l		03/04/13 10:35	03/05/13 00:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/05/13 00:04*	*1.00*
Toluene-d8	*130*		*74.1 - 135*	*03/04/13 10:35*	*03/05/13 00:04*	*1.00*
4-bromofluorobenzene	*134*		*68.7 - 141*	*03/04/13 10:35*	*03/05/13 00:04*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 13C0006-BLK1
Matrix: Soil
Analysis Batch: 13C0006

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0006_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 14:13*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 14:13*	*1.00*
4-bromofluorobenzene	*107*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 14:13*	*1.00*

Lab Sample ID: 13C0006-BS1
Matrix: Soil
Analysis Batch: 13C0006

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13C0006_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons			50.0	47.4		mg/kg wet		94.8	74.4 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*106*		*42.4 - 163*
Toluene-d8	*113*		*45.8 - 155*
4-bromofluorobenzene	*110*		*41.5 - 162*

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

Lab Sample ID: 13C0012-BLK1
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.500		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Toluene	ND		0.500		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Ethylbenzene	ND		0.500		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
m,p-Xylene	ND		0.500		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
o-Xylene	ND		0.500		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Xylenes (total)	ND		1.50		ug/l		03/04/13 10:35	03/04/13 14:12	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*
4-bromofluorobenzene	*110*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*

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

Lab Sample ID: 13C0012-BS2
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	10.0	10.4		ug/l		104	80.1 - 128
Benzene	10.0	10.2		ug/l		102	84.2 - 122
Toluene	10.0	10.3		ug/l		103	85.8 - 123
Ethylbenzene	10.0	10.3		ug/l		103	83.6 - 111
m,p-Xylene	20.0	21.2		ug/l		106	86.4 - 115
o-Xylene	10.0	11.0		ug/l		110	90.2 - 116
Naphthalene	10.0	11.3		ug/l		113	62.8 - 132
Xylenes (total)	30.0	32.2		ug/l		107	91.4 - 114

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*107*		*71.2 - 143*
Toluene-d8	*113*		*74.1 - 135*
4-bromofluorobenzene	*107*		*68.7 - 141*

Lab Sample ID: 13C0012-MS2
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.960		10.0	11.8		ug/l		108	44.3 - 150
Benzene	ND		10.0	10.8		ug/l		108	72.3 - 120
Toluene	ND		10.0	10.8		ug/l		108	62.7 - 137
Ethylbenzene	0.240		10.0	10.7		ug/l		105	71.2 - 128
m,p-Xylene	0.320		20.0	22.2		ug/l		110	70 - 134
o-Xylene	0.150		10.0	11.6		ug/l		114	78.5 - 120
Naphthalene	1.05		10.0	14.3		ug/l		133	45.4 - 150
Xylenes (total)	ND		30.0	33.8		ug/l		113	80 - 130

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*105*		*71.2 - 143*
Toluene-d8	*109*		*74.1 - 135*
4-bromofluorobenzene	*108*		*68.7 - 141*

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C

Lab Sample ID: 13C0006-BLK1
Matrix: Soil
Analysis Batch: 13C0006

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0006_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Chloromethane	ND		0.500		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Vinyl chloride	ND		0.0600		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Bromomethane	ND		0.500		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Chloroethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Trichlorofluoromethane	ND		0.0300		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1-Dichloroethene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Lab Sample ID: 13C0006-BLK1
Matrix: Soil
Analysis Batch: 13C0006

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0006_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Methylene chloride	0.0360	B	0.0200		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Acetone	ND		3.00		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
trans-1,2-Dichloroethene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Methyl tert-butyl ether	ND		0.0500		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1-Dichloroethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
cis-1,2-Dichloroethene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
2,2-Dichloropropane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Bromochloromethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Chloroform	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Carbon tetrachloride	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1,1-Trichloroethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
2-Butanone	ND		1.00		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1-Dichloropropene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Benzene	ND		0.0150		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Trichloroethene	ND		0.0250		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Dibromomethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2-Dichloropropane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Bromodichloromethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
cis-1,3-Dichloropropene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Toluene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
4-Methyl-2-pentanone	ND		1.00		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
trans-1,3-Dichloropropene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Tetrachloroethene	ND		0.0400		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1,2-Trichloroethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Dibromochloromethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,3-Dichloropropane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2-Dibromoethane	ND		0.0100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
2-Hexanone	ND		1.00		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Ethylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Chlorobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1,1,2-Tetrachloroethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
m,p-Xylene	ND		0.400		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
o-Xylene	ND		0.200		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Styrene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Bromoform	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Isopropylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
n-Propylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,1,2,2-Tetrachloroethane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Bromobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,3,5-Trimethylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
2-Chlorotoluene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2,3-Trichloropropane	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
4-Chlorotoluene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
tert-Butylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2,4-Trimethylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
sec-Butylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Methods 5035/8260C (Continued)

Lab Sample ID: 13C0006-BLK1
Matrix: Soil
Analysis Batch: 13C0006

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0006_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,3-Dichlorobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,4-Dichlorobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
n-Butylbenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2-Dichlorobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2-Dibromo-3-chloropropane	ND		0.500		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Hexachlorobutadiene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2,4-Trichlorobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
Naphthalene	ND		0.200		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00
1,2,3-Trichlorobenzene	ND		0.100		mg/kg wet		03/01/13 11:04	03/01/13 14:13	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*42.4 - 163*	*03/01/13 11:04*	*03/01/13 14:13*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*03/01/13 11:04*	*03/01/13 14:13*	*1.00*
4-bromofluorobenzene	*107*		*41.5 - 162*	*03/01/13 11:04*	*03/01/13 14:13*	*1.00*

Lab Sample ID: 13C0006-BS2
Matrix: Soil
Analysis Batch: 13C0006

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13C0006_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	0.500	0.548		mg/kg wet		110	76 - 187
Benzene	0.500	0.535		mg/kg wet		107	75.9 - 123
Trichloroethene	0.500	0.544		mg/kg wet		109	82.7 - 116
Toluene	0.500	0.560		mg/kg wet		112	77.3 - 126
Chlorobenzene	0.500	0.549		mg/kg wet		110	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*105*		*42.4 - 163*
Toluene-d8	*111*		*45.8 - 155*
4-bromofluorobenzene	*105*		*41.5 - 162*

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

Lab Sample ID: 13C0007-BLK1
Matrix: Soil
Analysis Batch: 13C0007

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0007_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		03/01/13 11:54	03/01/13 14:37	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		03/01/13 11:54	03/01/13 14:37	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*112*		*50 - 150*	*03/01/13 11:54*	*03/01/13 14:37*	*1.00*
n-Triacontane-d62	*105*		*50 - 150*	*03/01/13 11:54*	*03/01/13 14:37*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 13C0007-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 13C0007 — **Prep Batch: 13C0007_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			83.3	74.0		mg/kg wet		88.8	73 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FBP	*107*		*50 - 150*
n-Triacontane-d62	*103*		*50 - 150*

Lab Sample ID: 13C0007-MS1 — **Client Sample ID: MW-22 (6.5)**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 13C0007 — **Prep Batch: 13C0007_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons	74.4		195	247		mg/kg dry	☼	88.9	70.1 - 139		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
2-FBP	*117*		*50 - 150*
n-Triacontane-d62	*106*		*50 - 150*

Lab Sample ID: 13C0007-DUP1 — **Client Sample ID: MW-22 (6.5)**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 13C0007 — **Prep Batch: 13C0007_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	74.4			153	R3	mg/kg dry	☼			69.4	40
Heavy Oil Range Hydrocarbons	89.6			228	R3	mg/kg dry	☼			87.2	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
2-FBP	*110*		*50 - 150*
n-Triacontane-d62	*109*		*50 - 150*

Client Sample ID: MW-22 (6.5)

Lab Sample ID: SWB0157-01

Date Collected: 02/18/13 11:59

Matrix: Soil

Date Received: 02/28/13 10:00

Percent Solids: 53.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.34	13C0006_P	03/01/13 11:04	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0006	03/01/13 15:23	CBW	TAL SPK
Total	Prep	EPA 3550B		0.970	13C0007_P	03/01/13 11:54	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13C0007	03/01/13 15:30	MS	TAL SPK
Total	Prep	Wet Chem		1.00	13C0049_P	03/01/13 15:05	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13C0049	03/08/13 12:13	MS	TAL SPK

Client Sample ID: MW-24 (5.5)

Lab Sample ID: SWB0157-04

Date Collected: 02/19/13 08:30

Matrix: Soil

Date Received: 02/28/13 10:00

Percent Solids: 68.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.08	13C0006_P	03/01/13 11:04	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0006	03/01/13 15:47	CBW	TAL SPK
Total	Prep	EPA 3550B		0.973	13C0007_P	03/01/13 11:54	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13C0007	03/01/13 16:21	MS	TAL SPK
Total	Prep	Wet Chem		1.00	13C0049_P	03/01/13 15:05	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13C0049	03/08/13 12:13	MS	TAL SPK

Client Sample ID: MW-24 (10.5)

Lab Sample ID: SWB0157-05

Date Collected: 02/19/13 08:50

Matrix: Soil

Date Received: 02/28/13 10:00

Percent Solids: 84

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.780	13C0006_P	03/01/13 11:04	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0006	03/01/13 16:11	CBW	TAL SPK
Total	Prep	EPA 3550B		0.992	13C0007_P	03/01/13 11:54	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13C0007	03/01/13 16:39	MS	TAL SPK
Total	Prep	Wet Chem		1.00	13C0049_P	03/01/13 15:05	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13C0049	03/08/13 12:13	MS	TAL SPK

Client Sample ID: MW-25 (5.5)

Lab Sample ID: SWB0157-06

Date Collected: 02/19/13 13:51

Matrix: Soil

Date Received: 02/28/13 10:00

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.893	13C0006_P	03/01/13 11:04	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0006	03/01/13 16:34	CBW	TAL SPK
Total	Prep	EPA 3550B		0.994	13C0007_P	03/01/13 11:54	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13C0007	03/01/13 16:56	MS	TAL SPK
Total	Prep	Wet Chem		1.00	13C0049_P	03/01/13 15:05	MS	TAL SPK
Total	Analysis	TA SOP		1.00	13C0049	03/08/13 12:13	MS	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Client Sample ID: Drum-NE-022013

Lab Sample ID: SWB0157-08

Date Collected: 02/20/13 14:50
Matrix: Water
Date Received: 02/28/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 23:17	CBW	TAL SPK

Client Sample ID: Drum-S1-022013

Lab Sample ID: SWB0157-09

Date Collected: 02/20/13 14:57
Matrix: Water
Date Received: 02/28/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 23:41	CBW	TAL SPK

Client Sample ID: Drum-S2-022013

Lab Sample ID: SWB0157-10

Date Collected: 02/20/13 15:00
Matrix: Water
Date Received: 02/28/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/05/13 00:04	CBW	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: 0504-060-02

TestAmerica Job ID: SWB0157

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	10-31-13
Washington	State Program	10	C569	01-06-14

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWB0157

Method	Method Description	Protocol	Laboratory
EPA 8260C	NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8260C	Volatile Organic Compounds by EPA Methods 5035/8260C		TAL SPK
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		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

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

CHAIN OF CUSTODY REPORT

Work Order #: SW80157

CLIENT: GEO ENGINEERS

INVOICE TO: GEO ENGINEERS
DAVE LAUER

REPORT TO: DAVE LAUER
ADDRESS: 523 E 2ND AVE
SPOKANE, WA 99202
PHONE: 509-363-3125 FAX: 509-363-3126

P.O. NUMBER:

PROJECT NAME: BLEAK PETROLEUM CONTAMINATION
ROSY'S STATION
PROJECT NUMBER: 0504-010-02

SAMPLED BY: KAH

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	VOCs EPA 8260	BTEX EPA 8021	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-22 (6.5)	2/18/13	1159		X	X	X		S	3		
2	MW-23 (5.5)		1412		X	X	X			1		
3	MW-23 (10.5)		1432							1		
4	MW-24 (5.5)	2/19/13	0830		X	X	X			3		
5	MW-24 (10.5)		0850		X	X	X			3		
6	MW-25 (5.5)		1351		X	X	X			3		
7	MW-25 (8.5)		1358							3		
8	DRUM-NE-022013	2/20/13	1450					X	W	2		
9	DRUM-SI-022013		1457					X	W	2		
10	DRUM-S2-022013		1500					X	W	2		

RELEASED BY:	KATIE HALL	DATE:	2/25/13	RECEIVED BY:	David Lauer	DATE: 2/25/13
PRINT NAME:	KATIE HALL	FIRM: GET	TIME: 1600	PRINT NAME:	David Lauer	FIRM: GET TIME: 1600
RELEASED BY:		DATE:	2/28/13	RECEIVED BY:		DATE: 2/28/13
PRINT NAME:	David Lauer	FIRM: GET	TIME: 1000	PRINT NAME:		FIRM: FX TIME: 10:00

ADDITIONAL REMARKS:

TEMP: 5.6

PAGE OF

TAL-1000(0408)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SNB0157	Client: GeoEngineers	Project: Bulena Petroleum Cont. Robys
Date/Time Received: 2-28-13 10:00	By: FS	

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

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

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

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

Temperature: 5.6 °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: 2-28-13 10:38 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			Sample -02 no voas for test requested
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)	X			
Are dissolved parameters field filtered			X	
Do any samples need to be filtered or preserved by the lab		X		
Does this project require quick turnaround analysis		X		
Are there any short hold time tests (see chart below)		X		
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated # _____			X	

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

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: SWB0138
Client Project/Site: 000504-060-02
Client Project Description: Roby's Station - Buena

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

Attn: Dave Lauder

Authorized for release by:
3/20/2013 1:43:49 PM
Chris Williams
Lab Director
Chris.Williams@testamericainc.com

Designee for

Randee Decker
Project Manager
Randee.Decker@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWB0138-01	MW-22-022513	Water	02/25/13 11:40	02/26/13 12:51
SWB0138-02	MW-23-022513	Water	02/25/13 13:06	02/26/13 12:51
SWB0138-03	MW-24-022513	Water	02/25/13 15:07	02/26/13 12:51
SWB0138-04	MW-08-022513	Water	02/25/13 13:44	02/26/13 12:51
SWB0138-05	MW-07-022513	Water	02/25/13 15:00	02/26/13 12:51
SWB0138-06	MW-09-022513	Water	02/25/13 17:48	02/26/13 12:51
SWB0138-07	MW-15-022513	Water	02/25/13 17:16	02/26/13 12:51
SWB0138-08	MW-05-022513	Water	02/25/13 13:12	02/26/13 12:51
SWB0138-09	MW-06-022513	Water	02/25/13 14:12	02/26/13 12:51
SWB0138-10	MW-25-022513	Water	02/25/13 16:30	02/26/13 12:51
SWB0138-11	Duplicate-1-022513	Water	02/25/13 12:34	02/26/13 12:51
SWB0138-12	Trip Blank	Water	02/22/13 00:00	02/26/13 12:51

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Wet Chem

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.

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)
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)
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: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-22-022513
Date Collected: 02/25/13 11:40
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-01
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 15:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 15:47*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 15:47*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 15:47*	*1.00*

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		03/04/13 10:35	03/04/13 15:47	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-22-022513
Date Collected: 02/25/13 11:40
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-01
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 15:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 15:47*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 15:47*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 15:47*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 16:32	1.00
Heavy Oil Range Hydrocarbons	ND		0.381		mg/l		02/28/13 11:28	02/28/13 16:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*99.5*		*50 - 150*	*02/28/13 11:28*	*02/28/13 16:32*	*1.00*
n-Triacontane-d62	*89.6*		*50 - 150*	*02/28/13 11:28*	*02/28/13 16:32*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 10:26	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.80**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**2.05**		0.200		mg/l		02/27/13 07:46	02/27/13 08:54	1.00
Sulfate	**35.2**		0.500		mg/l		02/27/13 07:46	02/27/13 08:54	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-23-022513
Date Collected: 02/25/13 13:06
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-02
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 16:34	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 16:34*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 16:34*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 16:34*	*1.00*

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		03/04/13 10:35	03/04/13 16:34	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Benzene	**2.86**		0.200		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-23-022513
Date Collected: 02/25/13 13:06
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-02
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:34	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 16:34*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 16:34*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 16:34*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 16:49	1.00
Heavy Oil Range Hydrocarbons	ND		0.381		mg/l		02/28/13 11:28	02/28/13 16:49	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*97.2*		*50 - 150*	*02/28/13 11:28*	*02/28/13 16:49*	*1.00*
n-Triacontane-d62	*87.8*		*50 - 150*	*02/28/13 11:28*	*02/28/13 16:49*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 10:39	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.29**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		02/27/13 07:46	02/27/13 09:12	1.00
Sulfate	**39.3**		0.500		mg/l		02/27/13 07:46	02/27/13 09:12	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-24-022513
Date Collected: 02/25/13 15:07
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-03
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**239**		100		ug/l		03/04/13 10:35	03/04/13 16:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 16:58*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 16:58*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 16:58*	*1.00*

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		03/04/13 10:35	03/04/13 16:58	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Benzene	**1.39**		0.200		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Ethylbenzene	**1.19**		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
m,p-Xylene	**17.6**		2.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-24-022513
Date Collected: 02/25/13 15:07
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-03
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	**13.5**		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,3,5-Trimethylbenzene	**2.69**		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2,4-Trimethylbenzene	**10.5**		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
Naphthalene	**4.79**		2.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 16:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 16:58*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 16:58*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 16:58*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 17:06	1.00
Heavy Oil Range Hydrocarbons	ND		0.381		mg/l		02/28/13 11:28	02/28/13 17:06	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*102*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:06*	*1.00*
n-Triacontane-d62	*91.2*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:06*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 10:42	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.19**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**5.42**		0.200		mg/l		02/27/13 07:46	02/27/13 09:31	1.00
Sulfate	**101**		2.00		mg/l		02/27/13 07:46	02/27/13 13:21	4.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-08-022513
Date Collected: 02/25/13 13:44
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-04
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 17:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 17:21*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 17:21*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 17:21*	*1.00*

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		03/04/13 10:35	03/04/13 17:21	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-08-022513
Date Collected: 02/25/13 13:44
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-04
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 17:21*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 17:21*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 17:21*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 17:24	1.00
Heavy Oil Range Hydrocarbons	ND		0.381		mg/l		02/28/13 11:28	02/28/13 17:24	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*97.8*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:24*	*1.00*
n-Triacontane-d62	*88.3*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:24*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 10:44	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.46**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**0.510**		0.200		mg/l		02/27/13 07:46	02/27/13 09:51	1.00
Sulfate	**32.1**		0.500		mg/l		02/27/13 07:46	02/27/13 09:51	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-07-022513
Date Collected: 02/25/13 15:00
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-05
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 17:45	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 17:45*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 17:45*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 17:45*	*1.00*

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		03/04/13 10:35	03/04/13 17:45	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Benzene	**0.380**		0.200		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-07-022513
Date Collected: 02/25/13 15:00
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-05
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 17:45	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 17:45*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 17:45*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 17:45*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 17:41	1.00
Heavy Oil Range Hydrocarbons	ND		0.380		mg/l		02/28/13 11:28	02/28/13 17:41	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*96.7*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:41*	*1.00*
n-Triacontane-d62	*88.4*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:41*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 10:57	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.96**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		02/27/13 07:46	02/27/13 10:10	1.00
Sulfate	**136**		5.00		mg/l		02/27/13 07:46	02/27/13 13:40	10.0

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-09-022513
Date Collected: 02/25/13 17:48
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-06
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 18:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 18:09*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 18:09*	*1.00*
4-bromofluorobenzene	*105*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 18:09*	*1.00*

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		03/04/13 10:35	03/04/13 18:09	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-09-022513
Date Collected: 02/25/13 17:48
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-06
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 18:09*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 18:09*	*1.00*
4-bromofluorobenzene	*105*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 18:09*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 17:58	1.00
Heavy Oil Range Hydrocarbons	ND		0.380		mg/l		02/28/13 11:28	02/28/13 17:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*103*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:58*	*1.00*
n-Triacontane-d62	*92.5*		*50 - 150*	*02/28/13 11:28*	*02/28/13 17:58*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 11:00	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.22**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**1.76**		0.200		mg/l		02/27/13 07:46	02/27/13 10:29	1.00
Sulfate	**58.3**		1.00		mg/l		02/27/13 07:46	02/27/13 13:59	2.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-15-022513
Date Collected: 02/25/13 17:16
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-07
Matrix: Water

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**105**		100		ug/l		03/04/13 10:35	03/04/13 18:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 18:32*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 18:32*	*1.00*
4-bromofluorobenzene	*115*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 18:32*	*1.00*

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		03/04/13 10:35	03/04/13 18:32	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Carbon disulfide	**3.05**		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Acetone	**51.3**		25.0		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Tetrachloroethene	**6.58**		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-15-022513
Date Collected: 02/25/13 17:16
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-07
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
p-Isopropyltoluene	**25.9**		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 18:32*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 18:32*	*1.00*
4-bromofluorobenzene	*115*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 18:32*	*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	**1.19**		0.239		mg/l		02/28/13 11:28	03/18/13 14:42	1.00
Heavy Oil Range Hydrocarbons	**1.43**		0.382		mg/l		02/28/13 11:28	03/18/13 14:42	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*91.2*		*50 - 150*	*02/28/13 11:28*	*03/18/13 14:42*	*1.00*
n-Triacontane-d62	*87.7*		*50 - 150*	*02/28/13 11:28*	*03/18/13 14:42*	*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	**7.55**		0.239		mg/l		02/28/13 11:28	02/28/13 18:15	1.00
Heavy Oil Range Hydrocarbons	**7.88**		0.382		mg/l		02/28/13 11:28	02/28/13 18:15	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*93.5*		*50 - 150*	*02/28/13 11:28*	*02/28/13 18:15*	*1.00*
n-Triacontane-d62	*88.0*		*50 - 150*	*02/28/13 11:28*	*02/28/13 18:15*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 11:02	1.00

Client Sample ID: MW-15-022513

Lab Sample ID: SWB0138-07

Date Collected: 02/25/13 17:16

Matrix: Water

Date Received: 02/26/13 12:51

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	79.3		5.00		mg/L			03/04/13 16:12	5

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	0.210		0.200		mg/l		02/27/13 07:46	02/27/13 10:48	1.00
Sulfate	3.77		0.500		mg/l		02/27/13 07:46	02/27/13 10:48	1.00

Client Sample ID: MW-05-022513

Lab Sample ID: SWB0138-08

Date Collected: 02/25/13 13:12

Matrix: Water

Date Received: 02/26/13 12:51

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 18:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 18:55*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 18:55*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 18:55*	*1.00*

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		03/04/13 10:35	03/04/13 18:55	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00

Client Sample ID: MW-05-022513
Date Collected: 02/25/13 13:12
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-08
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 18:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 18:55*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 18:55*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 18:55*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 19:06	1.00
Heavy Oil Range Hydrocarbons	ND		0.380		mg/l		02/28/13 11:28	02/28/13 19:06	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*96.2*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:06*	*1.00*

Client Sample ID: MW-05-022513

Lab Sample ID: SWB0138-08

Date Collected: 02/25/13 13:12

Matrix: Water

Date Received: 02/26/13 12:51

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Triacontane-d62	*87.6*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:06*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 11:05	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**9.91**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**0.230**		0.200		mg/l		02/27/13 07:46	02/27/13 13:02	1.00
Sulfate	**24.2**		0.500		mg/l		02/27/13 07:46	02/27/13 13:02	1.00

Client Sample ID: MW-06-022513

Lab Sample ID: SWB0138-09

Date Collected: 02/25/13 14:12

Matrix: Water

Date Received: 02/26/13 12:51

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 19:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 19:19*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 19:19*	*1.00*
4-bromofluorobenzene	*105*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 19:19*	*1.00*

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		03/04/13 10:35	03/04/13 19:19	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 19:19	1.00

Client Sample ID: MW-06-022513
Date Collected: 02/25/13 14:12
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-09
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 19:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 19:19*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 19:19*	*1.00*
4-bromofluorobenzene	*105*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 19:19*	*1.00*

Client Sample ID: MW-06-022513

Lab Sample ID: SWB0138-09

Date Collected: 02/25/13 14:12

Matrix: Water

Date Received: 02/26/13 12:51

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		02/28/13 11:28	02/28/13 19:23	1.00
Heavy Oil Range Hydrocarbons	ND		0.382		mg/l		02/28/13 11:28	02/28/13 19:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*95.9*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:23*	*1.00*
n-Triacontane-d62	*86.3*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:23*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 11:08	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.29**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**1.73**		0.200		mg/l		02/27/13 07:46	02/27/13 11:26	1.00
Sulfate	**37.6**		0.500		mg/l		02/27/13 07:46	02/27/13 11:26	1.00

Client Sample ID: MW-25-022513

Lab Sample ID: SWB0138-10

Date Collected: 02/25/13 16:30

Matrix: Water

Date Received: 02/26/13 12:51

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 20:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 20:31*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 20:31*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 20:31*	*1.00*

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		03/04/13 10:35	03/04/13 20:31	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-25-022513
Date Collected: 02/25/13 16:30
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:31	1.00

Client Sample ID: MW-25-022513

Lab Sample ID: SWB0138-10

Date Collected: 02/25/13 16:30

Matrix: Water

Date Received: 02/26/13 12:51

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 20:31*	*1.00*
Toluene-d8	*108*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 20:31*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 20:31*	*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		02/28/13 11:28	02/28/13 19:41	1.00
Heavy Oil Range Hydrocarbons	ND		0.382		mg/l		02/28/13 11:28	02/28/13 19:41	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*97.2*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:41*	*1.00*
n-Triacontane-d62	*88.6*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:41*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 11:10	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.39**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		02/27/13 07:46	02/27/13 12:43	1.00
Sulfate	**29.2**		0.500		mg/l		02/27/13 07:46	02/27/13 12:43	1.00

Client Sample ID: Duplicate-1-022513

Lab Sample ID: SWB0138-11

Date Collected: 02/25/13 12:34

Matrix: Water

Date Received: 02/26/13 12:51

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**264**		100		ug/l		03/04/13 10:35	03/04/13 20:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 20:55*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 20:55*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 20:55*	*1.00*

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		03/04/13 10:35	03/04/13 20:55	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: Duplicate-1-022513
Date Collected: 02/25/13 12:34
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Benzene	**1.49**		0.200		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Ethylbenzene	**1.29**		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
m,p-Xylene	**19.0**		2.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
o-Xylene	**14.7**		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,3,5-Trimethylbenzene	**2.71**		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2,4-Trimethylbenzene	**11.2**		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00

Client Sample ID: Duplicate-1-022513

Lab Sample ID: SWB0138-11

Date Collected: 02/25/13 12:34

Matrix: Water

Date Received: 02/26/13 12:51

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
Naphthalene	**6.15**		2.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 20:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 20:55*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 20:55*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 20:55*	*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		0.238		mg/l		02/28/13 11:28	02/28/13 19:58	1.00
Heavy Oil Range Hydrocarbons	ND		0.380		mg/l		02/28/13 11:28	02/28/13 19:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*97.4*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:58*	*1.00*
n-Triacontane-d62	*88.3*		*50 - 150*	*02/28/13 11:28*	*02/28/13 19:58*	*1.00*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 11:13	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.14**		1.00		mg/L			03/01/13 13:40	1

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**5.27**		0.200		mg/l		02/27/13 07:46	02/27/13 11:45	1.00
Sulfate	**98.0**		5.00		mg/l		02/27/13 07:46	02/27/13 17:30	10.0

Client Sample ID: Trip Blank

Lab Sample ID: SWB0138-12

Date Collected: 02/22/13 00:00

Matrix: Water

Date Received: 02/26/13 12:51

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		03/04/13 10:35	03/04/13 21:18	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: Trip Blank
Date Collected: 02/22/13 00:00
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: Trip Blank
Date Collected: 02/22/13 00:00
Date Received: 02/26/13 12:51

Lab Sample ID: SWB0138-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 21:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 21:18*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 21:18*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 21:18*	*1.00*

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 13C0012-BLK1
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		03/04/13 10:35	03/04/13 14:12	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*
4-bromofluorobenzene	*110*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*

Lab Sample ID: 13C0012-BS1
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13C0012_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons			1000	1020		ug/l		102	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*104*		*71.2 - 143*
Toluene-d8	*113*		*74.1 - 135*
4-bromofluorobenzene	*111*		*68.7 - 141*

Lab Sample ID: 13C0012-MS1
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons	521		1000	1450		ug/l		92.9	55.6 - 126		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*105*		*71.2 - 143*
Toluene-d8	*112*		*74.1 - 135*
4-bromofluorobenzene	*110*		*68.7 - 141*

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

Lab Sample ID: 13C0012-BLK1
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Chloromethane	ND		3.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Vinyl chloride	ND		0.200		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Bromomethane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Chloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Trichlorofluoromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Carbon disulfide	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Methylene chloride	ND		10.0		ug/l		03/04/13 10:35	03/04/13 14:12	1.00

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

Lab Sample ID: 13C0012-BLK1
Matrix: Water
Analysis Batch: 13C0012

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0012_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25.0		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1-Dichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
2,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Bromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Chloroform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Carbon tetrachloride	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
2-Butanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Benzene	ND		0.200		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Trichloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Dibromomethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Bromodichloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Toluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Tetrachloroethene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Dibromochloromethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,3-Dichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dibromoethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
2-Hexanone	ND		10.0		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Ethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Chlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
m,p-Xylene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
o-Xylene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Styrene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Bromoform	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Isopropylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
n-Propylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Bromobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
2-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
4-Chlorotoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
tert-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
sec-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
p-Isopropyltoluene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00

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

Lab Sample ID: 13C0012-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0012 — **Prep Batch: 13C0012_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
n-Butylbenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Hexachlorobutadiene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
Naphthalene	ND		2.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		03/04/13 10:35	03/04/13 14:12	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*71.2 - 143*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*
4-bromofluorobenzene	*110*		*68.7 - 141*	*03/04/13 10:35*	*03/04/13 14:12*	*1.00*

Lab Sample ID: 13C0012-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0012 — **Prep Batch: 13C0012_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			10.0	10.2		ug/l		102	84.2 - 122		
Toluene			10.0	10.3		ug/l		103	85.8 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*107*		*71.2 - 143*
Toluene-d8	*113*		*74.1 - 135*
4-bromofluorobenzene	*107*		*68.7 - 141*

Lab Sample ID: 13C0012-BS3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0012 — **Prep Batch: 13C0012_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			10.0	11.8		ug/l		118	78.1 - 155		
Benzene			10.0	10.8		ug/l		108	84.2 - 122		
Trichloroethene			10.0	11.4		ug/l		114	74.8 - 123		
Toluene			10.0	10.9		ug/l		109	85.8 - 123		
Chlorobenzene			10.0	10.5		ug/l		105	79.2 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*106*		*71.2 - 143*
Toluene-d8	*113*		*74.1 - 135*
4-bromofluorobenzene	*109*		*68.7 - 141*

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

Lab Sample ID: 13C0012-MS2 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0012 — **Prep Batch: 13C0012_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		10.0	10.8		ug/l		108	72.3 - 120
Toluene	ND		10.0	10.8		ug/l		108	62.7 - 137

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*105*		*71.2 - 143*
Toluene-d8	*109*		*74.1 - 135*
4-bromofluorobenzene	*108*		*68.7 - 141*

Lab Sample ID: 13C0012-MS3 — **Client Sample ID: MW-22-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0012 — **Prep Batch: 13C0012_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		10.0	11.2		ug/l		112	52.5 - 135
Benzene	0.170		10.0	10.4		ug/l		102	72.3 - 120
Trichloroethene	ND		10.0	10.7		ug/l		107	80 - 120
Toluene	ND		10.0	10.0		ug/l		100	62.7 - 137
Chlorobenzene	ND		10.0	9.76		ug/l		97.6	78.9 - 120

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*109*		*71.2 - 143*
Toluene-d8	*110*		*74.1 - 135*
4-bromofluorobenzene	*109*		*68.7 - 141*

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

Lab Sample ID: 13B0154-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13B0154 — **Prep Batch: 13B0154_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.250		mg/l		02/28/13 11:28	03/18/13 18:43	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/l		02/28/13 11:28	03/18/13 18:43	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*120*		*50 - 150*	*02/28/13 11:28*	*03/18/13 18:43*	*1.00*
n-Triacontane-d62	*110*		*50 - 150*	*02/28/13 11:28*	*03/18/13 18:43*	*1.00*

Lab Sample ID: 13B0154-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13B0154 — **Prep Batch: 13B0154_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	2.50	2.27		mg/l		90.6	54.5 - 136

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

Lab Sample ID: 13B0154-BS1
Matrix: Water
Analysis Batch: 13B0154

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13B0154_P

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FBP	*107*		*50 - 150*
n-Triacontane-d62	*100*		*50 - 150*

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

Lab Sample ID: 13B0154-BLK1
Matrix: Water
Analysis Batch: 13B0154

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13B0154_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.250		mg/l		02/28/13 11:28	02/28/13 15:41	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/l		02/28/13 11:28	02/28/13 15:41	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*97.4*		*50 - 150*	*02/28/13 11:28*	*02/28/13 15:41*	*1.00*
n-Triacontane-d62	*88.8*		*50 - 150*	*02/28/13 11:28*	*02/28/13 15:41*	*1.00*

Lab Sample ID: 13B0154-BS1
Matrix: Water
Analysis Batch: 13B0154

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13B0154_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			2.50	2.08		mg/l		83.3	54.5 - 136		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FBP	*96.9*		*50 - 150*
n-Triacontane-d62	*90.7*		*50 - 150*

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods

Lab Sample ID: 13C0036-BLK1
Matrix: Water
Analysis Batch: 13C0036

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13C0036_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0300		mg/l		03/07/13 08:18	03/11/13 10:23	1.00

Lab Sample ID: 13C0036-BS1
Matrix: Water
Analysis Batch: 13C0036

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13C0036_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			1.00	1.01		mg/l		101	80 - 120		

Method: EPA 6010C - Total Metals by EPA 6010/7000 Series Methods (Continued)

Lab Sample ID: 13C0036-MS1 — **Client Sample ID: MW-22-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0036 — **Prep Batch: 13C0036_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		1.00	1.00		mg/l		100	75 - 125

Lab Sample ID: 13C0036-MSD1 — **Client Sample ID: MW-22-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0036 — **Prep Batch: 13C0036_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	1.01		mg/l		101	75 - 125	0.499	20

Lab Sample ID: 13C0036-DUP1 — **Client Sample ID: MW-22-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13C0036 — **Prep Batch: 13C0036_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		mg/l			20

Method: SM 5310C - TOC

Lab Sample ID: MB 490-62321/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62321

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.00		mg/L			03/01/13 13:40	1

Lab Sample ID: LCS 490-62321/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62321

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.61		mg/L		106	90 - 110
TOC Result 1	10.0	10.62		mg/L		106	90 - 110
TOC Result 2	10.0	10.59		mg/L		106	90 - 110

Lab Sample ID: 490-20452-D-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62321

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	3.23		20.0	16.10	F	mg/L		64	75 - 122
TOC Result 1	3.42		20.0	16.50	F	mg/L		65	75 - 122
TOC Result 2	3.04		20.0	15.71	F	mg/L		63	75 - 122

Lab Sample ID: 490-20479-9 MS — **Client Sample ID: SWB0138-09**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62321

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	2.29		20.0	22.74		mg/L		102	75 - 122

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 490-20479-9 MS
Matrix: Water
Analysis Batch: 62321

Client Sample ID: SWB0138-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	2.31		20.0	22.80		mg/L		102	75 - 122
TOC Result 2	2.27		20.0	22.68		mg/L		102	75 - 122

Lab Sample ID: MB 490-62680/6
Matrix: Water
Analysis Batch: 62680

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.00		mg/L			03/04/13 16:12	1

Lab Sample ID: LCS 490-62680/5
Matrix: Water
Analysis Batch: 62680

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.34		mg/L		103	90 - 110
TOC Result 1	10.0	10.34		mg/L		103	90 - 110
TOC Result 2	10.0	10.34		mg/L		103	90 - 110

Lab Sample ID: 490-20678-A-1 MS
Matrix: Water
Analysis Batch: 62680

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	ND		20.0	21.23		mg/L		106	75 - 122
TOC Result 1	ND		20.0	21.25		mg/L		106	75 - 122
TOC Result 2	ND		20.0	21.22		mg/L		106	75 - 122

Lab Sample ID: 490-20678-A-11 MS
Matrix: Water
Analysis Batch: 62680

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1.03		20.0	21.68		mg/L		103	75 - 122
TOC Result 1	1.04		20.0	21.53		mg/L		102	75 - 122
TOC Result 2	1.02		20.0	21.83		mg/L		104	75 - 122

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 13B0139-BLK1
Matrix: Water
Analysis Batch: 13B0139

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13B0139_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		02/27/13 07:46	02/27/13 12:24	1.00
Sulfate	ND		0.500		mg/l		02/27/13 07:46	02/27/13 12:24	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0 (Continued)

Lab Sample ID: 13B0139-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13B0139 — **Prep Batch: 13B0139_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	5.23		mg/l		105	90 - 110
Sulfate	12.5	13.0		mg/l		104	90 - 110

Lab Sample ID: 13B0139-MS1 — **Client Sample ID: MW-25-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13B0139 — **Prep Batch: 13B0139_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	0.140		5.00	5.48		mg/l		107	80 - 120
Sulfate	29.2		12.5	41.9		mg/l		102	80 - 120

Lab Sample ID: 13B0139-MSD1 — **Client Sample ID: MW-25-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13B0139 — **Prep Batch: 13B0139_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	0.140		5.00	5.52		mg/l		108	80 - 120	0.800	12.1
Sulfate	29.2		12.5	42.0		mg/l		102	80 - 120	0.157	10

Lab Sample ID: 13B0139-DUP1 — **Client Sample ID: MW-25-022513**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13B0139 — **Prep Batch: 13B0139_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	0.140		0.210	R4	mg/l		40.0	13.1
Sulfate	29.2		29.6		mg/l		1.32	15.7

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-22-022513

Lab Sample ID: SWB0138-01

Date Collected: 02/25/13 11:40

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 15:47	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.953	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 16:32	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 10:26	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 08:54	CBW	TAL SPK

Client Sample ID: MW-23-022513

Lab Sample ID: SWB0138-02

Date Collected: 02/25/13 13:06

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 16:34	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.953	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 16:49	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 10:39	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 09:12	CBW	TAL SPK

Client Sample ID: MW-24-022513

Lab Sample ID: SWB0138-03

Date Collected: 02/25/13 15:07

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 16:58	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.954	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 17:06	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 10:42	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 09:31	CBW	TAL SPK
Total	Analysis	EPA 300.0		4.00	13B0139	02/27/13 13:21	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-08-022513

Lab Sample ID: SWB0138-04

Date Collected: 02/25/13 13:44

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 17:21	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.953	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 17:24	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 10:44	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 09:51	CBW	TAL SPK

Client Sample ID: MW-07-022513

Lab Sample ID: SWB0138-05

Date Collected: 02/25/13 15:00

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 17:45	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.951	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 17:41	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 10:57	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 10:10	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	13B0139	02/27/13 13:40	CBW	TAL SPK

Client Sample ID: MW-09-022513

Lab Sample ID: SWB0138-06

Date Collected: 02/25/13 17:48

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 18:09	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.950	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 17:58	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 11:00	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 10:29	CBW	TAL SPK
Total	Analysis	EPA 300.0		2.00	13B0139	02/27/13 13:59	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-15-022513

Lab Sample ID: SWB0138-07

Date Collected: 02/25/13 17:16

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 18:32	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.954	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 18:15	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	03/18/13 14:42	MRS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 11:02	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		5	62680	03/04/13 16:12	CLJ	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 10:48	CBW	TAL SPK

Client Sample ID: MW-05-022513

Lab Sample ID: SWB0138-08

Date Collected: 02/25/13 13:12

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 18:55	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.951	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 19:06	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 11:05	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 13:02	CBW	TAL SPK

Client Sample ID: MW-06-022513

Lab Sample ID: SWB0138-09

Date Collected: 02/25/13 14:12

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 19:19	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.954	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 19:23	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 11:08	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 11:26	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Client Sample ID: MW-25-022513

Lab Sample ID: SWB0138-10

Date Collected: 02/25/13 16:30

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 20:31	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 19:41	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 11:10	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 12:43	CBW	TAL SPK

Client Sample ID: Duplicate-1-022513

Lab Sample ID: SWB0138-11

Date Collected: 02/25/13 12:34

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 20:55	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.950	13B0154_P	02/28/13 11:28	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13B0154	02/28/13 19:58	MS	TAL SPK
Total	Prep	EPA 3005A		1.00	13C0036_P	03/07/13 08:18	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	13C0036	03/11/13 11:13	ICP	TAL SPK
Total/NA	Analysis	SM 5310C		1	62321	03/01/13 13:40	JF	TAL NSH
Total	Prep	Wet Chem		1.00	13B0139_P	02/27/13 07:46	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13B0139	02/27/13 11:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	13B0139	02/27/13 17:30	CBW	TAL SPK

Client Sample ID: Trip Blank

Lab Sample ID: SWB0138-12

Date Collected: 02/22/13 00:00

Matrix: Water

Date Received: 02/26/13 12:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13C0012_P	03/04/13 10:35	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13C0012	03/04/13 21:18	CBW	TAL SPK

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

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	10-31-13
Washington	State Program	10	C569	01-06-14

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
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	03-28-14
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 000504-060-02

TestAmerica Job ID: SWB0138

Method	Method Description	Protocol	Laboratory
EPA 8260C	NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		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 6010C	Total Metals by EPA 6010/7000 Series Methods		TAL SPK
SM 5310C	TOC	SM	TAL NSH
EPA 300.0	Anions by EPA Method 300.0		TAL SPK

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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

SWB0138

CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

GeoEngineers

DATE 02/26/13
PAGE ~~ONE~~ 2 OF 2
LAB TEST AMERICA
LAB NO.

PROJECT NAME/LOCATION ROBY'S STATION / BUENA
PROJECT NUMBER 000504-060-02
PROJECT MANAGER DAVID LAUDER
SAMPLED BY KAH and EH

SAMPLE IDENTIFICATION		SAMPLE COLLECTION			# OF	ANALYSIS REQUIRED												NOTES/COMMENTS
LAB	GEOENGINEERS	DATE	TIME	MATRIX	JARS	GRPH by NWTPH-GX	DIPH + GRPH NWTPH-DX	VOCs by EPA 8260B	NITRATE by EPA 300.0	SULFATE by EPA 300.0	TOTAL ORGANIC CARBON by EPA 415.1	TOTAL LEAD by EPA 6020 (ICP-MS)						(Preserved, filtered, etc.)
	MW-22-022513	02/25/13	1140	WATER	8	X	X	X	X	X	X	X						
	MW-23-022513	02/25/13	1306			X	X	X	X	X	X	X						
	MW-24-022513	02/25/13	1507			X	X	X	X	X	X	X						
	MW-08-022513	02/25/13	1344			X	X	X	X	X	X	X						
	MW-07-022513	02/25/13	1500			X	X	X	X	X	X	X						
	MW-09-022513	02/25/13	1748			X	X	X	X	X	X	X						
	MW-15-022513	02/25/13	1716			X	X	X	X	X	X	X						USE CAUTION: SAMPLE COLLECTED NEAR SEWER!
	MW-05-022513	02/25/13	1312			X	X	X	X	X	X	X						USE SEPARATELY ~~FIA~~ BAGGED VOA ONLY IF NEEDED, WELL SOURCE IS UNCERTAIN.
	MW-06-022513	02/25/13	1412			X	X	X	X	X	X	X						
	MW-#25-022513	02/25/13	1630	↓	↓	X	X	X	X	X	X	X						
	~~DUPLICATE~~																	

RELINQUISHED BY	FIRM	RELINQUISHED BY	FIRM	RELINQUISHED BY	FIRM
SIGNATURE Elysa Hogan		SIGNATURE		SIGNATURE	
PRINTED NAME ELYSA HOGAN		PRINTED NAME		PRINTED NAME	
DATE 02/26/13 TIME 1251		DATE TIME		DATE TIME	
RECEIVED BY	**FIRM** TA	**RECEIVED BY**	**FIRM**	**RECEIVED BY**	**FIRM**
SIGNATURE Cat Stapleton		SIGNATURE		SIGNATURE	
PRINTED NAME		PRINTED NAME		PRINTED NAME	
DATE 02-26-13 TIME 12:51		DATE TIME		DATE TIME	

ADDITIONAL COMMENTS:

SWB0138

CHAIN OF CUSTODY RECORD

GEOENGINEERS - GIFFORD
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

GeoEngineers

DATE 02/26/13
PAGE TWO OF 2
LAB TEST AMERICA
LAB NO.

PROJECT NAME/LOCATION ROBY'S / BUENA
PROJECT NUMBER
PROJECT MANAGER DAVID LAUDER
SAMPLED BY KAH and EH

SAMPLE IDENTIFICATION		SAMPLE COLLECTION			# OF	ANALYSIS REQUIRED							NOTES/COMMENTS
LAB	GEOENGINEERS	DATE	TIME	MATRIX	JARS	GRO/DRO by NWTPH-Gx	DRO/ORO by NWTPH-Dx	VOCs by 8260B EPA	NITRATE by EPA 300.0	SULFATE by EPA 300.0	TOTAL ORGANIC CARBON by EPA 415.1	TOTAL LEAD by EPA 6020	
	DUPLICATE-1-022513	02/25/13	1234	WATER	8	X	X	X	X	X	X	X	
	TRIP BLANK	02/25/13						X					

RELINQUISHED BY	FIRM	RELINQUISHED BY	FIRM	RELINQUISHED BY	FIRM
SIGNATURE Eliya Hogan	GEI	SIGNATURE		SIGNATURE	
PRINTED NAME Eliya Hogan		PRINTED NAME		PRINTED NAME	
DATE 2/25/13	TIME 12:51	DATE	TIME	DATE	TIME
RECEIVED BY	**FIRM**	**RECEIVED BY**	**FIRM**	**RECEIVED BY**	**FIRM**
SIGNATURE Cat Stapleton	TA	SIGNATURE		SIGNATURE	
PRINTED NAME		PRINTED NAME		PRINTED NAME	
DATE 2-26-13	TIME 1251	DATE	TIME	DATE	TIME

ADDITIONAL COMMENTS:

TestAmerica Spokane
Sample Receipt Form

Work Order #: SWB0138	Client: GeoEngineers	Project: Roby's
Date/Time Received: 2/26/13 1251	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:			N	
Are CoC documents present:	Y			
Necessary signatures:	Y			

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

Temperature: 0.5 °C Thermometer (Circle one Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6 °C)

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

Log-in Phase Date/Time: 2/26/13 1457 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)	X			
Are dissolved parameters field filtered		X		
Do any samples need to be filtered or preserved by the lab	X			Filtered + Preserved
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			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated #_____			X	

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

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

APPENDIX C
Survey Data

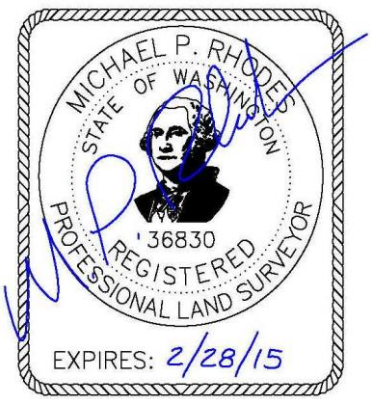
CLIENT: WASHINGTON STATE DEPARTMENT OF ECOLOGY

GEO-ENGINEERS PROJECT NO. 0504-060-02 TD&H PROJECT NO. S13-014

SITE: ROBY'S STATION BUENA, WA

ITEM	NORTHING	EASTING	ELEVATION 1	ELEVATION 2
AS-1	398939.127	1687708.930	790.87	790.63
AS-2	398905.683	1687713.251	791.09	790.67
AS-3	398891.561	1687689.180	790.19	789.67
AS-4	398899.794	1687740.562	791.11	790.76
MW-5	400040.146	1687388.347	794.45	794.09
MW-6	399969.661	1687443.320	794.67	794.38
MW-7	399833.810	1687416.459	794.02	793.70
MW-8	399894.798	1687532.327	794.57	794.26
MW-9	399111.126	1687469.776	790.20	789.89
MW-10	399059.970	1687963.308	789.10	-
MW-11	399059.746	1687765.345	790.49	-
MW-15	399724.149	1687455.753	793.09	792.86
MW-16	398944.453	1687659.044	789.46	789.25
MW-17	398912.509	1687721.353	791.18	790.89
MW-18	398723.288	1687702.894	789.73	789.50
MW-19	398870.845	1687770.483	791.11	790.70
MW-20	398835.611	1687732.829	787.72	787.44
MW-21	398875.094	1687692.851	789.64	789.28
MW-22	399968.951	1687380.312	794.74	794.19
MW-23	399975.126	1687339.026	794.94	794.69
MW-24	399900.086	1687366.467	794.09	793.79
MW-25	399738.613	1687566.589	792.70	792.39

NOTES:
ELEVATION 1 = CASING RIM LEVEL ELEVATION 2 = TOP OF PVC AT NORTH EDGE
VERTICAL DATUM IS NAVD88 (GEOID12A) HORIZONTAL DATUM IS SPC WA SOUTH
HORIZONTAL COORDINATES SHOWN ARE PROJECT COORDINATES AT GROUND LEVEL.
TO OBTAIN GRID VALUES APPLY A MEAN COMBINED FACTOR OF 0.999884031.



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

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

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

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

This report has been prepared for Roby's Station site located at the intersection of Buena Road and Burr Street in Buena, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

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

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

Reliance Conditions for Third Parties

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

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

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

Environmental Regulations are Always Evolving

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

Subsurface Conditions Can Change

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

Soil and Groundwater End Use

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

Most Environmental Findings are Professional Opinions

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

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only

photographic or electronic reproductions are acceptable, but recognize that separating logs from the report can elevate risk.

Read These Provisions Closely

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

Geotechnical, Geologic and Geoenvironmental Reports Should Not be Interchanged

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

Biological Pollutants

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

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

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

GeoEngineers