

Soil and Groundwater Assessment Report

Trolley Barn
Yakima, Washington

for
Washington State Department of Ecology

February 16, 2015



GEOENGINEERS 
Earth Science + Technology

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523 East Second Avenue
Spokane, Washington 99202
509.363.3125

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Prepared for:

Washington State Department of Ecology
Toxics Cleanup Program – Central Region Office
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902-3452

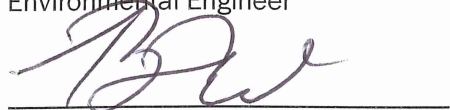
Attention: Matthew Durkee, LHG

Prepared by:

GeoEngineers, Inc.
523 East Second Avenue
Spokane, Washington 99202
509.363.3125



Scott H. Lathen, PE
Environmental Engineer



Bruce D. Williams
Managing Principal

SHL:BDW:tjh:mce

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ACRONYMS AND ABBREVIATIONS

Able – Able Cleanup Technologies

AST – aboveground storage tank

ASTM– American Society for Testing and Materials

bgs – below ground surface

BTEX – benzene, toluene, ethylbenzene and total xylenes

Cascade – Cascade Drilling

COC – chain-of-custody

CUL – cleanup level

CWCMH – Central Washington Comprehensive Mental Health

DO – dissolved oxygen

DRPH – diesel-range petroleum hydrocarbons

Ecology – Washington State Department of Ecology

EDB – 1,2-dibromoethane

EDC – 1,2-dichloroethane

EPA – United States Environmental Protection Agency

ESA – environmental site assessment

ev – electron volt

GeoEngineers – GeoEngineers, Inc.

GIS - geographical information system

GRPH – gasoline-range petroleum hydrocarbons

GPS – global positioning system

HCID – hydrocarbon identification

HWA – HWA Geosciences, Inc.

IDW – investigation-derived waste

ACRONYMS AND ABBREVIATIONS (CONTINUED)

LCS – laboratory control sample

LCSD – laboratory control sample duplicate

µg/L – micrograms per liter

MCL – maximum contaminant level

mg/kg – milligrams per kilogram

mg/L – milligrams per liter

MS – matrix spike

mS/cm – milliSiemens per centimeter

MSD – matrix spike duplicate

MTBE – methyl tert butyl ether

MTCA – Model Toxics Control Act

mV – millivolt

NAD83 – North American Datum of 1983

NAVD88 – North American Vertical Datum of 1988

NRC – NRC Environmental Services

ORP – oxidation-reduction potential

ORPH – oil-range petroleum hydrocarbons

PAH – polycyclic aromatic hydrocarbons

PCB – polychlorinated biphenyls

PID – photoionization detector

PLS – PLS, Inc.

PLSA – PLSA Engineering

ppm – parts per million

PVC – polyvinyl chloride

ACRONYMS AND ABBREVIATIONS (CONTINUED)

QA – quality assurance

QC – quality control

RCRA – Resource Conservation and Recovery Act

RPD – relative percent difference

S&W – Shannon and Wilson, Inc.

SDG – sample delivery group

TestAmerica – TestAmerica Laboratories, Inc.

Trolley Barn – Trolley Repair Barn

UST – underground storage tank

Utilities Plus – Utilities Plus, LLC

VOC – volatile organic compound

XRF – x-ray fluorescence

1.0 INTRODUCTION

This report summarizes soil and groundwater assessment activities conducted in 2014 at the Trolley Barn site (herein designated the site) located in Yakima, Washington, as shown in Vicinity Map, Figure 1. The site includes both the current Trolley Barn property, located at 404 South 3rd Avenue, and the adjacent parking lot to the west, currently operated by Central Washington Comprehensive Mental Health (CWCMH). The parking lot was formerly part of the Trolley Barn property until it was sold in the 1990s. This report has been prepared by GeoEngineers, Inc. (GeoEngineers) for the Washington State Department of Ecology (Ecology) under Contract Number C1100145.

Assessment actions included collecting soil samples from test pits, exploratory borings and groundwater monitoring wells, and groundwater samples from the three new wells and the well installed in 2007. A quarterly groundwater monitoring program was initiated following installation of the monitoring wells. This report summarizes results of soil assessment activities and the initial (first quarter) of groundwater monitoring. Site features and exploration locations are depicted in Exploration Locations, Figure 2.

2.0 SITE DESCRIPTION AND BACKGROUND

2.1. Trolley Barn Property

The Yakima Valley Transportation Company Trolley Repair Barn (Trolley Barn) and Substation is located at the intersection of South 3rd Avenue and West Pine Street in Yakima, Washington. The property is owned by the City of Yakima and is used to house and maintain trolleys. Two buildings (the Trolley Barn and the Substation) are located on the site and a fenced yard contains vehicles and equipment. Trolley tracks and wires are located south and east of the Trolley Barn building.

The Trolley Barn contains two maintenance pits with concrete floors and sumps or drains; petroleum staining was observed on the walls and floors of the pits as a result of maintenance of the trolleys and drips from equipment. The presence of pre-1974 oil-filled electrical equipment, especially in the substation, suggests the possibility of polychlorinated biphenyls (PCBs).

Three underground storage tanks (USTs) were located at the north end of the site; two USTs (identified as UST#6 and UST#7) were located near the northeast corner of the site and one UST (identified as UST#8) was located west of the Trolley Barn, currently in CWCMH's parking lot. USTs #6, #7 and #8 were removed and adjacent soil was assessed in 1990. Total petroleum hydrocarbons were detected at relatively low concentrations (less than 100 parts per millions [ppm]) from the 10 UST soil assessment samples collected from the three UST excavations. Benzene was detected at concentrations greater than current Washington State Model Toxics Control Act (MTCA) Method A cleanup levels (Method A cleanup levels [CULs]) from eight of the 10 assessment samples. Toluene also exceeded the Method A CUL from one sample. A fourth apparent UST fill port was observed in the floor of the Substation. The content and capacity of the tank is unknown. A bulk fuel facility has been present approximately 350 feet south of the property for up to 50 years. Historic site features are depicted on Figure 2.

A Phase II Environmental Site Assessment (ESA) was conducted in 2007 by HWA Geosciences, Inc. (HWA). HWA advanced three hand-auger borings (Pit-1-N, Pit-1-S and Pit-2) in the maintenance pits, one soil boring (HWA-B1) located west of the Substation and installed a groundwater monitoring well (HWA-MW-1) south

of the Substation. Two oil samples (Switch-1 and Switch-2) also were collected from equipment in the Substation. Previous exploration locations are depicted on Figure 2. Chemical analytical results from the sampling indicated the following:

- Oil-range petroleum hydrocarbons (ORPH) were detected at concentrations exceeding the Method A CUL in soil samples collected from the maintenance pits. ORPH was not detected in the soil samples collected from HWA-B1 and HWA-MW-1 and the groundwater sample collected from HWA-MW-1.
- Lead, cadmium and chromium were detected in the maintenance pit soil samples at concentrations exceeding Method A CULs for unrestricted land use. Total and dissolved chromium were detected in the groundwater sample collected from HWA-MW-1 at concentrations greater than the Method A CUL.
Note: HWA reported cadmium instead of chromium exceeding Method A CULs. A review of the laboratory report confirmed cadmium was not detected at concentrations greater than the laboratory reporting limit.
- PCBs were detected in the maintenance pit samples at concentrations less than Method A CULs. PCBs were not detected in the two oil samples collected from the substation equipment.

2.2. Central Washington Comprehensive Mental Health Property

A Phase II ESA was conducted at the CWCMH facility in 1996 by Shannon and Wilson, Inc. (S&W). The assessment included excavating five test pits (TP-1 through TP-5) and collecting a surface soil sample from near a waste oil above-ground storage tank (AST) at a location currently included in the CWCMH parking area. The historic test pits and waste oil tank locations are depicted on Figure 2. Chemical analytical results obtained from this Phase II ESA indicated lead, cadmium and ORPH were present at concentrations greater than Method A CULs in the surface soil sample collected near the waste oil AST. The potential contaminants (metals, polycyclic aromatic hydrocarbons [PAHs], diesel-range petroleum hydrocarbons [DRPH], ORPH and PCBs) analyzed from the test pit soil samples were either not detected or detected at concentrations less than Method A CULs.

Additionally, a limited Phase II ESA was conducted on portions of the site in 1991 by PLSA Engineering and Surveying (PLSA). As reported by S&W in a 1996 Phase I ESA, the PLSA Phase II ESA included excavating two test pits (TP-1 and TP-3) in the CWCMH parking area. Lead was detected in a soil sample obtained from test pit TP-1 (located at the same approximate location as the S&W TP-1) at a concentration greater than Method A CULs. Additionally, heavy oil was detected at 1,600 milligrams per kilogram (mg/kg), which exceeded the cleanup level at the time of sampling but is less than the current Method A CUL. No chemical analytical data was reported in the S&W Phase I ESA associated with PLSA test pit TP-3.

3.0 SCOPE AND TASKS

Based on our review of the previous assessment activities, in our opinion, additional investigation was required to evaluate data gaps and better define the extent of contamination. Our general approach consisted of focused site assessment activities, which included excavating test pits, drilling soil borings and collecting soil samples, installing additional groundwater monitoring wells and conducting quarterly groundwater monitoring from new and existing wells. These activities were conducted to define the nature and extent of possible contamination in soil and groundwater.

The following tasks were identified in the provided scope of services.

- Task 1 – Soil Sampling and Laboratory Analysis
- Task 2 – Groundwater Monitoring Well Installation
- Task 3 – Groundwater Sampling and Laboratory Analysis
- Task 4 – Data Evaluation and Reporting

A detailed description of the activities performed for each task is provided below.

3.1. Task 1: Soil Sampling and Laboratory Analysis

This task included initial field activities and collecting soil samples from test pits and soil borings, during separate mobilizations. Specific scope items included:

1. Coordinating underground utility locating using the one-call system and a subcontracted private utility locator, Utilities Plus, LLC (Utilities Plus).
2. Subcontracting NRC Environmental Services (NRC) to excavate five test pits (GEI-TP-1, GEI-TP-1a, and GEI-TP-2 through GEI-TP-4) in areas near former USTs and at exterior locations near the Substation and the Trolley Barn. Test pits were excavated to between about 9½ to 14 feet below ground surface (bgs). Excavated soil was field screened using the techniques described below.
3. Subcontracting Cascade Drilling (Cascade) to drill nine soil borings (GEI-B1 through GEI-B9) and three monitoring wells (GEI-MW-1 through GEI-MW-3) using sonic drilling techniques. Borings were advanced to between 10 to 20 feet bgs. Continuous soil samples were collected and select sub-samples were field screened using water sheen techniques, a photoionization detector and visual observations.
4. Submitting at least one soil sample from each test pit and boring to TestAmerica Laboratories, Inc. (TestAmerica) located in Spokane Valley, Washington for chemical analysis. Soil samples were analyzed using a combination of the following methods:
 - a. Hydrocarbon identification using Northwest Method NWTPH-HCID (HCID).
 - b. Gasoline-range petroleum hydrocarbons (GRPH) using Northwest Method NWTPH-Gx.
 - c. DRPH and ORPH using Northwest Method NWTPH-Dx.
 - d. Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) using Environmental Protection Agency (EPA) 200 Series Methods.
 - e. PCBs using EPA Method 8082.
 - f. Volatile organic compounds (VOCs) using EPA Method 8260. Specific VOCs analyzed using this method included: benzene, toluene, ethylbenzene and total xylenes (BTEX), 1,2-dichloroethane (EDC), and methyl-tert-butyl-ether (MTBE).
 - g. PAHs using EPA Method 8270.
5. Collecting one grab groundwater sample from soil boring GEI-B8. Groundwater was purged before sampling. The groundwater sample was submitted to TestAmerica for HCID, GRPH, DRPH, ORPH, VOCs, PAHs, PCBs and metals using the methods listed above.
6. Managing investigation-derived waste (IDW) generated during the investigation.

3.2. Task 2: Groundwater Monitoring Well Installation

This task included installing monitoring wells to assess groundwater for chemicals of potential concern and evaluating groundwater flow direction. Groundwater monitoring wells were installed during the same mobilization as drilling the soil borings. This task included:

1. Constructing monitoring wells using 2-inch-diameter, Schedule 40 polyvinyl chloride (PVC) casing and well screen material, with the top of the well screen located approximately 2 to 3 feet above the estimated groundwater level, and total well screen lengths of between 10 to 15 feet. The wells were completed with flush-mount surface monuments.
2. Subcontracting PLS, Inc. (PLS), a licensed surveyor, to survey the horizontal location and top of well casing elevation. Elevation was measured to the nearest 0.01 foot relative to the North American Vertical Datum of 1988 (NAVD88). The horizontal location was measured to within 0.1 foot to the North American Vertical Datum of 1983, updated 1991 (NAD83 [91]). Survey locations on the PVC well casing were marked by the surveyor on the north side of the casing.

3.3. Task 3: Groundwater Sampling and Laboratory Analysis

This task included conducting the first quarterly groundwater monitoring event for the existing well (HWA-MW-1) and the new wells (GEI-MW-1 through GEI-MW-3). Specific groundwater monitoring tasks included:

1. Inspecting the well cap and monument integrity and measuring depth to water in each well to calculate the groundwater elevation.
2. Collecting groundwater samples using low-flow, low-stress sampling techniques. Groundwater quality field parameters were measured during purging activities, including pH, temperature, conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP) and turbidity. One duplicate sample was collected from GEI-MW-2.
3. Submitting groundwater samples to TestAmerica for the following chemical analyses using the methods listed above:
 - a. GRPH, DRPH and ORPH;
 - b. VOCs;
 - c. MTCA Metals (arsenic, cadmium, chromium, lead, and mercury);
 - d. PCBs;
 - e. PAHs;
 - f. In addition to DRPH analysis using NWTPH-Dx, groundwater samples collected during this event were analyzed using NWTPH-Dx with silica gel cleanup for comparison purposes; and
 - g. Samples collected during this event were analyzed for natural attenuation parameters including nitrate, soluble manganese (Mn^{+2}), sulfate (SO_4), methane (CH_4) and alkalinity. Soluble ferrous iron (Fe^{2+}), which has a 15-minute hold time, was analyzed in the field using a Hach IR-18C color disc test kit and the 1,10 phenanthroline testing method.
4. Managing IDW and coordinating disposal after obtaining chemical analytical results.

3.4. Task 4: Data Evaluation and Reporting

Upon completion of field exploration activities and the first quarterly groundwater sampling event, this assessment report was provided summarizing the field activities, soil analytical results, the first quarter of groundwater analytical results, a comparison of analytical results to MTCA Method A cleanup levels and an estimation of groundwater flow direction and gradient.

4.0 FIELD ASSESSMENT

This section describes the field assessment procedures and observations. Assessment actions included excavating test pits, advancing exploratory soil borings, installing monitoring wells and collecting soil and groundwater samples. The one-call utility notification was contacted to identify and mark underground utilities before conducting the subsurface explorations. Additionally, Utilities Plus identified and marked underground utilities near the proposed test pit, soil boring, and monitoring well locations.

4.1. Test Pit Excavations

Test pit explorations were conducted June 11, 2014. NRC excavated five test pits (GEI-TP-1, GEI-TP-1a, and GEI-TP-2 through GEI-TP-4) using a Takeuchi TB285 excavator to depths ranging between 9½ to 14 feet bgs. Three test pits (GEI-TP-1, GEI-TP-1a, and GEI-TP-2) were excavated near historical USTs #6 and #7, one test pit (GEI-TP-3) was excavated south of the Trolley Barn and the final test pit (GEI-TP-4) was excavated south of the Substation. Based on the field screening results (discussed in “Section 4.4”) observed from test pit GEI-TP-1, test pit GEI-TP-1a was excavated to assess the lateral extent of potential contamination to the east. Test pit locations are depicted on Figure 2. The test pits were backfilled with the excavated material and compacted with the excavator bucket.

4.2. Soil Borings and Monitoring Well Installation

Cascade drilled soil borings (GEI-B1 through GEI-B9) and monitoring wells (GEI-MW-1 through GEI-MW-3) on August 11 through 13, 2014 using sonic drilling methods. Soil borings were drilled to depths ranging between 10 to 20 feet bgs and monitoring wells were advanced to depths ranging from 20 to 25 feet bgs. Six soil borings (GEI-B1 through GEI-B6) were advanced in the CWCMH parking lot and three borings (GEI-B7 through GEI-B9) were advanced near historical USTs #6 and #7. Soil borings were backfilled with bentonite chips and patched with asphalt or gravel depending on location.

Cascade constructed the monitoring wells using 2-inch-diameter, Schedule 40 PVC casing and 0.010-slotted well screen material, with the top of the well screen located approximately 2 to 3 feet above the estimated groundwater level, and total well screen lengths of between 10 to 15 feet. The monitoring wells were completed with flush-mount surface monuments. Monitoring well GEI-MW-1 was installed at a downgradient/crossgradient location relative to historical USTs #6 and #7. Monitoring wells GEI-MW-2 and GEI-MW-3 were installed at crossgradient locations relative to the Trolley Barn building. **Note:** GEI-MW-3 was intended as an upgradient monitoring well based on an assumed groundwater flow direction to the southeast.

PLS surveyed the horizontal and vertical locations of the monitoring wells on August 26, 2014. The PVC casing was surveyed relative to the north side of the casing. The top of casing elevation ranged between 1,059.44 feet (HWA-MW-1) to 1,061.25 feet (GEI-MW-2). The casing elevations were surveyed relative to the NAVD88 vertical datum and the horizontal locations were surveyed relative to the NAD83/91

Washington South Zone. The exploratory soil boring and test pit locations were logged using a GPS capable device.

IDW, consisting of excess soil cuttings, decontamination and development water, generated from the soil borings and monitoring wells was drummed and stored near the shed in the northeast corner of the site. After receiving the soil and groundwater chemical analytical results, Able Cleanup Technologies (Able) was contracted to profile and dispose the accumulated IDW. IDW disposal will occur in November 2014.

4.3. Subsurface Conditions

GeoEngineers field representative observed each test pit and boring, classified the soil encountered, and prepared a detailed log of each exploration. 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. Soil conditions observed from the explorations generally consisted of gravel with varying quantities of silt, sand and cobbles. Groundwater was not observed in the test pit explorations but was encountered in several soil borings at depths about 12 to 15 feet bgs. Test pit and soil boring logs are included in Appendix A.

4.4. Field Screening Observations

Soil sub-samples from each test pit and soil boring were field-screened for the presence of petroleum-related compounds using the procedures described in Appendix A. No sheens were observed on soil removed from the test pits. Headspace vapors were detected in test pit GEI-TP-1 at about 9½ feet bgs at 7.5 ppm. Headspace vapors were not detected greater than 1 ppm from the other test pits. Water sheens were not observed from the soil and monitoring well borings except a slight sheen in boring GEI-B8 from about 18 to 20 feet bgs. Headspace vapors were detected from the borings at concentrations ranging up to 770 ppm (from boring GEI-B8). Headspace vapors detected from the soil borings likely were caused by high daily temperatures (greater than 90 degrees Fahrenheit) causing interference with the photoionization detector (PID) readings. Field screening results are recorded on the boring logs included in Appendix A.

Ecology's on-site representative also used an X-ray fluorescence (XRF) instrument to screen soil samples obtained from the soil borings and monitoring wells for metals. XRF screening was conducted on samples obtained from borings GEI-B1 through GEI-B4, GEI-B6, GEI-B8 and monitoring well GEI-MW-3. XRF data is summarized in Summary of Soil Field Screening Results – Metals, Table 1. Arsenic was detected at concentrations potentially exceeding Method A CULs in three borings (GEI-B4, GEI-B6, and GEI-MW-3) at depths shallower than 6½ feet bgs. Lead was detected at concentrations potentially exceeding Method A CULs in each of the borings screened, except boring GEI-B2, at depths down to 6½ feet bgs. Mercury was detected in two borings (GEI-B1 and GEI-B4) at concentrations greater than Method A CULs, also at depths down to 6½ feet bgs. Cadmium and chromium were not detected at concentrations greater than the instruments limit of detection. XRF field screening data was used to select additional soil samples (from borings GEI-B4, GEI-B5 and GEI-B6) for metals laboratory analysis.

4.5. Soil Sampling

Soil samples were collected at regular intervals from the test pit, boring, and monitoring well explorations for potential chemical analysis. Soil samples were collected from the excavator bucket at about 3-foot intervals from test pits GEI-TP-1 through GEI-TP-4. Soil samples were collected from test pit GEI-TP-1a at about 9 and 12 feet bgs to assess the soil at similar depths where field screening was observed in GEI-TP-1.

One soil sample was submitted from test pits GEI-TP-1 through GEI-TP-4 for chemical analysis. Two soil samples were submitted for chemical analysis from test pit GEI-TP-1a at depths of 9 and 12 feet bgs.

Two or three soil samples were collected from each exploratory and monitoring well boring for potential chemical analysis. One soil sample was submitted for chemical analysis from the monitoring well borings (GEI-MW-1 through GEI-MW-3) and exploratory borings (GEI-B2, GEI-B3, and GEI-B7 through GEI-B9) at depths ranging between 7 to 15 feet bgs. Two soil samples were submitted for chemical analysis from borings GEI-B1 and GEI-B4 through GEI-B7 at depths ranging between 2 to 13 feet bgs.

4.6. Grab Groundwater Sample

Soil and groundwater with field screening indications of potential petroleum contamination were encountered at about 15 feet bgs in boring GEI-B8. Based on the field screening indications of contamination, a one-time reconnaissance groundwater sample (B8-081214) was collected from the boring using a temporary well screen. Approximately 3 gallons of water were purged from the boring before sampling. Sampling procedures are described in Appendix A.

5.0 QUARTERLY GROUNDWATER MONITORING

A groundwater monitoring program was initiated following construction of the monitoring wells. The first groundwater sampling event was conducted on September 16, 2014. Subsequent groundwater sampling events will be conducted quarterly for three additional quarters. The groundwater monitoring program includes both the existing monitoring well (HWA-MW-1) and the three recently installed monitoring wells (GEI-MW-1 through GEI-MW-3). Groundwater sampling procedures are described in Appendix A.

5.1. Monitoring Well Headspace Vapor Monitoring

GeoEngineers measured monitoring well headspace vapors using a PID. Headspace measurements were collected by inserting the PID probe into the well casing immediately after removing the well cap and recording the maximum observed concentration. Headspace vapor measurements were less than 1 ppm in each well casing. Results are presented in Summary of Groundwater Level Measurements, Table 2.

5.2. Groundwater Elevation Monitoring

GeoEngineers measured static depth to groundwater on September 16, 2014 using an electronic water level indicator. Depths ranged from 12.00 feet (HWA-MW-1) to 13.40 feet (GEI-MW-2) below the top of well casing. Groundwater elevations ranged from about 1,047.22 feet in GEI-MW-1 to 1,047.85 feet in GEI-MW-2.

Based on groundwater elevations measured on September 16, 2014, groundwater flow in shallow groundwater beneath the site generally was toward the east. Groundwater elevation contours generated using Golden Software's Surfer (version 12) by applying the ordinary kriging interpolation method (linear variogram model). The average hydraulic gradient was about 0.005 feet per foot (about 29 feet per mile). Groundwater elevations in the shallow unconfined aquifer underlying the site are influenced by the rate of groundwater recharge (infiltration of precipitation and snowmelt) within associated upland areas to the north, west and south of the site and, potentially, the stage of adjacent surface water within the irrigation canals and the Yakima River.

Groundwater depths and associated groundwater elevations are included in Table 2. Groundwater Contours and Elevations, September 16, 2014, Figure 3 presents groundwater elevations, approximate groundwater elevation contours and interpreted groundwater flow direction on September 16, 2014.

5.3. Groundwater Sampling

GeoEngineers purged and sampled project monitoring wells in general compliance with standard low-flow sampling methodology. A portable peristaltic pump equipped with disposable tubing was used to purge and sample each well. Groundwater water quality parameters 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, or the maximum purge time had been achieved. Groundwater water quality parameters are summarized in Summary of Field-Measured Natural Attenuation Parameters, Table 3.

6.0 CHEMICAL ANALYTICAL RESULTS

Soil and groundwater samples were submitted to TestAmerica. Chemical analytical results are summarized in Summary of Chemical Analytical Results – Groundwater, Table 4 and Summary of Chemical Analytical Results – Soil, Table 5. Laboratory reports are included in Appendix B.

6.1. Soil Chemical Analytical Results

6.1.1. Test Pit Soil Samples

Six soil samples were submitted to TestAmerica for chemical analysis. Soil samples obtained from the test pits were analyzed for one or more of the following analytes: GRPH, ORPH, DRPH, VOCs, 1,2-dibromoethane (EDB), PAHs, PCBs and metals using the analytical methods described above. Test pit soil sample results are summarized by the following:

- GRPH, DRPH, ORPH, EDB, PAHS, PCBs, and metals were either not detected or detected at concentrations less than Method A CULs in site soil samples.
- VOCs were either not detected or detected at concentrations less than Method A CULs except from the sample collected from GEI-TP-2 at 12 feet bgs. Benzene was detected at a concentration (0.0458 mg/kg) that exceeded the Method A CULs (0.03 mg/kg). The other VOCs from this sample were either not detected or detected at a concentration less than Method A CULs.
- Cadmium was detected at a concentration of 2.02 mg/kg, which is greater than the Method A CUL of 2.0 mg/kg, in the sample collected from GEI-TP-2 at 12 feet bgs.
- Lead was detected at a concentration of 302 mg/kg, which is greater than the Method A CUL of 250 mg/kg, in the sample collected from GEI-TP-2 at 12 feet bgs.
- Metals were either not detected or were detected at concentrations less than Method A CULs in other site soil samples submitted.

6.1.2. Exploratory Boring and Monitoring Well Soil Samples

Sixteen soil samples (plus two duplicate samples) were submitted to TestAmerica from the soil borings and monitoring wells. Soil samples were analyzed for one or more of the following analytes: GRPH, ORPH, DRPH,

VOCs, EDB, PAHs, PCBs and metals using the analytical methods described above. Exploratory boring and monitoring well soil sample analytical results are summarized by the following:

- GRPH, VOCs, EDB, PAHs and PCBs were either not detected or were detected at concentrations less than Method A CULs.
- DRPH and ORPH were detected in boring GEI-B1 at about 2 to 3 feet bgs at concentrations (3,950 mg/kg and 15,000 mg/kg, respectively) exceeding Method A CULs (2,000 mg/kg). DRPH and ORPH were not detected in soil samples obtained from the other explorations.
- Cadmium was detected in borings GEI-B1 and GEI-B4 at about 2 to 3 feet bgs at concentrations (2.60 and 6.48 mg/kg, respectively) exceeding the Method A CUL (2 mg/kg).
- Lead was detected in borings GEI-B1, GEI-B4 and GEI-B6 at about 2 to 3 feet bgs at concentrations ranging from 343 to 865 mg/kg, exceeding the Method A CUL (250 mg/kg).
- Metals were either not detected or were detected at concentrations less than Method A CULs in the remaining site soil samples submitted.

6.2. Groundwater Chemical Analytical Results

Monitoring wells HWA-MW-1 and GEI-MW-1 through GEI-MW-3 were purged and sampled using low-flow/low-stress sampling methodology (EPA, 2010). 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 generally collected when each water quality parameter had stabilized, with the exception of DO in GEI-MW-3 (see Appendix A for additional information and stabilization criteria).

Purge water generated during groundwater sampling was drummed, labeled and stored near the northeast corner of the site pending analytical results for profiling and disposal.

6.2.1. Groundwater Sample from Boring GEI-B8, August 12, 2014

The groundwater sample obtained from boring GEI-B8 was submitted for analysis of the following analytes: GRPH, ORPH, DRPH, VOCs, PAHs, PCBs and metals, using the analytical methods listed in “Section 3.0.” Though the groundwater sample was purged prior to sampling, elevated contaminant concentrations might be the result of turbidity in the water. Groundwater sample chemical analytical results are summarized by the following:

- GRPH was detected at a concentration of 1,200 micrograms per liter (µg/L), which is greater than the MTCA Method A cleanup level of 800 µg/L.
- DRPH and ORPH were detected at concentrations of 20,900 µg/L and 766 µg/L, respectively, which are greater than their MTCA Method A cleanup levels of 500 µg/L.
- DRPH and ORPH were detected at concentrations of 18,000 µg/L and 1,000 µg/L, respectively, using Method NWTPH-HCID, which are greater than their MTCA Method A cleanup levels of 500 µg/L.
- Lead was detected at a concentration of 27.7 µg/L which is greater than the MTCA Method A cleanup level of 15 µg/L.

- Other analytes were either not detected or were detected at concentrations less than their applicable cleanup levels.

6.2.2. Groundwater Samples from Site Monitoring Wells, September 16, 2014

The groundwater samples obtained from wells HWA-MW-1 and GEI-MW-1 through GEI-MW-3 were submitted for analysis of the following analytes: GRPH, ORPH, DRPH, VOCs, PAHs, PCBs and metals, using the analytical methods listed in “Section 3.0.” The contaminants analyzed for were either not detected or were detected at concentrations less than their respective cleanup levels. However, we did observe the following results:

- EDB was analyzed using EPA Method 8260, which cannot achieve a reporting limit less than the applicable MTCA Method A CUL according to the analytical laboratory. As a result, EDB is reported as not detected, however at a reporting limit greater than the MTCA Method A CUL.
- Low GRPH and DRPH concentrations (less than the MTCA Method A CUL) were detected in monitoring well GEI-MW-3.
- Detectable concentrations of chloroform were observed in monitoring wells HWA-MW-1 and GEI-MW-2. Chloroform detections could result from a leaking sewer pipe. According to the City of Yakima online geographical information system (GIS) database, an 8-inch diameter sewer pipe is located approximately between the Trolley Barn and CWCMMH properties (depicted on Figure 2).

6.3. Groundwater Natural Attenuation Parameters

In addition to the contaminants of concern, groundwater samples from the September 2014 event were analyzed for natural attenuation parameters. Natural attenuation parameters analyzed by TestAmerica included: nitrate, sulfate, dissolved iron, dissolved manganese, methane and total alkalinity. Chemical analytical results are tabulated and compared to MTCA Method A cleanup levels in Table 4. Laboratory reports are provided in Appendix B.

DO, temperature, specific conductivity, pH and ORP were measured in the field using a Troll 9500 multi-parameter meter equipped with a flow-through cell. Reported field parameters, summarized in Table 3, reflect conditions at the conclusion of well purging during low-flow sampling. Ferrous iron (Fe^{2+}) concentrations also were measured in the field using a Hach IRC-18C color disc test kit and the 1,10 phenanthroline testing method. Field measurement results are summarized in Table 3. Field and laboratory analytical results for natural attenuation parameters are summarized by the following:

- Soluble manganese was detected at a concentration of 0.986 milligrams per liter (mg/L) in the sample from GEI-MW-3, which is greater than its Secondary Maximum Contaminant Level (MCL) of 0.05 mg/L. Soluble manganese was not detected or was detected at concentrations less than its MCL in samples from other site wells.
- DO ranged from 0.70 mg/L in GEI-MW-3 to 7.60 mg/L in GEI-MW-2.
- Temperature ranged from 18.05 degrees Celsius in GEI-MW-1 to 18.22 degrees Celsius in HWA-MW-1.
- Specific conductivity ranged from 0.2421 milliSiemens per centimeter (mS/cm) in HWA-MW-1 to 0.3054 mS/cm in GEI-MW-3.
- pH ranged from 6.65 in GEI-MW-1 to 6.80 in HWA-MW-1.

- Normalized ORP (relative to the standard hydrogen electrode) ranged from 68 millivolts (mV) in GEI-MW-3 to 458 mV in GEI-MW-2.
- Methane concentrations ranged from less than 0.00500 mg/L in HWA-MW-1, GEI-MW-1, and GEI-MW-2 to 0.00508 in GEI-MW-3.
- Total alkalinity ranged from 80.0 mg/L in GEI-MW-1 to 125 mg/L in GEI-MW-3.
- Soluble ferrous iron concentrations ranged from less than 0.2 mg/L in HWA-MW-1, GEI-MW-1, and GEI-MW-2 to approximately 0.75 mg/L in GEI-MW-3.

A qualitative assessment of the contamination biodegradation potential for biodegradation of contaminants at a site can be conducted by evaluating selected geochemical parameters of groundwater samples collected from monitoring wells. Though one sampling event does not provide enough data to establish natural attenuation trends, preliminary conclusions suggest natural attenuation might be occurring near GEI-MW-3. DO, ORP and nitrate-nitrogen were measured an order of magnitude less than the other wells sampled. Alkalinity, methane and manganese were detected at higher concentrations in GEI-MW-3 relative to the other monitoring wells. A summary of selected natural attenuation parameters measured during the August 2014 monitoring event are presented in Table 3.

7.0 SUMMARY AND RECOMMENDATIONS

7.1. Assessment Summary

Soil assessment activities were conducted June 11 and August 11 through 13, 2014 at the Trolley Barn site located at 404 South 3rd Avenue, Yakima, Washington. Five test pits were excavated to depths ranging between 9½ to 14 feet bgs. Twelve soil borings (GEI-B1 through GEI-B9 and GEI-MW-1 through GEI-MW-3) were advanced to depths between 10 and 25 feet. Three borings were completed as groundwater monitoring wells (GEI-MW-1 through GEI-MW-3).

Field screening conducted by Ecology, using an XRF instrument, indicated arsenic, lead and/or mercury were likely present at concentrations greater than MTCA Method A CULs at depths shallower than 6½ feet bgs in borings GEI-B1, GEI-B3, GEI-B4, GEI-B6, GEI-B8 and monitoring well GEI-MW-3. Laboratory chemical analytical results also indicated lead and cadmium were present at concentrations greater than MTCA Method A CULs in borings GEI-B1, GEI-B4, and GEI-B6 (described below).

Six soil samples from the test pit assessment and 18 samples from the exploratory and monitoring well boring assessment (including two duplicate samples) were submitted for analysis. Site contaminants of concern were either not detected or were detected at concentrations less than Method A CULs in site soil samples with the following exceptions:

- DRPH and ORPH were detected in the sample from boring GEI-B1 at about 2 to 3 feet bgs at concentrations exceeding Method A CULs.
- Benzene was detected in the sample collected from GEI-TP-2 at 12 feet bgs at a concentration that exceeded the Method A CUL.
- Cadmium was detected at concentrations exceeding the Method A CUL in test pit GEI-TP-2 at about 12 feet bgs and borings GEI-B1 and GEI-B4 at about 2 to 3 feet bgs.

- Lead was detected at concentrations exceeding the Method A CUL in test pit GEI-TP-2 at about 12 feet bgs and borings GEI-B1, GEI-B4 and GEI-B6 at about 2 to 3 feet bgs.

Monitoring wells GEI-MW-1 through GEI-MW-3 were constructed on August 12 and 13, 2014. Monitoring well GEI-MW-1 was installed at a downgradient/crossgradient location relative to historical USTs #6 and #7. Monitoring wells GEI-MW-2 and GEI-MW-3 were installed at crossgradient locations relative to the Trolley Barn building. A grab groundwater sample (B8-081214) was collected from boring GEI-B8 using a temporary well screen on August 12, 2014. Groundwater samples were collected from wells GEI-MW-1 through GEI-MW-3 and HWA-MW-1 on September 16, 2014. Based on depth to groundwater measurements and the surveyed well elevations, groundwater flow beneath the site generally was toward the east. Site contaminants of concern were either not detected or were detected at concentrations less than Method A CULs in site groundwater samples with the following exception:

- GRPH, DRPH, ORPH and lead were detected in the grab groundwater sample from boring GEI-B8 at a concentration greater than the MTCA Method A cleanup level. Elevated contaminant concentrations might be caused by turbidity in the groundwater.
- Low levels (less than MTCA Method A CULs) of GRPH and DRPH were detected in the groundwater sample collected from monitoring well GEI-MW-3. Also, natural attenuation parameters indicate biodegradation might be occurring near monitoring well GEI-MW-3. DO and ORP concentrations are significantly lower in GEI-MW-3 relative to the other monitoring wells. Dissolved manganese, total alkalinity and ferrous iron were elevated in GEI-MW-3 relative to the other monitoring wells.
- Detectable concentrations of chloroform were observed in monitoring wells HWA-MW-1 and GEI-MW-2.

7.2. Data Gaps

Based on the results of the soil and groundwater samples collected to date we have identified the following data gaps:

7.2.1. Trolley Barn Property

- Based on the groundwater flow direction observed (to the east), GEI-MW-2 is not in a downgradient location relative to the Trolley Barn. A downgradient monitoring well would provide data regarding potential contaminant migration from the Trolley Barn maintenance pits. **Note:** groundwater monitoring conducted in December 2014 indicated a groundwater flow direction shift to the southeast. This data gap and associated recommendations will be discussed in the December 2014 groundwater monitoring report.
- The groundwater contamination extent near boring GEI-B8 is not defined. The groundwater sample collected from this boring was not obtained from a constructed and developed well; therefore, elevated turbidity in the sample might account for the elevated contaminant concentrations.
- The extent of soil contamination near test pit GEI-TP-2 is not defined. Benzene, cadmium, and lead were detected at concentrations slightly greater than their respective MTCA CULs at about 12 feet bgs.
- The source of GRPH and DRPH detections in the groundwater sample collected from GEI-MW-3 is unknown. Natural attenuation parameters also indicate that natural attenuation of a potential contaminant is occurring near monitoring well GEI-MW-3. A search of the City of Yakima GIS database indicated an 8-inch diameter sewer pipe, oriented north to south between the Trolley Barn and CWCMH

properties, is located about 30 to 40 feet west of the monitoring well. If the sewer pipe is leaking, that could be the cause for the low levels of petroleum-range contaminants detected in GEI-MW-3 and the chloroform detections in HWA-MW-1 and GEI-MW-2. The utility corridor trench, typically backfilled with a high permeability pipe bedding material, might also be a preferential flow path for petroleum hydrocarbon contaminants migrating from an unknown upgradient source.

7.2.2. CWCMMH Property

- The lateral extent of shallow petroleum and metal contaminants near boring GEI-B1, drilled near a historical AST location, is unknown. DRPH, ORPH, cadmium, and lead concentrations each exceeded their respective MTCA Method A CUL in the sample collected from about 2 to 3 feet bgs.
- Shallow metals contamination was detected using the XRF and laboratory samples. The extent of shallow metals contaminated soil is not defined.

7.3. Supplemental Assessment Recommendations

Based on the groundwater flow direction, detected contaminant concentrations, and the data gaps identified, we recommend the following additional actions to assess the site (Note: the following recommendations will be revised in the December 2014 Groundwater Monitoring Report as necessary to reflect the data obtained during that monitoring event):

7.3.1. Trolley Barn Property

1. Install a groundwater monitoring well, identified as GEI-MW-5 on Proposed Monitoring Wells, Figure 4, downgradient (east) of the Trolley Barn to assess potential contaminant migration from the maintenance pits identified during historical assessment activities. Monitoring well GEI-MW-2 was installed southeast of the Trolley Barn to assess if contamination from the pits was migrating. However, the observed groundwater flow direction is to the east and groundwater impacts from the Trolley Barn pits might not be detectable in GEI-MW-2, which appears to be in a crossgradient location relative to the pits.
2. Install a groundwater monitoring well (identified as GEI-MW-4 on Figure 4) east (downgradient) of boring GEI-B8 to assess potential contaminant migration to the east. Similar to monitoring well GEI-MW-2, monitoring GEI-MW-1 was installed in an assumed downgradient (southeast) location relative to the soil and groundwater contaminant detections in exploratory boring GEI-B8. Potential groundwater contamination from this area might not be observed in monitoring well GEI-MW-1, because the observed groundwater flow direction was to the east.
3. Based on the groundwater measurements collected September 2014, monitoring well GEI-MW-3 is located crossgradient instead of the desired upgradient position relative to the Trolley Barn. We recommend installing a new monitoring well (identified as GEI-MW-6 on Figure 4) located west of the Trolley Barn in an upgradient location.
4. We do not recommend additional exploration and soil or groundwater analysis near GEI-MW-3 at this time. Although the natural attenuation parameters suggest biological activity is occurring near the well, the contaminant concentrations are slightly greater than the laboratory reporting limits and less than the MTCA Method A CULs.

7.3.2. CWCMMH Property

We do not recommend additional data gap assessment on the CWCMMH property at this time. Shallow metals and petroleum contamination was observed in three soil borings, however the property is paved with an asphalt parking lot that minimizes both the potential for direct contact with contaminated soils and precipitation infiltration that could mobilize contaminants. We recommend establishing an environmental covenant to govern future site development, including potential soil handling.

8.0 REFERENCES

- GeoEngineers, Inc., "Work Plan, Soil and Groundwater Assessment, Trolley Barn, Yakima, Washington" prepared for Washington State Department of Ecology, GEI File No. 0504-101-01. June 2, 2014.
- Puls, R.W. and Barcelona, M.J., Low-flow (minimal drawdown) ground-water sampling procedures: EPA Ground Water Issue, April 1996, p.1-9.
- U.S. Environmental Protection Agency, Region 1, 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. July 30, 1996.
- U.S. Environmental Protection Agency. "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," EPA-540-R-08-01. June 2008.
- U.S. Environmental Protection Agency. "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.
- U.S. Environmental Protection Agency. "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review," EPA-540-R-10-011. January 2010.

Table 1
Summary of Soil Field Screening Results - Metals¹
Trolley Barn
Yakima, Washington

Boring ID	Depth (feet bgs)	Arsenic		Cadmium		Chromium		Lead		Mercury	
		Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)
GEI-B1	1 ft	<LOD	36.45	<LOD	46.59	<LOD	157.14	781.48	17.51	<LOD	19.91
	2 ft	<LOD	37.48	<LOD	45.18	<LOD	164.79	863.51	18.15	<LOD	18.75
	3 ft	<LOD	15.99	<LOD	46.14	<LOD	171.51	112.93	6.63	17.15	5.65
	3.5 ft	19.86	6.21	<LOD	45.09	<LOD	157.40	177.69	7.81	<LOD	15.40
	4.5 ft	<LOD	8.27	<LOD	47.50	<LOD	155.70	<LOD	10.75	<LOD	15.04
	7 ft	<LOD	9.09	<LOD	47.92	<LOD	166.36	<LOD	11.37	<LOD	15.24
	9 ft	<LOD	8.61	<LOD	48.39	<LOD	186.21	<LOD	10.75	<LOD	14.35
	12 ft	<LOD	8.88	<LOD	47.34	<LOD	171.62	<LOD	11.15	<LOD	14.76
GEI-B2	2 ft	<LOD	10.13	<LOD	47.09	<LOD	152.53	26.88	4.26	<LOD	15.23
	4 ft	<LOD	14.86	<LOD	50.98	<LOD	209.29	69.67	6.09	<LOD	17.51
	4.5 ft	<LOD	13.41	<LOD	47.61	<LOD	168.46	72.16	5.60	<LOD	15.39
	5 ft	<LOD	7.70	<LOD	46.54	<LOD	159.06	<LOD	9.67	<LOD	14.05
	6 ft	<LOD	10.15	<LOD	53.45	<LOD	213.55	15.37	4.41	<LOD	16.56
GEI-B3	1 ft	<LOD	8.57	<LOD	45.55	<LOD	134.39	21.12	3.87	<LOD	13.37
	2 ft	18.22	5.73	<LOD	47.60	<LOD	168.75	133.53	7.11	<LOD	15.04
	5 ft	<LOD	8.15	<LOD	48.03	<LOD	156.50	<LOD	11.22	<LOD	15.90
	6 ft	<LOD	29.58	<LOD	47.98	<LOD	158.03	502.38	13.69	<LOD	16.71
	8 ft	<LOD	8.44	<LOD	47.74	<LOD	165.76	<LOD	10.92	<LOD	15.20
GEI-B4	1 ft	26.89	8.69	<LOD	48.92	<LOD	197.91	334.12	11.32	<LOD	17.44
	2.5 ft	43.94	9.47	<LOD	46.56	<LOD	175.16	436.95	12.44	26.90	6.79
	4 ft	<LOD	16.08	<LOD	51.80	<LOD	191.81	84.69	6.59	<LOD	16.84
	5.5 ft	20.65	6.65	<LOD	48.58	<LOD	189.22	177.27	8.35	<LOD	16.35
	6.5 ft	93.81	10.53	<LOD	48.75	<LOD	177.03	458.55	13.26	42.52	7.82
	7 ft	<LOD	8.28	<LOD	46.79	<LOD	168.13	<LOD	10.54	<LOD	13.74
	9 ft	<LOD	7.96	<LOD	46.38	<LOD	166.00	<LOD	9.81	<LOD	14.42
	9.5 ft	<LOD	8.04	<LOD	46.69	<LOD	168.74	<LOD	10.79	<LOD	15.05
GEI-B6	11 ft	<LOD	8.31	<LOD	48.83	<LOD	179.61	<LOD	10.58	<LOD	13.53
	1 ft	20.89	6.67	<LOD	51.35	<LOD	199.33	159.59	8.33	<LOD	16.74
	2 ft	202.09	12.10	<LOD	49.79	<LOD	186.54	484.67	13.93	<LOD	18.80
	3 ft	32.24	6.69	<LOD	45.79	<LOD	157.38	197.56	8.25	<LOD	15.19
	3.5 ft	<LOD	20.98	<LOD	45.85	<LOD	152.32	238.94	8.97	<LOD	15.71
	4 ft	21.08	3.44	<LOD	50.90	<LOD	169.29	<LOD	10.98	<LOD	15.72

Boring ID	Depth (feet bgs)	Arsenic		Cadmium		Chromium		Lead		Mercury	
		Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)	Result (mg/kg)	+/- (mg/kg)
GEI-B6 (continued)	5 ft	<LOD	8.58	<LOD	49.23	<LOD	173.16	<LOD	10.70	<LOD	15.27
	8 ft	<LOD	7.77	<LOD	46.88	<LOD	154.22	<LOD	10.21	<LOD	13.56
	10 ft	<LOD	9.25	<LOD	50.42	<LOD	201.08	<LOD	11.84	<LOD	14.94
GEI-B8	0.5 ft	<LOD	13.19	<LOD	49.71	<LOD	171.87	65.99	5.69	<LOD	15.37
	1 ft	<LOD	24.02	<LOD	49.19	<LOD	175.04	283.76	10.40	<LOD	15.39
	4 ft	<LOD	8.59	<LOD	48.65	<LOD	176.26	<LOD	11.44	<LOD	16.35
GEI-MW3	0.5 ft	48.58	14.39	<LOD	50.89	<LOD	198.15	947.04	21.05	<LOD	19.99
	0.5 ft	<LOD	31.54	<LOD	50.15	<LOD	197.48	509.57	14.53	<LOD	19.06
	1 ft	<LOD	9.11	<LOD	47.50	<LOD	174.27	18.58	4.06	<LOD	14.32
	Brick-1 ft	<LOD	8.26	<LOD	46.58	<LOD	158.62	<LOD	10.94	<LOD	14.35
	2 ft	<LOD	8.19	<LOD	49.16	<LOD	177.91	<LOD	10.54	<LOD	13.99
	4.5 ft	<LOD	8.58	<LOD	49.61	<LOD	190.76	<LOD	11.61	<LOD	14.48
Surface near Oil Shed	Ground Surface	<LOD	26.64	<LOD	65.61	<LOD	232.84	195.65	11.46	<LOD	24.28
MTCA Method A CUL ²		20		2		19/2000		250		2	

Notes:

¹Metals field screening results provided by the Washington State Department of Ecology. Data obtained using an X-ray fluorescence instrument.

²Model Toxics Control Act (MTCA) Method A cleanup level (CUL).

Bold font indicates the detected metals concentration is greater than the MTCA Method A CUL.

bgs = below ground surface; LOD = Limit of Detection; mg/kg = milligrams per kilogram.

Table 2
Summary of Groundwater Level Measurements
Trolley Barn
Yakima, 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)
HWA-MW-1	1,059.44	09/16/14	0.3	12.00	1,047.44
GEI-MW-1	1,060.41	09/16/14	0.1	13.19	1,047.22
GEI-MW-2	1,061.25	09/16/14	0.3	13.40	1,047.85
GEI-MW-3	1,061.06	09/16/14	0.1	13.34	1,047.72

Notes:

¹Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88). Wells were surveyed by Professional Land Surveyors, Inc. (PLS, Inc.) in August 2014.

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

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

ppm = parts per million

Table 3
Summary of Field-Measured Natural Attenuation Parameters¹
Trolley Barn
Yakima, Washington

Well Number	Date Collected	pH	Specific Conductivity (mS/cm)	Oxidation Reduction Potential - Field ² (mV)	Oxidation Reduction Potential - Normalized ³ (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron ⁴ (Fe ²⁺) (mg/L)	Stabilization (minutes)
HWA-MW-1	09/16/14	6.80	0.2419	178	379	7.26	0.2498	18.22	<0.2	15
GEI-MW-1	09/16/14	6.65	0.2514	96	297	4.94	1.107	18.05	<0.2	18
GEI-MW-2	09/16/14	6.79	0.2436	257	458	7.60	0.1365	18.20	<0.2	21
GEI-MW-3	09/16/14	7.55	0.3054	-133	68	0.70	10.19	18.10	0.75	54

Notes:

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

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

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

⁴Ferrous iron measurements are approximate and based on visual assessment of a HACH Ferrous Iron IR-18C Test.

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

Table 4
Summary of Chemical Analytical Results - Groundwater¹

Trolley Barn
Yakima, Washington

Boring/Test Pit	MTCA Method	B8-081214	HWA-MW-1	GEI-MW-1	GEI-MW-2	GEI-MW-3	MW-Dup
Date Sampled	Levels ²	08/12/14	09/16/14	09/16/14	09/16/14	09/16/14	09/16/14
Method EPA 8260C - NWTPH-Gx and Volatile Organic Compounds (µg/L)							
Gasoline-range hydrocarbons	800/1,000 ³	1,200	<100	<100	<100	128	<100
Methyl tert-butyl ether	20	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00
Benzene	5	0.350	<0.200	<0.200	<0.200	<0.200	<0.200
Ethylbenzene	700	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	1,000	0.570	<1.00	<1.00	<1.00	<1.00	<1.00
o-Xylene	1,000 ⁴	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00
m,p-Xylene		<0.500	<2.00	<2.00	<2.00	<2.00	<2.00
Xylenes (total)	1,000	<1.50	--	--	--	--	--
1,2-Dichloroethane (EDC)	5	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromoethane (EDB)	0.01	--	<1.00 ⁵	<1.00 ⁵	<1.00 ⁵	<1.00 ⁵	<1.00 ⁵
1,2-Dibromo-3-chloropropane	NE	--	<5.00	<5.00	<5.00	<5.00	<5.00
VOCs	Varies ⁶	--	Chloroform - 1.10	--	Chloroform - 1.21	--	Chloroform - 1.16
Method EPA 8270 mod. - Polynuclear Aromatic Compounds (PAH) by GC/MS with Selected Ion Monitoring (µg/L)							
Naphthalene	160 ⁷	14.5	<0.0904	<0.0930	0.0961	<0.0901	<0.0898
2-Methylnaphthalene		0.350	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
1-Methylnaphthalene		29.1	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Acenaphthylene	NE	0.778	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Acenaphthene	NE	0.642	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Fluorene	NE	0.447	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Phenanthrene	NE	<0.195	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Anthracene	NE	<0.195	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Fluoranthene	NE	<0.195	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Pyrene	NE	<0.195	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Benzo (ghi) perylene	NE	<0.195	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898

Boring/Test Pit	MTCA Method	B8-081214	HWA-MW-1	GEI-MW-1	GEI-MW-2	GEI-MW-3	MW-Dup
Date Sampled	Levels ²	08/12/14	09/16/14	09/16/14	09/16/14	09/16/14	09/16/14
Benzo (a) anthracene	0.1 ⁸	<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Chrysene		<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Benzo (b) fluoranthene		<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Benzo (k) fluoranthene		<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Benzo (a) pyrene		<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Indeno (1,2,3-cd) pyrene		<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Dibenzo (a,h) anthracene		<0.195 ⁵	<0.0904	<0.0930	<0.0897	<0.0901	<0.0898
Carcinogenic PAH TEQ ⁹	0.1	0.147	0.0683	0.0702	0.0677	0.0680	0.0678
Method NWTPH-DX - Semivolatile Petroleum Products (µg/L)							
Diesel-range hydrocarbons	500	20,900	<310	<230	<232	266	<228
Heavy oil-range hydrocarbons	500	766	<517 ⁵	<383	<386	<386	<381
Method NWTPH-HCID - Hydrocarbon Identification (µg/L)							
Gasoline-range hydrocarbons	800/1,000 ³	<620	--	--	--	--	--
Diesel-range hydrocarbons	500	18,000	--	--	--	--	--
Heavy oil-range hydrocarbons	500	1,000	--	--	--	--	--
Method 8082A - Polychlorinated Biphenyls (µg/L)							
PCB-1016	0.1	<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1221		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1232		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1242		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1248		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1254		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1260		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
PCB-1268		<0.195 ⁵	<0.0962	<0.0964	<0.0983	<0.0967	<0.0964
Method EPA 200 Series - Total Metals (µg/L)							
Arsenic	5	<20.0 ⁵	<2.00	<2.00	<2.00	<2.00	<2.00
Cadmium	5	<4.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium (total)	50	36.8	<2.00	<2.00	<2.00	<2.00	<2.00
Lead	15	27.7	<2.00	<2.00	<2.00	<2.00	<2.00
Method EPA 245.1 - Total Metals (µg/L)							
Mercury	2	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200

Boring/Test Pit	MTCA Method	B8-081214	HWA-MW-1	GEI-MW-1	GEI-MW-2	GEI-MW-3	MW-Dup
Date Sampled	Levels ²	08/12/14	09/16/14	09/16/14	09/16/14	09/16/14	09/16/14
Method EPA 200.7 - Dissolved Metals (mg/L)							
Manganese	0.05 ¹⁰	–	0.0337	0.0422 J	<0.0100	0.986	<0.0100
Method RSK-175 - Dissolved Gases (mg/L)							
Methane	NE	–	<0.00500	<0.00500	<0.00500	0.00508	<0.00500
Method EPA 300.0 - Anions (mg/L)							
Nitrate-Nitrogen	10 ¹¹	–	3.12	3.58	3.34	1.05	3.26
Sulfate	250 ¹⁰	–	10.6	13.6	10.8	10.7	10.8
Method SM 2320B - Conventional Chemistry Parameters (mg/L)							
Total Alkalinity	NE	–	90.0	80.0	85.0	125	85.0

Notes:

¹Chemical analyses conducted by TestAmerica Laboratories, Inc. of Spokane, Washington.

²Washington State Model Toxics Control Act (MTCA) Method A Unrestricted Land Use cleanup levels. **Bold** font indicates analyte concentrations in excess of respective cleanup levels.

³Gasoline-range petroleum hydrocarbon cleanup levels in groundwater are 800 µg/L when benzene is detected and 1,000 µg/L when benzene is not detected.

⁴Cleanup level for total xylenes (m,p-xylene and o-xylene).

⁵Detection limit for analyte is greater than established cleanup level.

⁶Cleanup levels for VOCs vary based on analyte. Chloroform does not have an established cleanup level. Full list of analyzed VOCs is contained in the laboratory analytical report.

⁷Cleanup level refers to sum of naphthalenes (naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene).

⁸Cleanup level referenced to benzo (a) pyrene. If other carcinogenic PAHs are present, the cleanup level represents the total equivalent carcinogenic PAH concentration.

⁹Carcinogenic PAH toxic equivalency (TEQ) calculated using the factors found in MTCA Table 708-2. The TEQ was calculated using one half the laboratory reporting limit for non-detect.

¹⁰Secondary maximum contaminant level recommended by the Environmental Protection Agency.

¹¹Maximum contaminant level established by Title 40, Volume 19 of the Code of Federal Regulations.

NT = not tested; NE = not established; EPA = Washington State Environmental Protection Agency

J qualifier indicates the data has been qualified as estimated due to the reasons stated in Appendix B.

µg/L = micrograms per liter; mg/L = milligrams per liter

Table 5
Summary of Chemical Analytical Results - Soil¹
Trolley Barn
Yakima, Washington

Boring/Test Pit	MTCA Method	GEI-TP-1 (9.5)	GEI-TP-1a (9)	GEI-TP-1a (12)	GEI-TP-2 (12)	GEI-TP-3 (9)	GEI-TP-4 (9)	GEI-MW-1 (12.5-13.5')	GEI-MW-2 (12-13')	GEI-MW-3 (12-13')	GEI-B1 (2-3')	GEI-B1 (12-13')	GEI-B2 (13-14')	GEI-B3 (7-8')	GEI-B4 (2-3')
Sample Depth (feet)	A Cleanup	9.5	9	12	12	9	9	12.5-13.5	12-13	12-13	2-3	12-13	13-14	7-8	2-3
Date Sampled	Levels ²	06/11/14	06/11/14	06/11/14	06/11/14	06/11/14	06/11/14	08/12/14	08/13/14	08/12/14	08/11/14	08/11/14	08/11/14	08/11/14	08/11/14
Method EPA 8260C - NWTPH-Gx and Volatile Organic Compounds (mg/kg)															
Gasoline-range hydrocarbons	30/100 ³	14.6	NA	NA	23.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.10	<0.0302	NA	NA	<0.0331	NA	NA	<0.0627	<0.0528	<0.0641	<0.0866	NA	<0.0522	<0.0586	NA
Hexane	NA	NA	NA	NA	NA	NA	NA	<0.125	<0.106	<0.128	<0.173	NA	<0.104	<0.117	NA
Tetrachloroethene (PCE)	0.05	NA	NA	NA	NA	NA	NA	<0.0501	<0.0422	<0.0513	<0.0693	NA	<0.0261	<0.0469	NA
Trichloroethene (TCE)	0.03	NA	NA	NA	NA	NA	NA	<0.0313	<0.0264	<0.0320	<0.0433	NA	<0.0417	<0.0293	NA
Benzene	0.03	0.0237	<0.0140	<0.0149	0.0458	NA	NA	<0.0188	<0.0158	<0.0192	<0.0260	NA	<0.0156	<0.0176	NA
Ethylbenzene	6	<0.101	<0.0933	<0.0995	<0.110	NA	NA	<0.125	<0.106	<0.128	<0.173	NA	<0.104	<0.117	NA
Toluene	7	0.124	<0.0933	<0.0995	0.279	NA	NA	<0.125	<0.106	<0.128	<0.173	NA	<0.104	<0.117	NA
o-Xylene	9 ⁴	<0.201	<0.187	<0.199	<0.221	NA	NA	<0.251	<0.211	<0.256	<0.346	NA	<0.209	<0.234	NA
m,p-Xylene		<0.403	<0.373	<0.398	<0.441	NA	NA	<0.501	<0.422	<0.513	<0.693	NA	<0.417	<0.469	NA
Xylenes (total)	9 ⁴	<0.604	<0.560	<0.597	<0.662	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethance (EDC)	NE	<0.101	NA	NA	<0.110	NA	NA	<0.125	<0.106	<0.128	<0.173	NA	<0.104	<0.117	NA
Method EPA 8011 - EDB (µg/kg)															
1,2-Dibromoethane (EDB)	5	<1.02	NA	NA	<0.792	NA	NA	<0.842	<0.934	<0.867	<5.86	NA	<0.945	<0.853	NA
1,2-Dibromo-3-chloropropane	NE	NA	NA	NA	NA	NA	NA	<0.842	<0.934	<0.867	<5.86	NA	<0.945	<0.853	NA
Method EPA 8270 mod. - Polynuclear Aromatic Compounds (PAH) by GC/MS with Selected Ion Monitoring (mg/kg)															
Naphthalene	5 ⁵	<0.373	NA	NA	0.0436	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
2-Methylnaphthalene		<0.373	NA	NA	0.106	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
1-Methylnaphthalene		<0.373	NA	NA	0.0608	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Acenaphthylene	NE	<0.373	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Acenaphthene	NE	<0.373	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Fluorene	NE	<0.373	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Phenanthrene	NE	<0.373	NA	NA	0.0423	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Anthracene	NE	<0.373	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Fluoranthene	NE	<0.373	NA	NA	0.0330	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Pyrene	NE	<0.373	NA	NA	0.0277	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Benzo (ghi) perylene	NE	<0.373	NA	NA	0.0251	NA	NA	<0.0195	<0.0195	<0.0196	<1.46	NA	<0.0202	<0.0184	NA
Benzo (a) anthracene	0.1 ⁶	<0.373 ⁸	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46 ⁸	NA	<0.0202	<0.0184	NA
Chrysene		<0.373 ⁸	NA	NA	0.0330	NA	NA	<0.0195	<0.0195	<0.0196	<1.46 ⁸	NA	<0.0202	<0.0184	NA
Benzo (b) fluoranthene		<0.373 ⁸	NA	NA	0.0409	NA	NA	<0.0195	<0.0195	<0.0196	<1.46 ⁸	NA	<0.0202	<0.0184	NA
Benzo (k) fluoranthene		<0.373 ⁸	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46 ⁸	NA	<0.0202	<0.0184	NA
Benzo (a) pyrene		<0.373 ⁸	NA	NA	<0.0198	NA	NA	<0.0195	<0.0195	<0.0196	<1.46 ⁸	NA	<0.0202	<0.0184	NA
Indeno (1,2,3-cd) pyrene		<0.373 ⁸	NA	NA	0.0225	NA	NA	<0.0195	<0.0195	<0.0196	<1.46 ⁸	NA	<0.0202	<0.0184	NA
Dibenzo (a,h) anthracene		<0.224 ⁸	NA	NA	0.0119	NA	NA	<0.0117	<0.0117	<0.0118	<0.873 ⁸	NA	<0.0121	<0.0111	NA
Carcinogenic PAH TEQ ⁷	0.1	0.274	NA	NA	0.0197	NA	NA	0.0143	0.0143	0.0144	1.073	NA	0.0148	0.0135	NA
Method NWTPH-DX - Semivolatile Petroleum Products (mg/kg)															
Diesel-range hydrocarbons	2,000	115	NA	NA	63.8	NA	86	NA	NA	NA	3,950 J	<10.7	NA	NA	NA
Heavy oil-range hydrocarbons	2,000	244	NA	NA	182	NA	86	NA	NA	NA	15,000	<26.8	NA	NA	NA

Boring/Test Pit	MTCA Method	GEI-TP-1 (9.5)	GEI-TP-1a (9)	GEI-TP-1a (12)	GEI-TP-2 (12)	GEI-TP-3 (9)	GEI-TP-4 (9)	GEI-MW-1 (12.5-13.5')	GEI-MW-2 (12-13')	GEI-MW-3 (12-13')	GEI-B1 (2-3')	GEI-B1 (12-13')	GEI-B2 (13-14')	GEI-B3 (7-8')	GEI-B4 (2-3')
Sample Depth (feet)	A Cleanup	9.5	9	12	12	9	9	12.5-13.5	12-13	12-13	2-3	12-13	13-14	7-8	2-3
Date Sampled	Levels ²	06/11/14	06/11/14	06/11/14	06/11/14	06/11/14	06/11/14	08/12/14	08/13/14	08/12/14	08/11/14	08/11/14	08/11/14	08/11/14	08/11/14
Method NWTPH-HCID - Hydrocarbon Identification (mg/kg)															
Gasoline-range hydrocarbons	30/100 ³	<36	<35	<37	<32	<37	<34	<41	<34	<37	<120	NA	<41	<38	NA
Diesel-range hydrocarbons	2,000	<91	<87	<93	<79	<92	<86	<100	<85	<92	3,100 J	NA	<100	<95	NA
Heavy oil-range hydrocarbons	2,000	210	170 J	110	220	<92	<86	<100	<85	<92	15,000	NA	<100	<95	NA
Method 8082A - Polychlorinated Biphenyls (µg/kg)															
PCB-1016	1,000	<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
PCB-1221		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
PCB-1232		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
PCB-1242		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
PCB-1248		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
PCB-1254		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
PCB-1260		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	188	NA	<9.67	<10.4	NA
PCB-1268		<87.8	NA	NA	<94.4	NA	<89.7	<8.68	<10.3	<9.57	<110	NA	<9.67	<10.4	NA
Method EPA 6010C - Total Metals (mg/kg)															
Arsenic	20	4.74	2.91	NA	5.28	3.44	2.82	3.43	3.23	2.65	9.66	NA	3.06	2.66	14.3
Barium	NE	89.1	67.0	NA	261	56.7	40.1	NA	NA	NA	NA	NA	NA	NA	277 J
Cadmium	2	0.524	0.221	NA	2.02	<0.200	<0.207	<0.404	<0.223	<0.215	2.60	NA	<0.204	<0.197	6.78
Chromium	19/2,000	12.3 J	10.1	NA	14.3	13.0	15.8	17.1	11.5	11.3	20.2	NA	14.9	14.8	18.4 J
Lead	250	94.1	43.9	NA	302	4.71	2.27	4.16	2.96	4.51	806	NA	4.72	3.04	865
Selenium	NE	<2.64	<2.64	NA	<2.49	<2.50	<2.59	NA	NA	NA	NA	NA	NA	NA	<5.29
Silver	NE	<0.527	<0.528	NA	<0.498	<0.500	<0.518	NA	NA	NA	NA	NA	NA	NA	<1.06
Method EPA 7471B - Mercury (µg/kg)															
Mercury	2,000	72.1 J	<48.1	NA	106	43.0	<50.0	<47.2	<43.1	<37.9	512	NA	<37.3	<42.4	203 J

Boring/Test Pit	MTCA Method	GEI-B4 (7-8')	GEI-B5 (2-3')	GEI-B5 (7-8')	GEI-B6 (2-3')	GEI-B6 (13-14')	GEI-B7 (13-14')	GEI-B8 (14-15')	GEI-B9 (13-14')	Duplicate-1 ⁹	Duplicate-2 ⁹
Sample Depth (feet)	A Cleanup	7-8	2-3	7-8	2-3	13-14	13-14	14-15	13-14	NA	NA
Date Sampled	Levels ²	08/11/14	08/11/14	08/11/14	08/11/14	08/11/14	08/12/14	08/12/14	08/13/14	08/11/14	08/12/14
Method EPA 8260C - NWTPH-Gx and Volatile Organic Compounds (mg/kg)											
Gasoline-range hydrocarbons	30/100 ³	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.10	<0.0610	NA	<0.0623	NA	<0.0605	<0.0750	<0.0661	<0.0490	<0.0534	<0.0740
Hexane	NA	<0.122	NA	<0.125	NA	<0.121	<0.150	<0.132	<0.0980	<0.107	<0.148
Tetrachloroethene (PCE)	0.05	<0.0488	NA	<0.0498	NA	<0.0484	<0.0600	<0.0528	<0.0392	<0.0427	<0.0592
Trichloroethene (TCE)	0.03	<0.0305	NA	<0.0311	NA	<0.0303	<0.0375	<0.0330	<0.0245	<0.0267	<0.0370
Benzene	0.03	<0.0183	NA	<0.0187	NA	<0.0182	<0.0225	<0.0198	<0.0147	<0.0160	<0.0222
Ethylbenzene	6	<0.122	NA	<0.125	NA	<0.121	<0.150	<0.132	<0.0980	<0.107	<0.148
Toluene	7	<0.122	NA	<0.125	NA	<0.121	<0.150	<0.132	<0.0980	<0.107	<0.148
o-Xylene	9 ⁴	<0.244	NA	<0.249	NA	<0.242	<0.300	<0.264	<0.196	<0.214	<0.296
m,p-Xylene		<0.488	NA	<0.498	NA	<0.484	<0.600	<0.528	<0.392	<0.427	<0.592
Xylenes (total)	9 ⁴	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane (EDC)	NE	<0.122	NA	<0.125	NA	<0.121	<0.150	<0.132	<0.0980	<0.107	<0.148
Method EPA 8011 - EDB (µg/kg)											
1,2-Dibromoethane (EDB)	5	<0.765	NA	<0.978	NA	<0.929	<1.05	<1.01	<0.922	<0.857	<1.08
1,2-Dibromo-3-chloropropane	NE	<0.765	NA	<0.978	NA	<0.929	<1.05	<1.01	<0.922	<0.857	NA
Method EPA 8270 mod. - Polynuclear Aromatic Compounds (PAH) by GC/MS with Selected Ion Monitoring (mg/kg)											
Naphthalene	5 ⁵	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
2-Methylnaphthalene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
1-Methylnaphthalene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Acenaphthylene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Acenaphthene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Fluorene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Phenanthrene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Anthracene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Fluoranthene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Pyrene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Benzo (ghi) perylene	NE	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Benzo (a) anthracene	0.1 ⁶	<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Chrysene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Benzo (b) fluoranthene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Benzo (k) fluoranthene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Benzo (a) pyrene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Indeno (1,2,3-cd) pyrene		<0.0191	NA	<0.0215	NA	<0.0207	<0.0197	<0.0200	<0.0185	<0.0200	<0.0198
Dibenzo (a,h) anthracene		<0.0115	NA	<0.0129	NA	<0.0124	<0.0118	<0.0120	<0.0111	<0.0120	<0.0119
Carcinogenic PAH TEQ ⁷	0.1	0.0140	NA	0.0158	NA	0.0152	0.0145	0.0147	0.0136	0.0147	0.0146
Method NWTPH-DX - Semivolatile Petroleum Products (mg/kg)											
Diesel-range hydrocarbons	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heavy oil-range hydrocarbons	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Boring/Test Pit	MTCA Method	GEI-B4 (7-8')	GEI-B5 (2-3')	GEI-B5 (7-8')	GEI-B6 (2-3')	GEI-B6 (13-14')	GEI-B7 (13-14')	GEI-B8 (14-15')	GEI-B9 (13-14')	Duplicate-1 ⁹	Duplicate-2 ⁹
Sample Depth (feet)	A Cleanup	7-8	2-3	7-8	2-3	13-14	13-14	14-15	13-14	NA	NA
Date Sampled	Levels ²	08/11/14	08/11/14	08/11/14	08/11/14	08/11/14	08/12/14	08/12/14	08/13/14	08/11/14	08/12/14
Method NWTPH-HCID - Hydrocarbon Identification (mg/kg)											
Gasoline-range hydrocarbons	30/100 ³	<31	NA	<37	NA	<38	<41	<36	<34	<34	<37
Diesel-range hydrocarbons	2,000	<78	NA	<93	NA	<96	<100	<90	<85	<86	<92
Heavy oil-range hydrocarbons	2,000	<78	NA	<93	NA	<96	<100	<90	<85	<86	<92
Method 8082A - Polychlorinated Biphenyls (µg/kg)											
PCB-1016	1,000	<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1221		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1232		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1242		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1248		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1254		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1260		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
PCB-1268		<9.64	NA	<10.1	NA	<10.3	<9.29	<9.46	<10.1	<8.96	<8.86
Method EPA 6010C - Total Metals (mg/kg)											
Arsenic	20	4.40	2.46	2.77	13.4	3.39	3.41	1.86	1.92	6.50	1.40
Barium	NE	NA	60.4	NA	93.4	NA	NA	NA	NA	NA	NA
Cadmium	2	<0.194	<0.187	<0.386	1.24	<0.219	<0.217	<0.195	<0.201	<0.199	<0.220
Chromium	19/2,000	13.5	7.33	16.6	13.2	15.7	15.1	9.40	9.33	15.2	8.83
Lead	250	2.20 J	24.8	3.68	343	4.77	3.71	3.81	3.48	1.40 J	3.11
Selenium	NE	NA	<2.34	NA	<2.62	NA	NA	NA	NA	NA	NA
Silver	NE	NA	<0.468	NA	<0.524	NA	NA	NA	NA	NA	NA
Method EPA 7471B - Mercury (µg/kg)											
Mercury	2,000	<49.0	48.8	194	126	<41.0	<48.1	<36.8	<47.2	<43.9	<49.0

Notes:

¹Chemical analyses conducted by TestAmerica Laboratories, Inc. of Spokane, Washington.

²Washington State Model Toxics Control Act (MTCA) Method A Unrestricted Land Use cleanup levels. **Bold** font indicates analyte concentrations in excess of respective cleanup levels.

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

⁴Cleanup level for total xylenes (m,p-xylene and o-xylene).

⁵Cleanup level refers to sum of naphthalenes (naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene).

⁶Cleanup level referenced to benzo (a) pyrene. If other carcinogenic PAHs are present, the cleanup level represents the total equivalent carcinogenic PAH concentration.

⁷Carcinogenic PAH toxic equivalency (TEQ) calculated using the factors found in MTCA Table 708-2. The TEQ was calculated using one half the laboratory reporting limit for non-detected analytes.

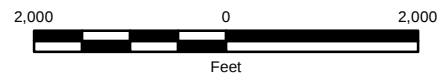
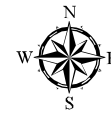
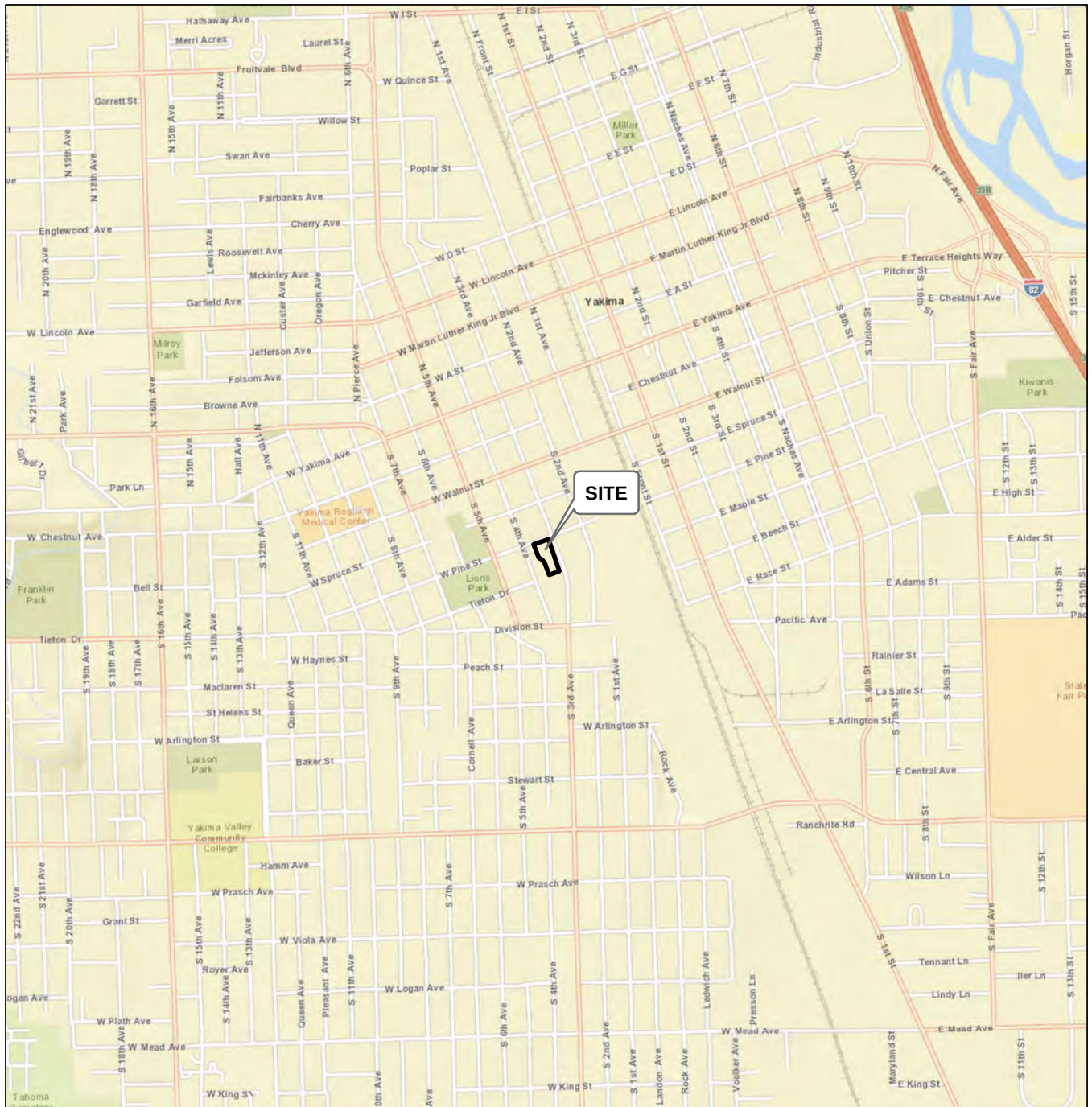
⁸Detection limit for analyte is greater than established cleanup level.

⁹Duplicate samples Duplicate-1 and Duplicate-2 were collected from samples GEI-B4(7-8) and GEI-B8(14-15), respectively.

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

J qualifier indicates the data has been qualified as an estimate due to the reasons stated in Appendix B.

Map Revised: 07 April 2014 ccabrera



Notes:

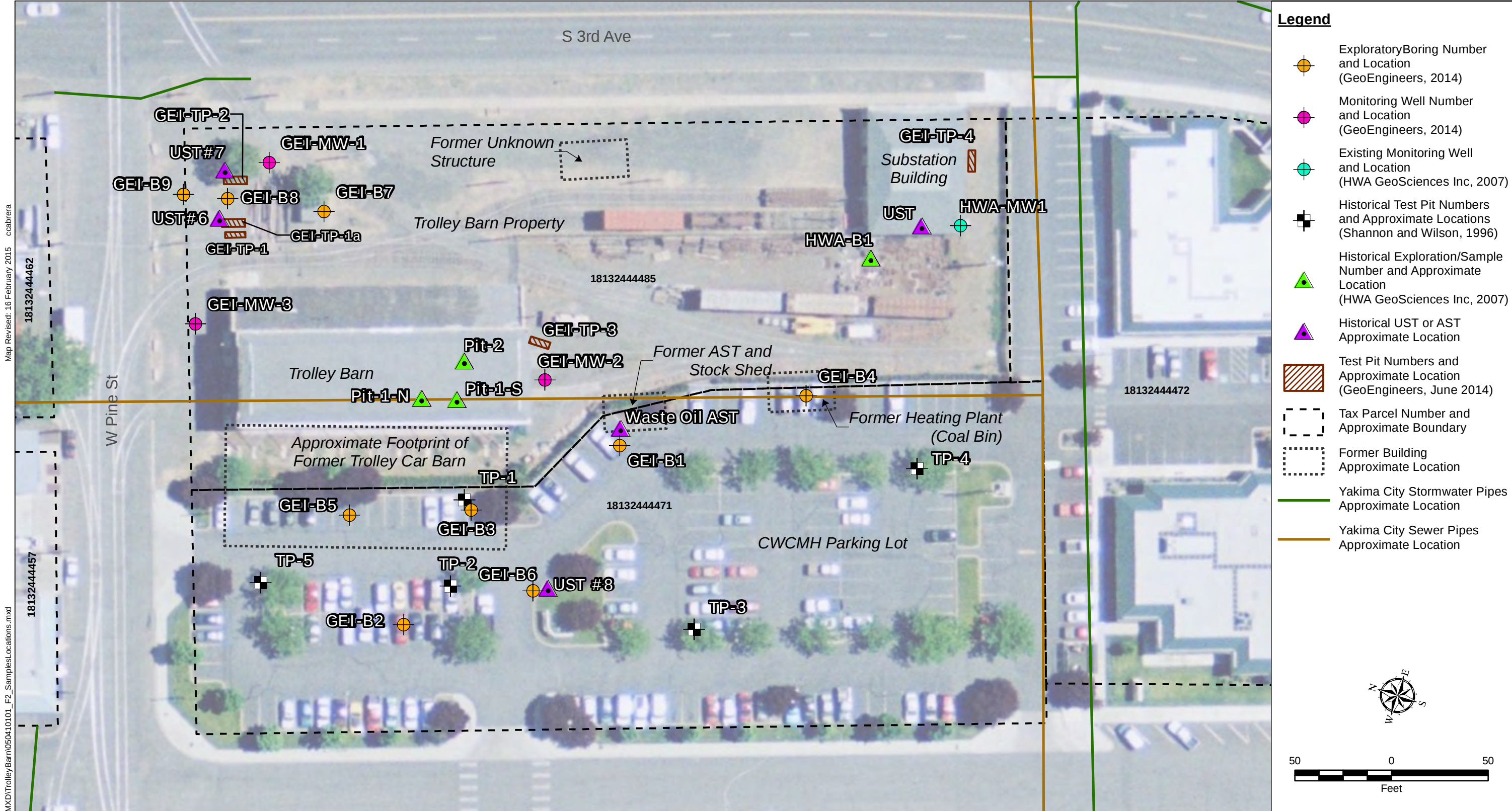
1. The locations of all features shown are approximate.
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document.
- GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
- Data Sources: ESRI Data & Maps, Street Maps 2008.
- Base map from ESRI Data Online.
- Projection: NAD 1983, UTM Zone 10 North.

Vicinity Map

Trolley Barn
Yakima, Washington

GEOENGINEERS

Figure 1

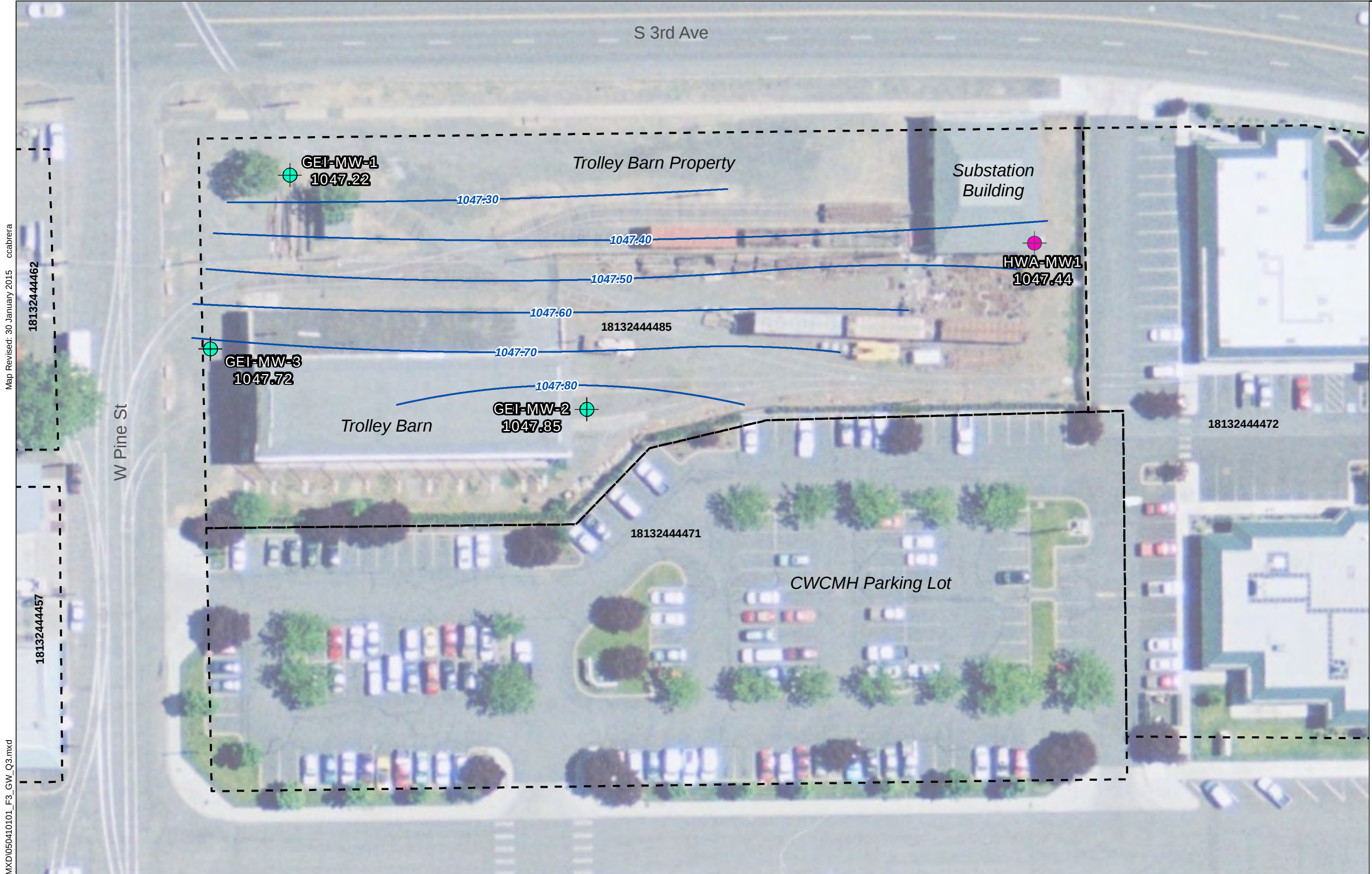


Map Revised: 16 February 2015 ccabrera

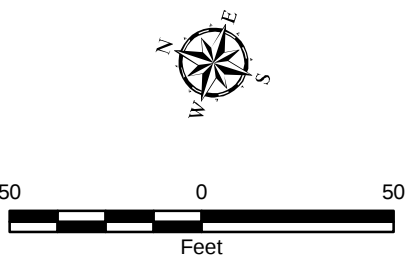
Office: POKT Path: P:\0504101_GIS\MXD\TrolleyBarn\050410101_F2_SamplesLocations.mxd

Data Source: Aerial base from ArcGIS Online.
Tax lot boundary and former building locations from Department of Ecology figure titled "Yakima Valley Trolley Barn Cleanup Site". City of Yakima Sewer and Stormwater Pipes digitized from City online map, <http://gis.yakimawa.gov/cityflex/>
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet
Notes:
1. The locations of 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.

Exploration Locations	
Trolley Barn Yakima, Washington	
GEOENGINEERS	Figure 2



- Legend**
- Monitoring Well Number and Location (GeoEngineers, 2014)
 - Existing Monitoring Well and Location (HWA GeoSciences Inc, 2007)
 - Groundwater Elevation Contour (0.1-foot Interval)
 - Tax Parcel Number and Approximate Boundary



Data Source: Aerial base from ArcGIS Online.
Tax lot boundary from Department of Ecology figure titled "Yakima Valley Trolley Barn Cleanup Site".

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.

Groundwater Contours and Elevations September 16, 2014	
Trolley Barn Yakima, Washington	
GEOENGINEERS	Figure 3



Data Source: Aerial base from ArcGIS Online.
Tax lot boundary and former building locations from Department of Ecology figure titled "Yakima Valley Trolley Barn Cleanup Site".

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Notes:
1. The locations of 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.

Proposed Monitoring Wells

Trolley Barn
Yakima, Washington

GEOENGINEERS

Figure 4

APPENDIX A

Field Procedures and Boring Logs

APPENDIX A

FIELD PROCEDURES AND BORING LOGS

General

Soil assessment activities were conducted on June 11, 2014 and August 11 through 13, 2014 at the Trolley Barn site located at 404 South 3rd Avenue, Yakima, Washington. Five test pits were excavated to depths ranging between 9½ to 14 feet bgs; excavated material was placed back into the test pit. Twelve soil borings (GEI-B1 through GEI-B9 and GEI-MW-1 through GEI-MW-3) were advanced to depths between 10 and 25 feet using sonic drilling methods. Soil borings were backfilled with bentonite chips and patched with asphalt or gravel depending on location. Three borings were completed as groundwater monitoring wells (GEI-MW-1 through GEI-MW-3), as described in this appendix. Soil exploration locations are shown on Figure 2.

Field methods generally were performed in compliance with the project Work Plan dated June 2, 2014 (GeoEngineers, 2014).

Soil Sample Collection

Where practicable, EPA 5035 sampling methods were used to collect the soil samples for GRPH, VOC and fractionalized petroleum hydrocarbon analyses. For analysis of other parameters, soil was placed in laboratory-supplied sample bottles and filled to minimize headspace. Soil samples were stored in a chilled cooler until delivery to the analytical laboratory.

The test pit exploration and sonic drilling operations were monitored by staff from our firm who examined and classified the soil encountered, obtained soil samples, and maintained a continuous log of exploration. Soil encountered in the test pits and borings was classified in general accordance with ASTM D 2488 and the classification chart listed in Key to Exploration Logs, Figure A-1. Logs of the borings are presented in Figures A-2 through A-10. Logs of the monitoring wells are shown in Figures A-11 through A-13. Logs of the test pits are shown in Figures A-14 through A-18. The logs are based on interpretation of the field data and indicate the depth at which subsurface materials or their characteristics change, although these changes might actually be gradual.

Field Screening of Soil Samples

Metals field screening was conducted by Ecology's site manager using an XRF device. Ecology provided the data from the field screening for inclusion in the report. GeoEngineers' field representative performed field-screening tests on soil samples obtained from the test pits and borings. Field screening results were used as a general guideline to assess areas of possible petroleum-related contamination. The field screening methods used include: (1) visual screening; (2) water-sheen screening; and (3) headspace-vapor screening using a MiniRAE PID calibrated to isobutylene on the day of testing.

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

No Sheen	No visible sheen on the water surface.
Slight Sheen	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	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.
Heavy Sheen	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

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

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

Monitoring Well Construction and Development

Monitoring wells GEI-MW-1 through GEI-MW-3 were constructed using approximate 2-inch-diameter Schedule 40 PVC pipe and well screen material with a 0.010-inch slot size. Processed 10-20 Colorado silica sand was used as filter pack. Bentonite chips were used as impermeable backfill. At the ground surface, the wells were protected by steel flush-mount monuments. Well construction details for monitoring wells GEI-MW-1 through GEI-MW-3 are presented graphically in Figures A-11 through A-13, respectively.

After installation, monitoring wells were developed by a combination of pumping and surging until purge water was relatively clear and free of suspended sediment.

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 peristaltic pump with disposable tubing. During purging activities, water quality parameters, including pH, conductivity, temperature, turbidity, ORP and DO, were measured using an In-Situ Troll 9500 multi-parameter meter equipped with a flow-through cell; measurements were recorded approximately every 3 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 generally collected after (1) water quality parameters had stabilized; or (2) a maximum purge time of 60 minutes was achieved. During the September 2014 event, DO did not stabilize in well GEI-MW-3 and purging was stopped at 54 minutes; however, DO was only 0.073 mg/L greater than

the stabilization value and we do not expect this variation to affect the quality of the sample collected. During purging and sampling, purge rate was not allowed to exceed 400 milliliters per minute. Water quality parameter stabilization criteria include the following:

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

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 (COC) procedures were observed during transport of the groundwater samples.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES	
				GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
			CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
			SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SP	POORLY-GRADED SANDS, GRAVELLY SAND
	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

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.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	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

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

Start Drilled 8/11/2014	End 8/11/2014	Total Depth (ft) 15	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample	Water Level				
0						AC			
						GP			
						GP-GM			
				GEI-B1 (2-3) CA			NS	23.9	
5						GP	NS	21.9	
							NS	17.9	
							NS	24.1	
							NS	410	
				GEI-B1 (12-13) CA					
15							NS	19.2	Groundwater encountered at approximately 13½ feet during drilling

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

Log of Boring GEI-B1



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-2
Sheet 1 of 1

Start Drilled 8/11/2014	End 8/11/2014	Total Depth (ft) 20	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS		
	Interval	Recovered (in)	Blows/foot	Collected Sample Sample Name Testing	Water Level					Graphic Log	Group Classification
0				GEL-B2 (13-14) CA							
							AC			Approximately 2 inches asphalt concrete pavement	
							GP			Gray medium to coarse gravel (dense, moist)	
							ML		NS	Brown sandy medium to coarse gravel with brick debris (dense, moist)	
							ML			Brown sandy silt with gravel (medium stiff, moist)	
5									NS		
									NS		
									NS		
10						GP		NS	Gray-light brown sandy medium to coarse gravel with cobbles (dense, moist)		
								NS			
15								NS			
								NS			
								NS			
20											
								NS			

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

Log of Boring GEI-B2



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-3
Sheet 1 of 1

Start Drilled 8/11/2014	End 8/11/2014	Total Depth (ft) 10	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					Not encountered

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample	Water Level				
0						AC			
						GP			
						GP			
							NS	11.2	
5							NS	12.9	
							NS	14.9	
10							NS	3.0	

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

Log of Boring GEI-B3



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-4
Sheet 1 of 1

Start Drilled 8/11/2014	End 8/11/2014	Total Depth (ft) 15	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample	Water Level				
0						AC GP			
				GEI-B4 (2-3) CA		Approximately 2 inches asphalt concrete pavement Gray medium to coarse gravel with cobbles and trace silt (dense, moist)	NS	26.5	
5						Brick debris	NS	7.4	
				GEI-B4 (7-8) CA			NS	31.3	
10							NS	19.9	
							NS	24.1	
15						Grades to wet Increasing silt	NS	19.9	Groundwater encountered at approximately 13½ feet during drilling

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

Log of Boring GEI-B4



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-5
Sheet 1 of 1

Start Drilled 8/11/2014	End 8/11/2014	Total Depth (ft) 10	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					Not encountered

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample Sample Name Testing	Water Level Graphic Log	Group Classification			
0						AC			
						GP			
						ML			
				GEI-B5 (2-3) CA		GP	NS	21.7	
5							NS	16.1	
				GEI-B5 (7-8) CA			NS	31.1	
10							NS	18.4	

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

Log of Boring GEI-B5



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-6
Sheet 1 of 1

Start Drilled 8/11/2014	End 8/11/2014	Total Depth (ft) 20	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample	Water Level				
0						AC			
						GP-GM			
				GEI-B6 (2-3) CA		Approximately 2 inches asphalt concrete pavement			
						Brown sandy medium to coarse gravel with silt and cobbles (dense, moist)	NS	15.9	
						Decreasing silt			
5						SP	NS	12.4	
						GP-GM			
						Brown fine to medium sand with trace silt (dense, moist)			
						Brown sandy medium to coarse gravel with silt and cobbles (dense, moist)	NS	44.8	
10							NS	40.1	
						Grades to wet	NS	41.1	Groundwater encountered at approximately 12 feet during drilling
15				GEI-B6 (13-14) CA			NS	20.9	
							NS	22.1	
20							NS	19.9	

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

Log of Boring GEI-B6



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-7
Sheet 1 of 1

Start Drilled 8/13/2014	End 8/13/2014	Total Depth (ft) 20	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample	Water Level				
0						GP			
						GP			
							NS	9.5	
5							NS	18.5	No recovery from 5 to 10 feet
10							NS	21.8	
15				GEI-B7 (13-14) CA			NS	25.4	Groundwater encountered at approximately 14 feet during drilling
							NS	21.1	
20							NS	22.4	

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

Log of Boring GEI-B7



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

Figure A-8
Sheet 1 of 1

Start Drilled 8/12/2014	End 8/12/2014	Total Depth (ft) 20	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data		Drilling Equipment Sonic, 8-inch casing
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample Sample Name Testing	Water Level				
0						Brown sandy medium to coarse gravel with cobbles (dense, moist)			
							NS	24.2	
5							NS	15.9	
							NS	169.4	High PID readings likely caused by high temperature samples
10							NS	158.5	
							NS	96.2	
15				GEI-B8 (14-15) CA		Grades to wet	NS	79.7	Groundwater encountered at approximately 13½ feet during drilling
							SS	720.1	
20							SS	770.2	

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

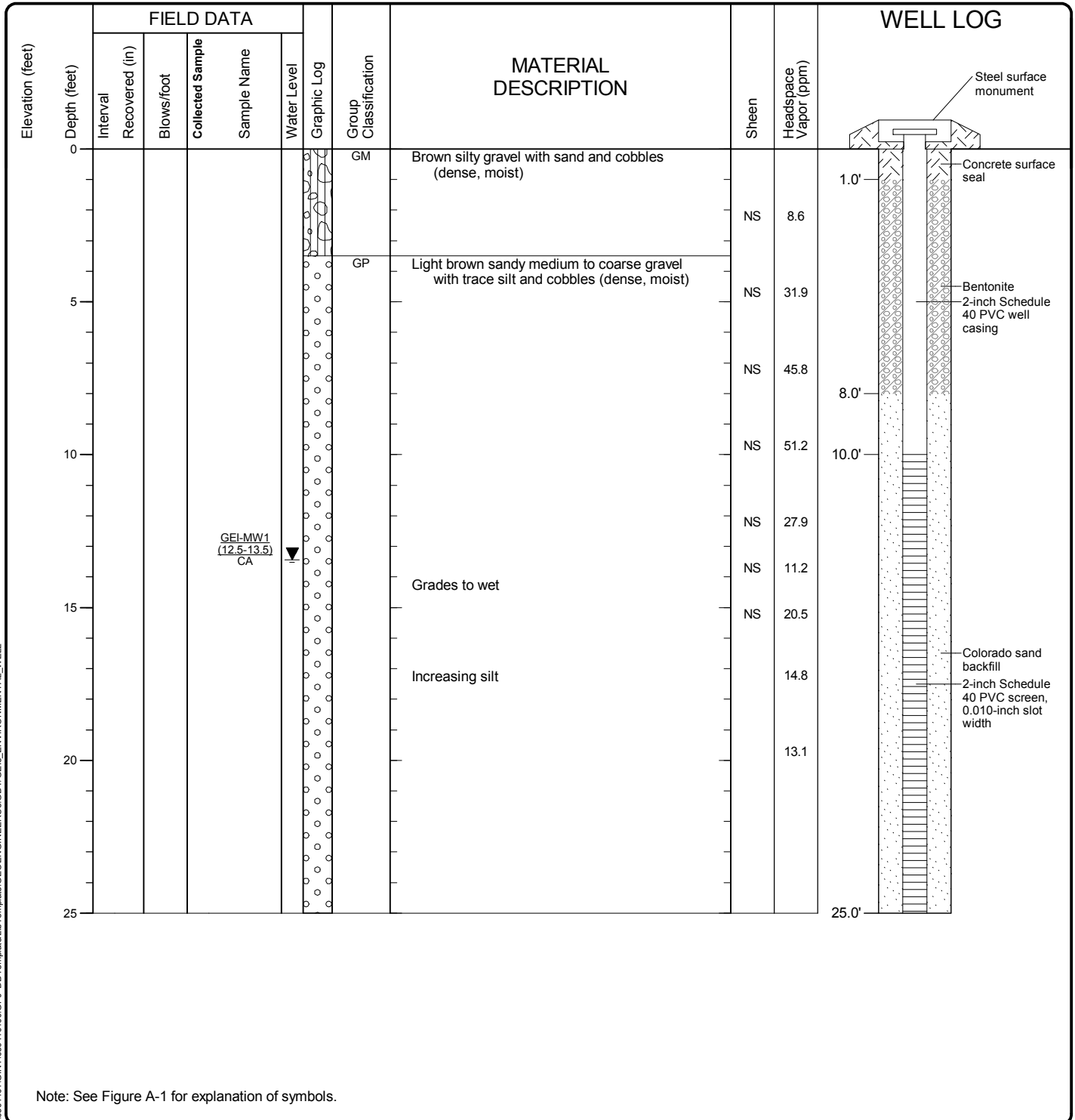
Log of Boring GEI-B8



Project: Trolley Barn
Project Location: Yakima, Washington
Project Number: 0504-101-01

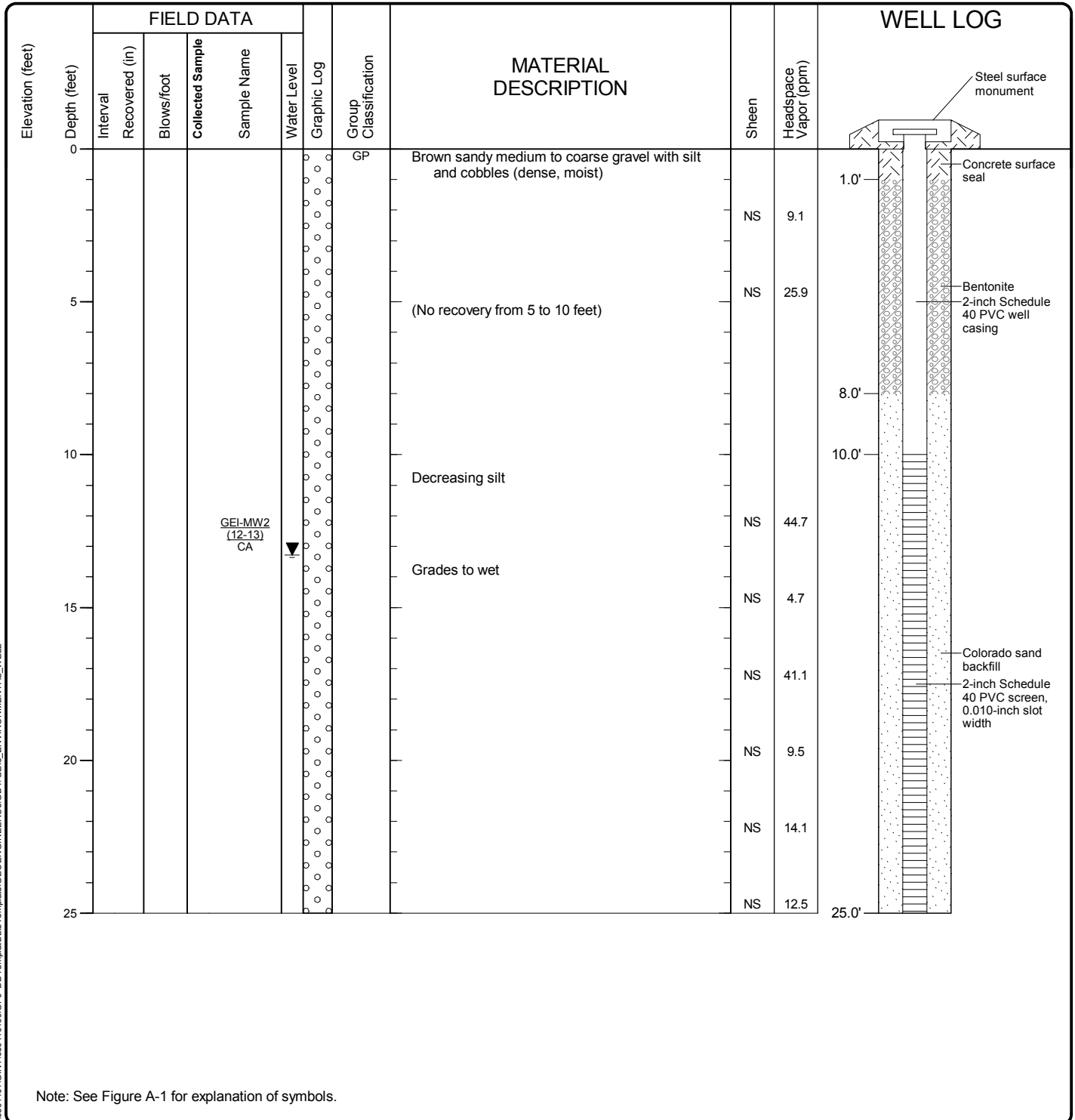
Figure A-9
Sheet 1 of 1

Start Drilled 8/12/2014	End 8/12/2014	Total Depth (ft) 25	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Hammer Data		Drilling Equipment Sonic, 8-inch casing		A 2 (in) well was installed on 8/12/2014 to a depth of 25 (ft).	
Surface Elevation (ft) Vertical Datum Undetermined		Top of Casing Elevation (ft)		Groundwater Date Measured 8/12/2014	
Easting (X) Northing (Y)		Horizontal Datum		Depth to Water (ft) 13.5 Elevation (ft)	
Notes:					



Spokane: Date: 2/16/15 Path: P:\0504-101\GINT\0504101000.GPJ DBTemplate: GEOENGINEERS\GDT\GEI_ENVIRONMENTAL_WELL

Start Drilled 8/13/2014	End 8/13/2014	Total Depth (ft) 25	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Hammer Data		Drilling Equipment Sonic, 8-inch casing		A 2 (in) well was installed on 8/13/2014 to a depth of 25 (ft).	
Surface Elevation (ft) Vertical Datum Undetermined		Top of Casing Elevation (ft)		Groundwater	
Easting (X) Northing (Y)		Horizontal Datum		Date Measured 8/13/2014	Depth to Water (ft) 13.3 Elevation (ft)
Notes:					



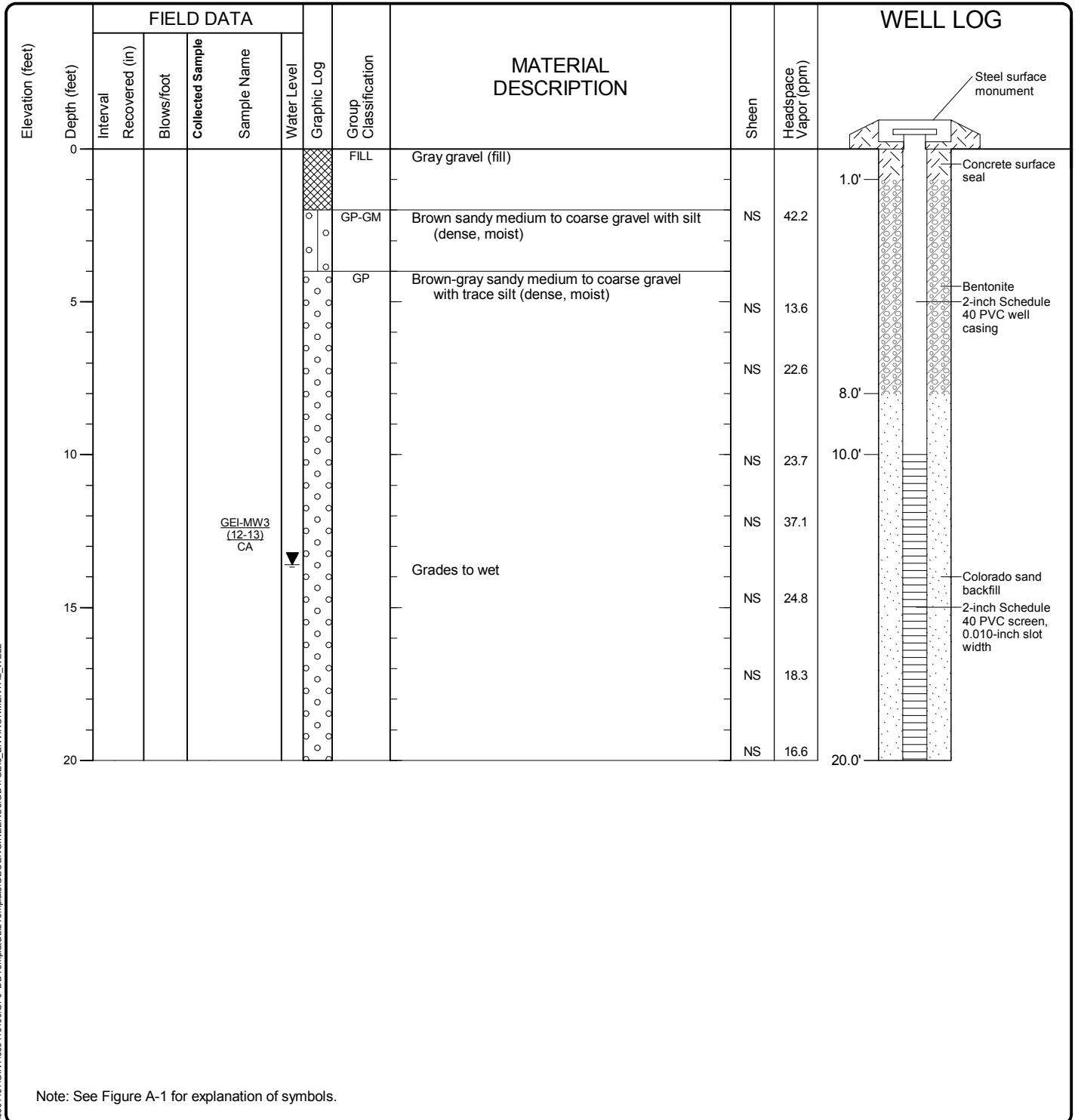
Log of Monitoring Well GEI-MW-2



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-12
 Sheet 1 of 1

Start Drilled 8/12/2014	End 8/13/2014	Total Depth (ft) 20	Logged By Checked By AJF SHL	Driller Cascade Drilling	Drilling Method Sonic
Hammer Data		Drilling Equipment Sonic, 8-inch casing		A 2 (in) well was installed on 8/12/2014 to a depth of 20 (ft).	
Surface Elevation (ft) Vertical Datum Undetermined		Top of Casing Elevation (ft)		Groundwater Date Measured 8/12/2014	
Easting (X) Northing (Y)		Horizontal Datum		Depth to Water (ft) 13.6 Elevation (ft)	
Notes:					



Log of Monitoring Well GEI-MW-3



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-13
 Sheet 1 of 1

Date Excavated: 6/11/2014

Logged By: JML

Equipment: TB285

Total Depth (ft) 9.5

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
		Testing Sample	Sample Name Testing							
	1				GP-GM		Dark brown fine to medium sand with silt, gravel and cobbles			
	2									
	3		TP-1 (3)					NS	<1	
	4									
	5									
	6		TP-1 (6)					NS	<1	
	7									
	8						2 foot by 1 foot concrete debris			
	9		TP-1 (9)					NS	<1	
			TP-1 (9.5) CA				Test pit terminated at 9½ feet due to refusal on large concrete or boulder No groundwater seepage observed No caving observed	NS	7.5	Slight hydrocarbon odor

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

The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit GEI-TP-1



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-14
 Sheet 1 of 1

Date Excavated: 6/11/2014

Logged By: JML

Equipment: TB285

Total Depth (ft) 12.0

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
		Testing Sample	Sample Name Testing							
					SP		Brown fine to medium sand with trace silt, gravel and cobbles			
	1									
	2									
	3							NS	<1	
	4									
	5									
	6						Grades to medium sand	NS	<1	
	7									
	8									
	9		TP-1A (9) CA					NS	<1	
	10									
	11									
	12		TP-1A (12) CA				Test pit terminated at 12 feet due to refusal on concrete slab or large boulder No groundwater seepage observed Caving observed at 2 to 9 feet	NS	<1	

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit GEI-TP-1a



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-15
 Sheet 1 of 1

Date Excavated: 6/11/2014

Logged By: JML

Equipment: TB285

Total Depth (ft) 13.0

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
		Testing Sample	Sample Name Testing							
1					GP		Brown fine to coarse gravel with trace silt, sand and cobbles (moist)			
2										
3			TP-2 (3)					NS	<1	
4										
5										
6			TP-2 (6)					NS	<1	
7										
8										
9			TP-2 (9)					NS	<1	
10										
11										
12			TP-2 (12) CA		SM		Gray silty sand with gravel and cobbles (moist)	NS	<1	
13							Test pit completed at 13 feet No groundwater seepage observed No caving observed			

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit GEI-TP-2



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-16
 Sheet 1 of 1

Date Excavated: 6/11/2014

Logged By: JML

Equipment: TB285

Total Depth (ft) 12.0

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
		Testing Sample	Sample Name Testing							
					MH		Brown clayey silt with sand and gravel (moist)			
1										
2										
3			TP-3 (3)					NS	<1	
4					SP		Brown fine to medium sand with gravel and cobbles			
5										
6			TP-3 (6)					NS	<1	
7										
8							Increased cobbles			
9			TP-3 (9) CA					NS	<1	
10										
11										
12			TP-3 (12)				Test pit completed at 12 feet No groundwater seepage observed Caving observed at about 3 feet	NS	<1	

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

The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit GEI-TP-3



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-17
 Sheet 1 of 1

Date Excavated: 6/11/2014

Logged By: JML

Equipment: TB285

Total Depth (ft) 14.0

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
		Testing Sample	Sample Name Testing							
					GP					
1										
2										
3			TP-4 (3)					NS	<1	
4										
5										
6			TP-4 (6)					NS	<1	
7										
8										
9			TP-4 (9) CA					NS	<1	
10										
11										
12			TP-4 (12)					NS	<1	
13										
14			TP-4 (14)					NS	<1	
							Test pit completed at 14 feet No groundwater seepage observed Caving observed from 3 to 14 feet			

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit GEI-TP-4



Project: Trolley Barn
 Project Location: Yakima, Washington
 Project Number: 0504-101-01

Figure A-18
 Sheet 1 of 1

APPENDIX B

Chemical Analytical Laboratory Reports

APPENDIX B

CHEMICAL ANALYTICAL LABORATORY REPORTS

Samples

COC procedures were followed during the transport of the field samples to TestAmerica. 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

This report documents the results of a United States EPA-defined Stage 2A data validation (EPA Document 540-R-08-005; EPA, 2009) of analytical data from the analyses of soil and groundwater samples collected as part of the 2014 sampling events, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Trolley Barn Site located at 404 South 3rd Street, Yakima, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

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

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

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

- Data package completeness;
- COC documentation;
- Holding times and sample preservation;
- Surrogate recoveries;
- Method blanks;
- Matrix spikes (MS)/matrix spike duplicates (MSD);
- Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD);
- Laboratory and field duplicates; and
- Miscellaneous.

VALIDATED SAMPLE DELIVERY GROUPS

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

TABLE B-1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
SXF0093	GEI-TP-1a(9), GEI-TP-1a(12), GEI-TP-1(9.5), GEI-TP-2(12), GEI-TP-3(9), GEI-TP-4(12)
SXH0089	GEI-B1 (2-3'), GEI-B1 (12-13'), GEI-B2 (13-14'), GEI-B3 (7-8'), GEI-B4 (2-3'), GEI-B4 (7-8'), Duplicate 1, GEI-B5 (2-3'), GEI-B5 (7-8'), GEI-B6 (2-3'), GEI-B6 (13-14'), GEI-B7 (13-14'), GEI-B8 (14-15'), Duplicate 2, GEI-B9 (13-14'), GEI-MW-1 (12.5-13.5'), GEI-MW-2 (12-13'), GEI-MW-3 (12-13'), HWA-MW1-Composite
SXH0092	B8-081214
SXI0111	GEI-MW-1-091614, GEI-MW-2-091614, MW-Dup-091614, GEI-MW-3-091614, HWA-MW-1-091614

CHEMICAL ANALYSIS PERFORMED

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

- HCID (NWTPH-HCID) by Method NWTPH-HCID;
- GRPH (NWTPH-Gx) by Method NWTPH-Gx;
- DRPH and ORPH (NWTPH-Dx) by Method NWTPH-Dx;
- BTEX, MTBE, and EDC by Method SW8260C;
- VOCs by Method SW8260C;
- EDB by Method SW8011;
- PAHs by Method SW8270D-SIM;
- PCBs by Method SW8082A;
- Total metals by Method EPA6010C/EPA200.7/EPA200.8;
- Dissolved manganese by Method EPA200.7;
- Total mercury by Method EPA7471B/EPA245.1;
- Anions by Method EPA300.0;
- Total alkalinity by Method SM2320B; and
- Methane by method RSK-175.

DATA VALIDATION SUMMARY

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

Data Package Completeness

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

Chain-of-Custody Documentation

COC forms were provided with the laboratory analytical report. The COCs were accurate and complete when submitted to the laboratory.

Holding Times and Sample Preservation

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

Surrogate Recoveries

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

Method Blanks

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

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a MS analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. MSD analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

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

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

SDG SXF0093: (PCBs) The laboratory performed an MS/MSD sample set on Sample GEI-TP-2(12). The percent recoveries for Aroclor 1016 and Aroclor 1260 were greater than the control limits in the MS/MSD sample set extracted on June 18, 2014. There were no positive results for these target analytes in the associated field sample; therefore, no action was required for these outliers.

(Mercury) The laboratory performed an MS/MSD sample set on Sample GEI-TP-1(9.5). The RPD for mercury was greater than the control limit in the MS/MSD sample set extracted on June 24, 2014. The positive result for this target analyte was qualified as estimated (J) in this sample.

SDG SXH0089: (EDB) The laboratory performed an MS/MSD sample set on Sample Duplicate 2. The RPD for EDB was greater than the control limit in the MS/MSD sample set extracted on August 15, 2014. There were no positive results for this target analyte in the associated field sample; therefore, no action was required for this outlier.

(PCBs) The laboratory performed an MS/MSD sample set on Sample GEI-MW-1(12.5-13.5'). The percent recovery for Aroclor 1260 was greater than the control limits in the MSD extracted on August 19, 2014. The percent recovery for this target analyte was within the control limits in the corresponding MS. No action was required for this outlier.

(Total Metals) The laboratory performed an MS/MSD sample set on Sample GEI-B4(2-3'). The percent recovery for barium was greater than the control limits in the MS extracted on August 27, 2014. The percent recovery for this target analyte was within the control limits in the corresponding MSD. No action was required for this outlier. Also, the percent recovery for lead was outside the control limits in the same MS/MSD sample set. The parent sample concentration for this target analyte was greater than 4 times the amount spiked into the sample; therefore, no qualification of the data was required.

(Mercury) The laboratory performed an MS/MSD sample set on Sample GEI-B4(2-3'). The percent recovery for mercury was greater than the control limits in the MS extracted on August 28, 2014. The percent recovery for this target analyte was within the control limits in the corresponding MSD. Also, the RPD for mercury was greater than the control limit in the sample MS/MSD sample set. The positive result for this target analyte was qualified as estimated (J) in this sample.

Laboratory Control Samples/Laboratory Control Sample Duplicates

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

analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

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

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than 5 times the reporting limit for that sample, the absolute difference is used instead of the RPD. For organic analyses, the RPD control limits are specified in the laboratory documents. For inorganic analyses, the RPD control limit is 20 percent. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exceptions:

SDG SXF0093: (NWTPH-HCID) A laboratory duplicate analysis was performed on Sample GEI-TP-1(9.5). The RPD for diesel-range hydrocarbons was greater than the control limit. There were no positive results for this target analyte in the associated field sample; therefore, no action was required for this outlier.

A laboratory duplicate analysis was performed on Sample GEI-TP-1a(9). The RPD values for diesel- and heavy oil-range hydrocarbons were greater than the control limit. The positive result for heavy oil-range hydrocarbons was qualified as estimated (J) in this sample. There were no positive results for diesel-range hydrocarbons in the associated field sample; therefore, no action was required.

(Total Metals) A laboratory duplicate analysis was performed on Sample GEI-TP-1(9.5). The RPD for chromium was greater than the control limit. The positive result for this target analyte was qualified as estimated (J) in this sample.

SDG SXH0089: (NWTPH-HCID) A laboratory duplicate analysis was performed on Sample GEI-MW-2 (12-13'). The RPD values for gasoline- and heavy oil-range hydrocarbons were greater than the control limit. There were no positive results for these target analytes in the associated field sample; therefore, no action was required for these outliers.

A laboratory duplicate analysis was performed on Sample GEI-MW-3(12-13'). The RPD values for gasoline-, diesel-, and heavy oil-range hydrocarbons were greater than the control limit. There were no positive results for these target analytes in the associated field sample; therefore, no action was required for these outliers.

(Total Metals) A laboratory duplicate analysis was performed with an RPD that exceeded the control limit; however, it was performed on a sample that was not associated with the samples in this SDG. For this reason, no action was required for this outlier.

A laboratory duplicate analysis was performed on Sample Duplicate 1. The RPD for lead was greater than the control limit. The positive results for this target analyte were qualified as estimated (J) in Samples GEI-B4(7-8') and Duplicate 1.

A laboratory duplicate analysis was performed on Sample GEI-B4(2-3'). The RPD values for barium and chromium were greater than the control limit. The positive results for these target analytes were qualified as estimated (J) in this sample.

(Mercury) A laboratory duplicate analysis was performed on Sample GEI-B4(2-3'). The RPD for mercury was greater than the control limit. The positive result for this target analyte was qualified as estimated (J) in this sample.

SDG SXI0111: (Dissolved Manganese) A laboratory duplicate analysis was performed on Sample GEI-MW-1-091614. The RPD for manganese was greater than the control limit. The positive result for this target analyte was qualified as estimated (J) in this sample.

Field Duplicates

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

SDG SXH0089: There were two field duplicate sample pairs were submitted with this SDG:

- GEI-B4 (7-8')/Duplicate 1
- GEI-B8 (14-15')/Duplicate 2

The precision criteria for all target analytes were met for these sample pairs.

SDG SXI0111: One field duplicate sample pair, GEI-MW-2-091614 and MW-Dup-091614, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair.

Miscellaneous

SDG SXH00889: (NWTPH-HCID/NWTPH-Dx) For Sample GEI-B1(2-3'), the laboratory flagged the diesel-range hydrocarbons result with "Q6," indicating that the diesel-range hydrocarbons result was being influenced by the relative concentration of heavy oil-range hydrocarbons in the sample. For this reason, the positive result for diesel-range hydrocarbons was qualified as estimated (J) in Sample GEI-B1(2-3'), in order to signify a potential high bias.

OVERALL ASSESSMENT

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

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

TABLE B-2: SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Qualifier	Reason
GEI-TP-1(9.5)	Mercury	J	MS/MSD RPD
	Chromium	J	Lab Dup RPD
GEI-TP-1a(9)	Heavy oil-range hydrocarbons	J	Lab Dup RPD
GEI-B1(2-3')	Diesel-range hydrocarbons	J	Other
GEI-B4(2-3')	Mercury	J	MS/MSD/Lab Dup RPD
	Barium	J	Lab Dup RPD
	Chromium	J	Lab Dup RPD
GEI-B4(7-8')	Lead	J	Lab Dup RPD
Duplicate 1	Lead	J	Lab Dup RPD
GEI-MW-1-091614	Manganese	J	Lab Dup RPD

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: SXF0093

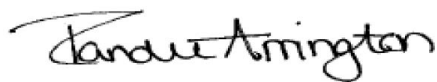
Client Project/Site: 0504-101-01

Client Project Description: Trolley Barn

For:

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

Attn: Scott Lathen



Authorized for release by:
6/27/2014 4:59:16 PM

Randee Arrington, Project Manager
(509)924-9200

Randee.Arrington@testamericainc.com

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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.

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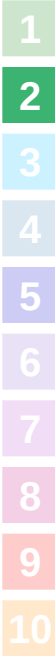


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Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXF0093-04	GEI-TP-1(9.5)	Soil	06/11/14 10:00	06/13/14 13:40
SXF0093-05	GEI-TP-1a(9)	Soil	06/11/14 10:40	06/13/14 13:40
SXF0093-06	GEI-TP-1a(12)	Soil	06/11/14 10:50	06/13/14 13:40
SXF0093-10	GEI-TP-2(12)	Soil	06/11/14 12:10	06/13/14 13:40
SXF0093-13	GEI-TP-3(9)	Soil	06/11/14 14:35	06/13/14 13:40
SXF0093-18	GEI-TP-4(12)	Soil	06/11/14 17:00	06/13/14 13:40

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
RL2	Reporting limit raised due to high concentrations of hydrocarbons.

Fuels

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
Q6	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

Metals

Qualifier	Qualifier Description
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
R	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-1(9.5)

Lab Sample ID: SXF0093-04

Date Collected: 06/11/14 10:00

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0302		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
Benzene	0.0237		0.0151		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
Toluene	0.124		0.101		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
Ethylbenzene	ND		0.101		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
m,p-Xylene	ND		0.403		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
o-Xylene	ND		0.201		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
1,2-Dichloroethane (EDC)	ND		0.101		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
Xylenes (total)	ND		0.604		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.0		42.4 - 163				06/16/14 07:52	06/16/14 15:26	1.00
1,2-dichloroethane-d4	92.5		50 - 150				06/16/14 07:52	06/16/14 15:26	1.00
Toluene-d8	103		45.8 - 155				06/16/14 07:52	06/16/14 15:26	1.00
4-bromofluorobenzene	103		41.5 - 162				06/16/14 07:52	06/16/14 15:26	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	14.6		5.03		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:26	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.0		42.4 - 163				06/16/14 07:52	06/16/14 15:26	1.00
Toluene-d8	103		45.8 - 155				06/16/14 07:52	06/16/14 15:26	1.00
4-bromofluorobenzene	103		41.5 - 162				06/16/14 07:52	06/16/14 15:26	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.02		ug/kg dry	☼	06/16/14 10:39	06/23/14 15:09	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1221	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1232	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1242	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1248	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1254	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1260	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
PCB-1268	ND		87.8		ug/kg dry	☼	06/18/14 09:02	06/19/14 17:47	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	107		46.2 - 210				06/18/14 09:02	06/19/14 17:47	1.00
Decachlorobiphenyl	101		65.6 - 186				06/18/14 09:02	06/19/14 17:47	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
2-Methylnaphthalene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
1-Methylnaphthalene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Acenaphthylene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Acenaphthene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Fluorene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-1(9.5)

Lab Sample ID: SXF0093-04

Date Collected: 06/11/14 10:00

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Anthracene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Fluoranthene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Pyrene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Benzo (a) anthracene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Chrysene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Benzo (b) fluoranthene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Benzo (k) fluoranthene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Benzo (a) pyrene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Indeno (1,2,3-cd) pyrene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Dibenzo (a,h) anthracene	ND	RL2	0.224		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0
Benzo (ghi) perylene	ND	RL2	0.373		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:35	20.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	64.0		36.3 - 152	06/16/14 08:14	06/16/14 19:35	20.0
2-FBP	68.0		30.2 - 135	06/16/14 08:14	06/16/14 19:35	20.0
p-Terphenyl-d14	76.0		65.1 - 134	06/16/14 08:14	06/16/14 19:35	20.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	115		62.3		mg/kg dry	☼	06/19/14 08:02	06/20/14 14:14	1.00
Heavy Oil Range Hydrocarbons	244		156		mg/kg dry	☼	06/19/14 08:02	06/20/14 14:14	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	101		50 - 150	06/19/14 08:02	06/20/14 14:14	1.00
n-Triacontane-d62	98.6		50 - 150	06/19/14 08:02	06/20/14 14:14	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		36		mg/kg dry	☼	06/16/14 10:43	06/16/14 18:02	1.0
Diesel Range Hydrocarbons	ND		91		mg/kg dry	☼	06/16/14 10:43	06/16/14 18:02	1.0
Heavy Oil Range Hydrocarbons	210		91		mg/kg dry	☼	06/16/14 10:43	06/16/14 18:02	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	89.9		50 - 150	06/16/14 10:43	06/16/14 18:02	1.0
2-FBP	98.2		50 - 150	06/16/14 10:43	06/16/14 18:02	1.0
p-Terphenyl-d14	88.7		50 - 150	06/16/14 10:43	06/16/14 18:02	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.74		1.32		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00
Barium	89.1		0.527		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00
Cadmium	0.524		0.211		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00
Chromium	12.3		0.527		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00
Lead	94.1		1.32		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00
Selenium	ND		2.64		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00
Silver	ND		0.527		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:24	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	72.1		49.0		ug/kg dry	☼	06/24/14 09:00	06/24/14 15:57	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-1a(9)

Lab Sample ID: SXF0093-05

Date Collected: 06/11/14 10:40

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0140		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:24	1.00
Toluene	ND		0.0933		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:24	1.00
Ethylbenzene	ND		0.0933		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:24	1.00
m,p-Xylene	ND		0.373		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:24	1.00
o-Xylene	ND		0.187		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:24	1.00
Xylenes (total)	ND		0.560		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:24	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.9		42.4 - 163	06/24/14 09:06	06/24/14 11:24	1.00
1,2-dichloroethane-d4	96.3		50 - 150	06/24/14 09:06	06/24/14 11:24	1.00
Toluene-d8	104		45.8 - 155	06/24/14 09:06	06/24/14 11:24	1.00
4-bromofluorobenzene	97.5		41.5 - 162	06/24/14 09:06	06/24/14 11:24	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		35		mg/kg dry	☼	06/16/14 10:43	06/16/14 18:50	1.0
Diesel Range Hydrocarbons	ND		87		mg/kg dry	☼	06/16/14 10:43	06/16/14 18:50	1.0
Heavy Oil Range Hydrocarbons	170		87		mg/kg dry	☼	06/16/14 10:43	06/16/14 18:50	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	98.2		50 - 150	06/16/14 10:43	06/16/14 18:50	1.0
2-FBP	102		50 - 150	06/16/14 10:43	06/16/14 18:50	1.0
p-Terphenyl-d14	89.8		50 - 150	06/16/14 10:43	06/16/14 18:50	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.91		1.32		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00
Barium	67.0		0.528		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00
Cadmium	0.221		0.211		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00
Chromium	10.1		0.528		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00
Lead	43.9		1.32		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00
Selenium	ND		2.64		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00
Silver	ND		0.528		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:43	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		48.1		ug/kg dry	☼	06/24/14 09:00	06/24/14 16:06	1.00

Client Sample ID: GEI-TP-1a(12)

Lab Sample ID: SXF0093-06

Date Collected: 06/11/14 10:50

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0149		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:46	1.00
Toluene	ND		0.0995		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:46	1.00
Ethylbenzene	ND		0.0995		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:46	1.00
m,p-Xylene	ND		0.398		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:46	1.00
o-Xylene	ND		0.199		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:46	1.00
Xylenes (total)	ND		0.597		mg/kg dry	☼	06/24/14 09:06	06/24/14 11:46	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-1a(12)

Lab Sample ID: SXF0093-06

Date Collected: 06/11/14 10:50

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		42.4 - 163	06/24/14 09:06	06/24/14 11:46	1.00
1,2-dichloroethane-d4	94.8		50 - 150	06/24/14 09:06	06/24/14 11:46	1.00
Toluene-d8	102		45.8 - 155	06/24/14 09:06	06/24/14 11:46	1.00
4-bromofluorobenzene	99.7		41.5 - 162	06/24/14 09:06	06/24/14 11:46	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		37		mg/kg dry	☼	06/23/14 16:14	06/23/14 17:30	1.0
Diesel Range Hydrocarbons	ND		93		mg/kg dry	☼	06/23/14 16:14	06/23/14 17:30	1.0
Heavy Oil Range Hydrocarbons	110		93		mg/kg dry	☼	06/23/14 16:14	06/23/14 17:30	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	131		50 - 150	06/23/14 16:14	06/23/14 17:30	1.0
2-FBP	108		50 - 150	06/23/14 16:14	06/23/14 17:30	1.0
p-Terphenyl-d14	90.1		50 - 150	06/23/14 16:14	06/23/14 17:30	1.0

Client Sample ID: GEI-TP-2(12)

Lab Sample ID: SXF0093-10

Date Collected: 06/11/14 12:10

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0331		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
Benzene	0.0458		0.0166		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
Toluene	0.279		0.110		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
Ethylbenzene	ND		0.110		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
m,p-Xylene	ND		0.441		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
o-Xylene	ND		0.221		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
1,2-Dichloroethane (EDC)	ND		0.110		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00
Xylenes (total)	ND		0.662		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	97.5		42.4 - 163	06/16/14 07:52	06/16/14 15:48	1.00
1,2-dichloroethane-d4	92.7		50 - 150	06/16/14 07:52	06/16/14 15:48	1.00
Toluene-d8	104		45.8 - 155	06/16/14 07:52	06/16/14 15:48	1.00
4-bromofluorobenzene	106		41.5 - 162	06/16/14 07:52	06/16/14 15:48	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	23.6		5.52		mg/kg dry	☼	06/16/14 07:52	06/16/14 15:48	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	97.5		42.4 - 163	06/16/14 07:52	06/16/14 15:48	1.00
Toluene-d8	104		45.8 - 155	06/16/14 07:52	06/16/14 15:48	1.00
4-bromofluorobenzene	106		41.5 - 162	06/16/14 07:52	06/16/14 15:48	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.792		ug/kg dry	☼	06/16/14 10:39	06/23/14 16:19	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-2(12)

Lab Sample ID: SXF0093-10

Date Collected: 06/11/14 12:10

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.7

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1221	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1232	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1242	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1248	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1254	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1260	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
PCB-1268	ND		94.4		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:03	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	122		46.2 - 210				06/18/14 09:02	06/19/14 18:03	1.00
Decachlorobiphenyl	117		65.6 - 186				06/18/14 09:02	06/19/14 18:03	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0436		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
2-Methylnaphthalene	0.106		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
1-Methylnaphthalene	0.0608		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Acenaphthylene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Acenaphthene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Fluorene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Phenanthrene	0.0423		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Anthracene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Fluoranthene	0.0330		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Pyrene	0.0277		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Benzo (a) anthracene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Chrysene	0.0330		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Benzo (b) fluoranthene	0.0409		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Benzo (k) fluoranthene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Benzo (a) pyrene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Indeno (1,2,3-cd) pyrene	0.0225		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Dibenzo (a,h) anthracene	0.0119		0.0119		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Benzo (ghi) perylene	0.0251		0.0198		mg/kg dry	☼	06/16/14 08:14	06/17/14 14:02	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73.0		36.3 - 152				06/16/14 08:14	06/17/14 14:02	1.00
2-FBP	72.6		30.2 - 135				06/16/14 08:14	06/17/14 14:02	1.00
p-Terphenyl-d14	90.6		65.1 - 134				06/16/14 08:14	06/17/14 14:02	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	63.8		16.3		mg/kg dry	☼	06/19/14 08:02	06/20/14 14:37	1.00
Heavy Oil Range Hydrocarbons	182		40.8		mg/kg dry	☼	06/19/14 08:02	06/20/14 14:37	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	103		50 - 150				06/19/14 08:02	06/20/14 14:37	1.00
n-Triacontane-d62	103		50 - 150				06/19/14 08:02	06/20/14 14:37	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		32		mg/kg dry	☼	06/16/14 10:43	06/16/14 19:38	1.0

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-2(12)

Lab Sample ID: SXF0093-10

Date Collected: 06/11/14 12:10

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.7

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		79		mg/kg dry	☼	06/16/14 10:43	06/16/14 19:38	1.0
Heavy Oil Range Hydrocarbons	220		79		mg/kg dry	☼	06/16/14 10:43	06/16/14 19:38	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	96.1		50 - 150				06/16/14 10:43	06/16/14 19:38	1.0
2-FBP	99.4		50 - 150				06/16/14 10:43	06/16/14 19:38	1.0
p-Terphenyl-d14	87.4		50 - 150				06/16/14 10:43	06/16/14 19:38	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.28		1.25		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00
Barium	261		0.498		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00
Cadmium	2.02		0.199		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00
Chromium	14.3		0.498		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00
Lead	302		1.25		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00
Selenium	ND		2.49		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00
Silver	ND		0.498		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:47	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	106		44.6		ug/kg dry	☼	06/24/14 09:00	06/24/14 16:08	1.00

Client Sample ID: GEI-TP-3(9)

Lab Sample ID: SXF0093-13

Date Collected: 06/11/14 14:35

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 96.1

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		37		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:02	1.0
Diesel Range Hydrocarbons	ND		92		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:02	1.0
Heavy Oil Range Hydrocarbons	ND		92		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:02	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	99.4		50 - 150				06/16/14 10:43	06/16/14 20:02	1.0
2-FBP	101		50 - 150				06/16/14 10:43	06/16/14 20:02	1.0
p-Terphenyl-d14	96.7		50 - 150				06/16/14 10:43	06/16/14 20:02	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.44		1.25		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00
Barium	56.7		0.500		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00
Cadmium	ND		0.200		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00
Chromium	13.0		0.500		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00
Lead	4.71		1.25		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00
Selenium	ND		2.50		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00
Silver	ND		0.500		mg/kg dry	☼	06/20/14 11:29	06/27/14 12:51	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	43.0		42.4		ug/kg dry	☼	06/24/14 09:00	06/24/14 16:10	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-4(12)

Lab Sample ID: SXF0093-18

Date Collected: 06/11/14 17:00

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 96.6

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1221	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1232	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1242	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1248	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1254	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1260	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00
PCB-1268	ND		89.7		ug/kg dry	☼	06/18/14 09:02	06/19/14 18:50	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	91.8		46.2 - 210	06/18/14 09:02	06/19/14 18:50	1.00
Decachlorobiphenyl	80.7		65.6 - 186	06/18/14 09:02	06/19/14 18:50	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		34		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:27	1.0
Diesel Range Hydrocarbons	ND		86		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:27	1.0
Heavy Oil Range Hydrocarbons	ND		86		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:27	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	96.7		50 - 150	06/16/14 10:43	06/16/14 20:27	1.0
2-FBP	99.0		50 - 150	06/16/14 10:43	06/16/14 20:27	1.0
p-Terphenyl-d14	96.6		50 - 150	06/16/14 10:43	06/16/14 20:27	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.82		1.29		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00
Barium	40.1		0.518		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00
Cadmium	ND		0.207		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00
Chromium	15.8		0.518		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00
Lead	2.27		1.29		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00
Selenium	ND		2.59		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00
Silver	ND		0.518		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:09	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		50.0		ug/kg dry	☼	06/24/14 09:00	06/24/14 16:13	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0097-BLK1

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Benzene	ND		0.0150		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Toluene	ND		0.100		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Ethylbenzene	ND		0.100		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
m,p-Xylene	ND		0.400		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
o-Xylene	ND		0.200		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Xylenes (total)	ND		0.600		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	96.3		42.4 - 163	06/16/14 07:52	06/16/14 09:46	1.00
1,2-dichloroethane-d4	93.0		50 - 150	06/16/14 07:52	06/16/14 09:46	1.00
Toluene-d8	102		45.8 - 155	06/16/14 07:52	06/16/14 09:46	1.00
4-bromofluorobenzene	100		41.5 - 162	06/16/14 07:52	06/16/14 09:46	1.00
a,a,a - Trifluorotoluene	93.6		50 - 150	06/16/14 07:52	06/16/14 09:46	1.00

Lab Sample ID: 14F0097-BS1

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.516		mg/kg wet		103	79 - 127
Benzene	0.500	0.493		mg/kg wet		98.6	75.9 - 123
Toluene	0.500	0.521		mg/kg wet		104	77.3 - 126
Ethylbenzene	0.500	0.485		mg/kg wet		97.0	80 - 120
m,p-Xylene	0.500	0.500		mg/kg wet		100	80 - 120
o-Xylene	0.500	0.502		mg/kg wet		100	80 - 120
Naphthalene	0.500	0.508		mg/kg wet		102	58.8 - 130
Xylenes (total)	1.00	1.00		mg/kg wet		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	100		42.4 - 163
1,2-dichloroethane-d4	99.9		50 - 150
Toluene-d8	101		45.8 - 155
4-bromofluorobenzene	100		41.5 - 162
a,a,a - Trifluorotoluene	105		60 - 120

Lab Sample ID: 14F0097-BSD1

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	0.500	0.484		mg/kg wet		96.8	79 - 127	6.50	25
Benzene	0.500	0.453		mg/kg wet		90.6	75.9 - 123	8.46	25
Toluene	0.500	0.475		mg/kg wet		95.0	77.3 - 126	9.24	25
Ethylbenzene	0.500	0.447		mg/kg wet		89.4	80 - 120	8.15	25
m,p-Xylene	0.500	0.456		mg/kg wet		91.1	80 - 120	9.41	25

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0097-BSD1

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	0.500	0.457		mg/kg wet		91.4	80 - 120	9.29	25
Naphthalene	0.500	0.502		mg/kg wet		100	58.8 - 130	0.990	25
Xylenes (total)	1.00	0.912		mg/kg wet		91.2	80 - 120	9.35	25

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
Dibromofluoromethane	99.1		42.4 - 163
1,2-dichloroethane-d4	100		50 - 150
Toluene-d8	101		45.8 - 155
4-bromofluorobenzene	98.4		41.5 - 162
a,a,a - Trifluorotoluene	101		60 - 120

Lab Sample ID: 14F0150-BLK1

Matrix: Soil

Analysis Batch: 14F0150

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0150_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00
Benzene	ND		0.0150		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00
Toluene	ND		0.100		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00
Ethylbenzene	ND		0.100		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00
m,p-Xylene	ND		0.400		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00
o-Xylene	ND		0.200		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00
Xylenes (total)	ND		0.600		mg/kg wet		06/24/14 09:06	06/24/14 10:39	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	102		42.4 - 163	06/24/14 09:06	06/24/14 10:39	1.00
1,2-dichloroethane-d4	98.6		50 - 150	06/24/14 09:06	06/24/14 10:39	1.00
Toluene-d8	99.5		45.8 - 155	06/24/14 09:06	06/24/14 10:39	1.00
4-bromofluorobenzene	91.7		41.5 - 162	06/24/14 09:06	06/24/14 10:39	1.00

Lab Sample ID: 14F0150-BS1

Matrix: Soil

Analysis Batch: 14F0150

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0150_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.568		mg/kg wet		114	79 - 127
Benzene	0.500	0.462		mg/kg wet		92.4	75.9 - 123
Toluene	0.500	0.520		mg/kg wet		104	77.3 - 126
Ethylbenzene	0.500	0.530		mg/kg wet		106	80 - 120
m,p-Xylene	0.500	0.515		mg/kg wet		103	80 - 120
o-Xylene	0.500	0.516		mg/kg wet		103	80 - 120
Naphthalene	0.500	0.449		mg/kg wet		89.8	58.8 - 130
Xylenes (total)	1.00	1.03		mg/kg wet		103	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	99.9		42.4 - 163
1,2-dichloroethane-d4	104		50 - 150

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0150-BS1

Matrix: Soil

Analysis Batch: 14F0150

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0150_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8	102		45.8 - 155
4-bromofluorobenzene	94.4		41.5 - 162

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

Lab Sample ID: 14F0097-BLK1

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	96.3		42.4 - 163				06/16/14 07:52	06/16/14 09:46	1.00
Toluene-d8	102		45.8 - 155				06/16/14 07:52	06/16/14 09:46	1.00
4-bromofluorobenzene	100		41.5 - 162				06/16/14 07:52	06/16/14 09:46	1.00

Lab Sample ID: 14F0097-BS2

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	50.0	53.1		mg/kg wet		106	74.4 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane	99.5		42.4 - 163				
Toluene-d8	103		45.8 - 155				
4-bromofluorobenzene	100		41.5 - 162				

Lab Sample ID: 14F0097-BSD2

Matrix: Soil

Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 14F0097_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Hydrocarbons	50.0	49.6		mg/kg wet		99.2	74.4 - 124	6.72	20
Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits						
Dibromofluoromethane	97.6		42.4 - 163						
Toluene-d8	103		45.8 - 155						
4-bromofluorobenzene	101		41.5 - 162						

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14F0102-BLK1

Matrix: Soil

Analysis Batch: 14F0102

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0102_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		06/16/14 10:39	06/23/14 14:22	1.00
1,2-Dibromo-3-chloropropane	ND		1.00		ug/kg wet		06/16/14 10:39	06/23/14 14:22	1.00

Lab Sample ID: 14F0102-BS1

Matrix: Soil

Analysis Batch: 14F0102

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0102_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	6.19		ug/kg wet		124	60 - 140
1,2-Dibromo-3-chloropropane	5.00	5.36		ug/kg wet		107	60 - 140

Lab Sample ID: 14F0102-MS1

Matrix: Soil

Analysis Batch: 14F0102

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0102_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	ND		4.57	5.15		ug/kg dry	☼	113	60 - 140
1,2-Dibromo-3-chloropropane	ND		4.57	4.06		ug/kg dry	☼	88.8	60 - 140

Lab Sample ID: 14F0102-MSD1

Matrix: Soil

Analysis Batch: 14F0102

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0102_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		4.83	5.18		ug/kg dry	☼	107	60 - 140	0.551	20
1,2-Dibromo-3-chloropropane	ND		4.83	3.94		ug/kg dry	☼	81.6	60 - 140	2.80	20

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Lab Sample ID: 14F0115-BLK1

Matrix: Soil

Analysis Batch: 14F0115

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0115_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1221	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1232	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1242	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1248	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1254	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1260	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00
PCB-1268	ND		100		ug/kg wet		06/18/14 09:02	06/19/14 16:59	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	94.0		46.2 - 210	06/18/14 09:02	06/19/14 16:59	1.00
Decachlorobiphenyl	122		65.6 - 186	06/18/14 09:02	06/19/14 16:59	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 14F0115-BS1

Matrix: Soil

Analysis Batch: 14F0115

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0115_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			66.7	68.1		ug/kg wet		102	44.4 - 180		
PCB-1260			66.7	77.6		ug/kg wet		116	60.3 - 169		
Surrogate		LCS %Recovery	LCS Qualifier	Limits							
TCX		81.5		46.2 - 210							
Decachlorobiphenyl		123		65.6 - 186							

Lab Sample ID: 14F0115-BSD1

Matrix: Soil

Analysis Batch: 14F0115

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 14F0115_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
PCB-1016			66.7	70.1		ug/kg wet		105	44.4 - 180	2.77	25
PCB-1260			66.7	78.7		ug/kg wet		118	60.3 - 169	1.38	25
Surrogate		LCS Dup %Recovery	LCS Dup Qualifier	Limits							
TCX		82.2		46.2 - 210							
Decachlorobiphenyl		121		65.6 - 186							

Lab Sample ID: 14F0115-MS1

Matrix: Soil

Analysis Batch: 14F0115

Client Sample ID: GEI-TP-2(12)

Prep Type: Total

Prep Batch: 14F0115_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND		65.1	150	M1	ug/kg dry	⚠	231	50.6 - 145		
PCB-1260	ND		65.1	99.7	M1	ug/kg dry	⚠	153	57.6 - 120		
Surrogate		Matrix Spike %Recovery	Matrix Spike Qualifier	Limits							
TCX		162		46.2 - 210							
Decachlorobiphenyl		145		65.6 - 186							

Lab Sample ID: 14F0115-MSD1

Matrix: Soil

Analysis Batch: 14F0115

Client Sample ID: GEI-TP-2(12)

Prep Type: Total

Prep Batch: 14F0115_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
PCB-1016	ND		69.4	126	M1	ug/kg dry	⚠	181	50.6 - 145	17.8	40
PCB-1260	ND		69.4	85.3	M1	ug/kg dry	⚠	123	57.6 - 120	15.6	27.4
Surrogate		Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits							
TCX		127		46.2 - 210							
Decachlorobiphenyl		116		65.6 - 186							

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0098-BLK1

Matrix: Soil

Analysis Batch: 14F0098

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0098_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Acenaphthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Fluorene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Phenanthrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Anthracene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Fluoranthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Pyrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Chrysene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Dibenzo (a,h) anthracene	ND		0.00600		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	89.0		36.3 - 152	06/16/14 08:14	06/16/14 10:12	1.00
2-FBP	88.0		30.2 - 135	06/16/14 08:14	06/16/14 10:12	1.00
p-Terphenyl-d14	110		65.1 - 134	06/16/14 08:14	06/16/14 10:12	1.00

Lab Sample ID: 14F0098-BS1

Matrix: Soil

Analysis Batch: 14F0098

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0098_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.133	0.145		mg/kg wet		109	62.7 - 120
Fluorene	0.133	0.146		mg/kg wet		110	67.9 - 124
Chrysene	0.133	0.153		mg/kg wet		115	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.133	0.172		mg/kg wet		129	52.6 - 149

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	81.0		36.3 - 152
2-FBP	86.0		30.2 - 135
p-Terphenyl-d14	102		65.1 - 134

Lab Sample ID: 14F0098-BSD1

Matrix: Soil

Analysis Batch: 14F0098

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 14F0098_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	0.133	0.133		mg/kg wet		100	62.7 - 120	8.15	35
Fluorene	0.133	0.134		mg/kg wet		100	67.9 - 124	8.57	35
Chrysene	0.133	0.141		mg/kg wet		106	68.2 - 132	8.14	35

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0098-BSD1

Matrix: Soil

Analysis Batch: 14F0098

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 14F0098_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Indeno (1,2,3-cd) pyrene	0.133	0.167		mg/kg wet		126	52.6 - 149	2.75	35

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
Nitrobenzene-d5	81.8		36.3 - 152
2-FBP	87.2		30.2 - 135
p-Terphenyl-d14	99.4		65.1 - 134

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

Lab Sample ID: 14F0124-BLK1

Matrix: Soil

Analysis Batch: 14F0124

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0124_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		20.0		mg/kg wet		06/19/14 08:02	06/19/14 15:13	1.00
Heavy Oil Range Hydrocarbons	ND		50.0		mg/kg wet		06/19/14 08:02	06/19/14 15:13	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92.5		50 - 150	06/19/14 08:02	06/19/14 15:13	1.00
n-Triacontane-d62	88.2		50 - 150	06/19/14 08:02	06/19/14 15:13	1.00

Lab Sample ID: 14F0124-BS1

Matrix: Soil

Analysis Batch: 14F0124

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0124_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	66.7	58.3		mg/kg wet		87.5	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	99.5		50 - 150
n-Triacontane-d62	91.2		50 - 150

Lab Sample ID: 14F0124-DUP1

Matrix: Soil

Analysis Batch: 14F0124

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14F0124_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Diesel Range Hydrocarbons	545		442	Q6	mg/kg dry	☼	20.8	40
Heavy Oil Range Hydrocarbons	2040		1680		mg/kg dry	☼	19.3	40

Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits
o-Terphenyl	107		50 - 150
n-Triacontane-d62	92.6		50 - 150

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0124-DUP2

Matrix: Soil

Analysis Batch: 14F0124

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14F0124_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Diesel Range Hydrocarbons	1330		1520	Q6	mg/kg dry	☼	13.1	40
Heavy Oil Range Hydrocarbons	5210		6080		mg/kg dry	☼	15.5	40
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
<i>o</i> -Terphenyl	90.1		50 - 150					
<i>n</i> -Triacontane-d62	95.8		50 - 150					

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Lab Sample ID: 14F0103-BLK1

Matrix: Soil

Analysis Batch: 14F0103

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0103_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		06/16/14 10:43	06/16/14 17:38	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		06/16/14 10:43	06/16/14 17:38	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		06/16/14 10:43	06/16/14 17:38	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	101		50 - 150				06/16/14 10:43	06/16/14 17:38	1.00
2-FBP	95.8		50 - 150				06/16/14 10:43	06/16/14 17:38	1.00
<i>p</i> -Terphenyl-d14	93.9		50 - 150				06/16/14 10:43	06/16/14 17:38	1.00

Lab Sample ID: 14F0103-DUP1

Matrix: Soil

Analysis Batch: 14F0103

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0103_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Gasoline Range Hydrocarbons	8.44		8.41		mg/kg dry	☼	0.378	25
Diesel Range Hydrocarbons	86.7		131	R4	mg/kg dry	☼	40.9	25
Heavy Oil Range Hydrocarbons	206		211		mg/kg dry	☼	2.70	25
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
4-BFB (FID)	92.7		50 - 150					
2-FBP	100		50 - 150					
<i>p</i> -Terphenyl-d14	92.9		50 - 150					

Lab Sample ID: 14F0103-DUP2

Matrix: Soil

Analysis Batch: 14F0103

Client Sample ID: GEI-TP-1a(9)

Prep Type: Total

Prep Batch: 14F0103_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Gasoline Range Hydrocarbons	7.11		6.65		mg/kg dry	☼	6.76	25
Diesel Range Hydrocarbons	25.4		14.7	R4	mg/kg dry	☼	53.4	25
Heavy Oil Range Hydrocarbons	170		95.8	R4	mg/kg dry	☼	56.1	25

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Lab Sample ID: 14F0103-DUP2

Matrix: Soil

Analysis Batch: 14F0103

Client Sample ID: GEI-TP-1a(9)

Prep Type: Total

Prep Batch: 14F0103_P

Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits
4-BFB (FID)	98.2		50 - 150
2-FBP	101		50 - 150
p-Terphenyl-d14	91.9		50 - 150

Lab Sample ID: 14F0147-BLK1

Matrix: Soil

Analysis Batch: 14F0147

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0147_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		06/23/14 16:14	06/23/14 17:05	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		06/23/14 16:14	06/23/14 17:05	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		06/23/14 16:14	06/23/14 17:05	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	125		50 - 150	06/23/14 16:14	06/23/14 17:05	1.00
2-FBP	102		50 - 150	06/23/14 16:14	06/23/14 17:05	1.00
p-Terphenyl-d14	99.1		50 - 150	06/23/14 16:14	06/23/14 17:05	1.00

Lab Sample ID: 14F0147-DUP1

Matrix: Soil

Analysis Batch: 14F0147

Client Sample ID: GEI-TP-1a(12)

Prep Type: Total

Prep Batch: 14F0147_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Gasoline Range Hydrocarbons	12.6		14.3		mg/kg dry	☼	12.8	25
Diesel Range Hydrocarbons	15.5		14.8		mg/kg dry	☼	4.73	25
Heavy Oil Range Hydrocarbons	106		93.7		mg/kg dry	☼	12.1	25

Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits
4-BFB (FID)	121		50 - 150
2-FBP	104		50 - 150
p-Terphenyl-d14	90.3		50 - 150

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

Lab Sample ID: 14F0138-BLK1

Matrix: Soil

Analysis Batch: 14F0138

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0138_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.25		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00
Barium	ND		0.500		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00
Cadmium	ND		0.200		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00
Chromium	ND		0.500		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00
Lead	ND		1.25		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00
Selenium	ND		2.50		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00
Silver	ND		0.500		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

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

Lab Sample ID: 14F0138-BS1

Matrix: Soil

Analysis Batch: 14F0138

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0138_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	49.6		mg/kg wet		99.2	80 - 120
Barium	50.0	50.5		mg/kg wet		101	80 - 120
Cadmium	50.0	50.0		mg/kg wet		99.9	80 - 120
Chromium	50.0	50.0		mg/kg wet		100	80 - 120
Lead	50.0	49.7		mg/kg wet		99.3	80 - 120
Selenium	500	496		mg/kg wet		99.2	80 - 120
Silver	50.0	50.1		mg/kg wet		100	80 - 120

Lab Sample ID: 14F0138-MS1

Matrix: Soil

Analysis Batch: 14F0138

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0138_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	4.74		55.5	53.8		mg/kg dry	✱	88.3	75 - 125
Barium	89.1		55.5	157		mg/kg dry	✱	122	75 - 125
Cadmium	0.524		55.5	51.5		mg/kg dry	✱	91.9	75 - 125
Chromium	12.3		55.5	63.9		mg/kg dry	✱	92.9	75 - 125
Lead	94.1		55.5	150		mg/kg dry	✱	101	75 - 125
Selenium	ND		55.5	490		mg/kg dry	✱	88.3	75 - 125
Silver	ND		55.5	42.6		mg/kg dry	✱	76.7	75 - 125

Lab Sample ID: 14F0138-MSD1

Matrix: Soil

Analysis Batch: 14F0138

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0138_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	4.74		49.8	49.8		mg/kg dry	✱	90.6	75 - 125	7.67	20
Barium	89.1		49.8	151		mg/kg dry	✱	124	75 - 125	3.85	20
Cadmium	0.524		49.8	46.9		mg/kg dry	✱	93.2	75 - 125	9.39	20
Chromium	12.3		49.8	57.2		mg/kg dry	✱	90.1	75 - 125	11.1	20
Lead	94.1		49.8	146		mg/kg dry	✱	104	75 - 125	3.09	20
Selenium	ND		49.8	443		mg/kg dry	✱	89.1	75 - 125	10.0	20
Silver	ND		49.8	39.3		mg/kg dry	✱	78.9	75 - 125	8.11	20

Lab Sample ID: 14F0138-DUP1

Matrix: Soil

Analysis Batch: 14F0138

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0138_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Arsenic	4.74		4.30		mg/kg dry	✱	9.74	20
Barium	89.1		96.4		mg/kg dry	✱	7.89	20
Cadmium	0.524		0.450		mg/kg dry	✱	15.0	20
Chromium	12.3		15.2	R3	mg/kg dry	✱	20.6	20
Lead	94.1		90.4		mg/kg dry	✱	3.94	20
Selenium	ND		ND		mg/kg dry	✱		20
Silver	ND		ND		mg/kg dry	✱		20

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Lab Sample ID: 14F0148-BLK1

Matrix: Soil

Analysis Batch: 14F0148

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14F0148_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		50.0		ug/kg wet		06/24/14 09:00	06/24/14 15:54	1.00

Lab Sample ID: 14F0148-BS1

Matrix: Soil

Analysis Batch: 14F0148

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14F0148_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	200	208		ug/kg wet		104	80 - 120

Lab Sample ID: 14F0148-MS1

Matrix: Soil

Analysis Batch: 14F0148

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0148_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	72.1		215	295		ug/kg dry	☼	104	80 - 120

Lab Sample ID: 14F0148-MSD1

Matrix: Soil

Analysis Batch: 14F0148

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0148_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	72.1		176	213	R	ug/kg dry	☼	80.0	80 - 120	32.4	20

Lab Sample ID: 14F0148-DUP1

Matrix: Soil

Analysis Batch: 14F0148

Client Sample ID: GEI-TP-1(9.5)

Prep Type: Total

Prep Batch: 14F0148_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Mercury	72.1		55.7		ug/kg dry	☼	25.6	40

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-1(9.5)

Date Collected: 06/11/14 10:00

Date Received: 06/13/14 13:40

Lab Sample ID: SXF0093-04

Matrix: Soil

Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.903	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 15:26	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.903	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 15:26	CBW	TAL SPK
Total	Prep	EPA 3580		0.970	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 15:09	NMI	TAL SPK
Total	Prep	EPA 3550B		1.66	14F0115_P	06/18/14 09:02	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14F0115	06/19/14 17:47	NMI	TAL SPK
Total	Prep	EPA 3550B		1.77	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		20.0	14F0098	06/16/14 19:35	MRS	TAL SPK
Total	Prep	EPA 3550B		2.95	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 14:14	MS	TAL SPK
Total	Prep	EPA 3580		0.86	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 18:02	MS	TAL SPK
Total	Prep	EPA 3050B		1.00	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 12:24	ICP	TAL SPK
Total	Prep	EPA 7471		0.980	14F0148_P	06/24/14 09:00	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14F0148	06/24/14 15:57	ZZZ	TAL SPK
Total	Prep	Wet Chem		1.00	14F0105_P	06/16/14 15:55	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14F0105	06/17/14 10:16	NI	TAL SPK

Client Sample ID: GEI-TP-1a(9)

Date Collected: 06/11/14 10:40

Date Received: 06/13/14 13:40

Lab Sample ID: SXF0093-05

Matrix: Soil

Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.831	14F0150_P	06/24/14 09:06	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0150	06/24/14 11:24	CBW	TAL SPK
Total	Prep	EPA 3580		0.83	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 18:50	MS	TAL SPK
Total	Prep	EPA 3050B		1.00	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 12:43	ICP	TAL SPK
Total	Prep	EPA 7471		0.962	14F0148_P	06/24/14 09:00	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14F0148	06/24/14 16:06	ZZZ	TAL SPK

Client Sample ID: GEI-TP-1a(12)

Date Collected: 06/11/14 10:50

Date Received: 06/13/14 13:40

Lab Sample ID: SXF0093-06

Matrix: Soil

Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.877	14F0150_P	06/24/14 09:06	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0150	06/24/14 11:46	CBW	TAL SPK
Total	Prep	EPA 3580		0.87	14F0147_P	06/23/14 16:14	MS	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-1a(12)

Lab Sample ID: SXF0093-06

Date Collected: 06/11/14 10:50

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-HCID		1.0	14F0147	06/23/14 17:30	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14F0173_P	06/26/14 09:00	MS	TAL SPK
Total	Analysis	TA SOP		1.00	14F0173	06/26/14 16:21	MS	TAL SPK

Client Sample ID: GEI-TP-2(12)

Lab Sample ID: SXF0093-10

Date Collected: 06/11/14 12:10

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.992	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 15:48	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.992	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 15:48	CBW	TAL SPK
Total	Prep	EPA 3580		0.750	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 16:19	NMI	TAL SPK
Total	Prep	EPA 3550B		1.79	14F0115_P	06/18/14 09:02	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14F0115	06/19/14 18:03	NMI	TAL SPK
Total	Prep	EPA 3550B		1.88	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/17/14 14:02	MRS	TAL SPK
Total	Prep	EPA 3550B		0.774	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 14:37	MS	TAL SPK
Total	Prep	EPA 3580		0.75	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 19:38	MS	TAL SPK
Total	Prep	EPA 3050B		0.943	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 12:47	ICP	TAL SPK
Total	Prep	EPA 7471		0.893	14F0148_P	06/24/14 09:00	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14F0148	06/24/14 16:08	ZZZ	TAL SPK

Client Sample ID: GEI-TP-3(9)

Lab Sample ID: SXF0093-13

Date Collected: 06/11/14 14:35

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3580		0.88	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 20:02	MS	TAL SPK
Total	Prep	EPA 3050B		0.962	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 12:51	ICP	TAL SPK
Total	Prep	EPA 7471		0.847	14F0148_P	06/24/14 09:00	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14F0148	06/24/14 16:10	ZZZ	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Client Sample ID: GEI-TP-4(12)

Lab Sample ID: SXF0093-18

Date Collected: 06/11/14 17:00

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3550B		1.73	14F0115_P	06/18/14 09:02	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14F0115	06/19/14 18:50	NMI	TAL SPK
Total	Prep	EPA 3580		0.83	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 20:27	MS	TAL SPK
Total	Prep	EPA 3050B		1.00	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 13:09	ICP	TAL SPK
Total	Prep	EPA 7471		1.00	14F0148_P	06/24/14 09:00	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14F0148	06/24/14 16:13	ZZZ	TAL SPK

Laboratory References:

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Laboratory: TestAmerica Spokane

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

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

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXF0093

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8082A	Polychlorinated Biphenyls by EPA Method 8082		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-HCID	Hydrocarbon Identification by NWTPH-HCID		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
EPA 7471B	Total Metals by EPA 6010/7000 Series Methods		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9403 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order # **SP0093**

CLIENT: GeoEngineers		INVOICE TO:		TURNAROUND REQUEST in Business Days* Organic & Inorganic Analyses ☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☒ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. ☐ OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.													
REPORT TO: SLATHEN@geoengineers.com		P.O. NUMBER:															
ADDRESS: 523 E Second Ave Spokane, WA 99202		PRESERVATIVE															
PHONE: 509-363-3125 FAX: 509-363-3126		REQUESTED ANALYSES															
PROJECT NAME: Trolley Barn																	
PROJECT NUMBER: 0504-101-01																	
SAMPLED BY: JML																	
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	HLID	ANALYST	ANALYST	ANALYST	ANALYST	ANALYST	ANALYST	ANALYST	ANALYST	ANALYST	ANALYST	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID	
1. GEI-TP-1(3)	6/11/2014 0935												S	3			
2. TP-1(6)	0945																
3. TP-1(9)	0955																
4. TP-1(9.5)	1000	X	X	X	X	X	X	X	X	X	X	X					
5. TP-1a(9)	1040	X		X		X	X	X	X	X	X	X			5-day TAT on HCLD		
6. TP-1a(12)	1050	X		X		X	X	X	X	X	X	X					
7. TP-2(3)	1140																
8. TP-2(6)	1155																
9. TP-2(9)	1205																
10. TP-2(12)	1210	X	X	X	X	X	X	X	X	X	X	X					
RELEASED BY: Josh Lee		FIRM: Geo		DATE: 6/13/2014		RECEIVED BY: At. [Signature]		FIRM: TestAmerica		DATE: 6/13/14							
PRINT NAME: Josh Lee				TIME: 1340		PRINT NAME: At. [Signature]				TIME: 1540							
RELEASED BY:		FIRM:		DATE:		RECEIVED BY:		FIRM:		DATE:							
PRINT NAME:				TIME:		PRINT NAME:				TIME:							
ADDITIONAL REMARKS:																	

Add BTEX to TP-1A(9)+(12)
add HCLD to ~~TP-1A(12)~~

Rec'd 6/23/14
[Signature]

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
 11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
 509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-553-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: **SKP0093**

CLIENT: Geo Engineers		INVOICE TO:	
REPORT TO: SLathon@geoengineers.com			
ADDRESS: 523 E Second Ave Spokane, WA 99202		P.O. NUMBER:	
PHONE: 509-363-3125 FAX: 509-363-3126			
PROJECT NAME: Trolley Barn		PRESERVATIVE	
PROJECT NUMBER: 0504-101-01			
SAMPLED BY: JML		REQUESTED ANALYSES	
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	HLID	NUMPH-GX
1. GEI-TP-3(3)	6/11/2014 1410		
2. TP-3(6)	1420		
3. TP-3(9)	1435	X	X
4. TP-3(12)	1500		
5. TP-4(3)	1630		
6. TP-4(6)	1640		
7. TP-4(9)	1650		
8. TP-4(12)	1700	X	X
9. TP-4(14)	1710		
10. TP-2(B)	12:10		
RELEASED BY: Josh Lee FIRM: Geo		DATE: 6/13/2014	
PRINT NAME: Josh Lee		TIME: 1340	
RELEASED BY:		RECEIVED BY: Ok Hamilton	
PRINT NAME:		PRINT NAME:	
FIRM:		FIRM: TestAmerica	
ADDITIONAL REMARKS:		DATE: 6-13-14	
		TIME: 1340	
		DATE:	
		TIME:	
		TEMP: 4.9	
		PAGE 2 OF 2	

TURNAROUND REQUEST

in Business Days *

Organic & Inorganic Analyses

☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1

Petroleum Hydrocarbon Analyses

☒ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

MATRIX (W, S, O)	# OF CONT	LOCATION/ COMMENTS	TA WO ID
------------------	-----------	--------------------	----------

S

3

5-day TAT on HCLD

5-day TAT on HCLD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

6/27/2014

CHAIN OF CUSTODY REPORT

Work Order # **SXF0093**

CLIENT: GeoEngineers				INVOICE TO:												TURNAROUND REQUEST in Business Days* Organic & Inorganic Analyses ☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☒ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD.			
REPORT TO: SLATHER@geoengineers.com				P.O. NUMBER:															
ADDRESS: 523 E Second Ave Spokane, WA 99202																			
PHONE: 509-363-3125 FAX: 509-363-3126																			
PROJECT NAME: Trolley Barn				PRESERVATIVE															
PROJECT NUMBER: 0564-101-01				REQUESTED ANALYSES															
SAMPLED BY: JML																			
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		HLID	AMPH-GA	AMPH-DX	PCBs	BTEX	EDB	EDL	MTBE	Naphthalenes	PAHs	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID		
1	GEI-TP-1(3)	6/11/2014	0935											S	3				
2	TP-1(6)		0945																
3	TP-1(9)		0955																
4	TP-1(9.5)		1000	X	X	X	X	X	X	X	X	X	X						
5	TP-1a(9)		1040	X		X	X	X	X	X	X	X	X			5-day TAT on HCLD			
6	TP-1a(12)		1050																
7	TP-2(3)		1140																
8	TP-2(6)		1155																
9	TP-2(9)		1205																
10	TP-2(12)		1210	X	X	X	X	X	X	X	X	X	X						
RELEASED BY: [Signature]				DATE: 6/13/2014				RECEIVED BY: [Signature]				DATE: 6/13/2014							
PRINT NAME: Josh Lee				FIRM: Geo				PRINT NAME: Col Stapleton				FIRM: TestAmerica							
RELEASED BY:				DATE:				RECEIVED BY:				DATE:							
PRINT NAME:				FIRM:				PRINT NAME:				FIRM:							
ADDITIONAL REMARKS:																			
														TEMP: 49	PAGE 1 OF 2				

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

6/27/2014

CHAIN OF CUSTODY REPORT

Work Order #: **SXF0093**

CLIENT: GeoEngineers			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☒ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. ☐ OTHER Specify: * Turnaround Requests less than standard may incur Rush Charges.											
REPORT TO: SLather @ geoengineers.com			P.O. NUMBER:														
ADDRESS: 523 E Second Ave Spokane, WA 99202																	
PHONE: 509-363-3125 FAX: 509-363-3126																	
PROJECT NAME: Trolley Barn			PRESERVATIVE														
PROJECT NUMBER: 0504-101-01																	
SAMPLED BY: JML			REQUESTED ANALYSES														
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		HCLD	WUPH-GK	WUPH-DK	VOLs	PCBs	BTEX	EDB	EDL	MTBE	Naphthalene	CPAHs	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 GEI-TP-3(3)	6/11/2014 1410													S	3		
2 TP-3(6)	1420																
3 TP-3(9)	1435	X				X	X									5-day TAT on HCLD	
4 TP-3(12)	1500																
5 TP-4(3)	1630																
6 TP-4(6)	1640																
7 TP-4(9)	1650																
8 TP-4(12)	1700	X				X	X									5-day TAT on HCLD	
9 TP-4(14)	1710																
10 TP-2(B)	12:20																
RELEASED BY: Josh Lee			DATE: 6/13/2014			RECEIVED BY: Col Hamilton			DATE: 6-13-14								
PRINT NAME: Josh Lee			FIRM: Geo			PRINT NAME: Col Hamilton			FIRM: TestAmerica			TIME: 1340					
RELEASED BY:			DATE:			RECEIVED BY:			DATE:								
PRINT NAME:			FIRM:			PRINT NAME:			FIRM:			TIME:					
ADDITIONAL REMARKS:																	
															TEMP: 4.9	PAGE 2 OF 2	

TAL-1000 (0612)

Page 31 of 32

**TestAmerica Spokane
Sample Receipt Form**

Work Order # SXFO093	Client: GeoEngineers	Project: Trolley Barn		
Date/Time Received: 6-13-14 13:40				
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: 4.9 °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	Yes	No	NA	Comments
Date/Time: 6-13-14 14:37 By: CS				
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

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: SXH0089

Client Project/Site: 0504-101-01

Client Project Description: Trolley Barn

For:

Geo Engineers - Spokane

523 East Second Ave.

Spokane, WA 99202

Attn: Scott Lathen



Authorized for release by:

2/17/2015 7:35:35 AM

Chris Williams, Lab Director

Chris.Williams@testamericainc.com

Designee for

Randee Arrington, Project Manager

(509)924-9200

Randee.Arrington@testamericainc.com

LINKS

Review your project
results through

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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.

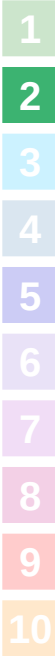


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Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXH0089-02	GEI-MW-1 (12.5-13.5')	Soil	08/12/14 14:45	08/14/14 10:00
SXH0089-04	GEI-MW-2 (12-13')	Soil	08/13/14 11:10	08/14/14 10:00
SXH0089-06	GEI-MW-3 (12-13')	Soil	08/12/14 08:30	08/14/14 10:00
SXH0089-07	GEI-B1 (2-3')	Soil	08/11/14 15:10	08/14/14 10:00
SXH0089-08	GEI-B1 (12-13')	Soil	08/11/14 15:40	08/14/14 10:00
SXH0089-10	GEI-B2 (13-14')	Soil	08/11/14 12:20	08/14/14 10:00
SXH0089-12	GEI-B3 (7-8')	Soil	08/11/14 10:55	08/14/14 10:00
SXH0089-13	GEI-B4 (2-3')	Soil	08/11/14 16:20	08/14/14 10:00
SXH0089-14	GEI-B4 (7-8')	Soil	08/11/14 16:10	08/14/14 10:00
SXH0089-15	GEI-B5 (2-3')	Soil	08/11/14 10:00	08/14/14 10:00
SXH0089-16	GEI-B5 (7-8')	Soil	08/11/14 10:10	08/14/14 10:00
SXH0089-17	GEI-B6 (2-3')	Soil	08/11/14 14:05	08/14/14 10:00
SXH0089-19	GEI-B6 (13-14')	Soil	08/11/14 14:25	08/14/14 10:00
SXH0089-21	GEI-B7 (13-14')	Soil	08/11/14 08:45	08/14/14 10:00
SXH0089-23	GEI-B8 (14-15')	Soil	08/11/14 12:15	08/14/14 10:00
SXH0089-25	GEI-B9 (13-14')	Soil	08/11/14 14:10	08/14/14 10:00
SXH0089-26	Duplicate 1	Soil	08/11/14 08:00	08/14/14 10:00
SXH0089-27	Duplicate 2	Soil	08/11/14 08:00	08/14/14 10:00
SXH0089-28	HWA-MW1-Composite	Soil	08/12/14 14:45	08/14/14 10:00

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
R2	The RPD exceeded the acceptance limit.
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
RL1	Reporting limit raised due to sample matrix effects.

Fuels

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
Q6	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

Metals

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
R	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
RL3	Reporting limit raised due to high concentrations of non-target analytes.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-1 (12.5-13.5')

Lab Sample ID: SXH0089-02

Date Collected: 08/12/14 14:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0627		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
Hexane	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
Benzene	ND		0.0188		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
1,2-Dichloroethane (EDC)	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
Trichloroethene	ND		0.0313		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
Toluene	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
Tetrachloroethene	ND		0.0501		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
Ethylbenzene	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
m,p-Xylene	ND		0.501		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00
o-Xylene	ND		0.251		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:14	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.5		80 - 120	08/15/14 08:49	08/15/14 11:14	1.00
1,2-dichloroethane-d4	97.7		74.7 - 120	08/15/14 08:49	08/15/14 11:14	1.00
Toluene-d8	103		78.5 - 125	08/15/14 08:49	08/15/14 11:14	1.00
4-bromofluorobenzene	100		69.8 - 140	08/15/14 08:49	08/15/14 11:14	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.842		ug/kg dry	☼	08/15/14 10:04	08/15/14 13:26	1.00
1,2-Dibromo-3-chloropropane	ND		0.842		ug/kg dry	☼	08/15/14 10:04	08/15/14 13:26	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1221	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1232	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1242	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1248	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1254	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1260	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00
PCB-1268	ND		8.68		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:17	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	104		46.2 - 210	08/19/14 08:36	08/19/14 16:17	1.00
Decachlorobiphenyl	118		65.6 - 186	08/19/14 08:36	08/19/14 16:17	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
2-Methylnaphthalene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
1-Methylnaphthalene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Acenaphthylene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Acenaphthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Fluorene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Phenanthrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Anthracene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Fluoranthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Pyrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Benzo (a) anthracene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-1 (12.5-13.5')

Lab Sample ID: SXH0089-02

Date Collected: 08/12/14 14:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Benzo (b) fluoranthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Benzo (k) fluoranthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Benzo (a) pyrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Dibenzo (a,h) anthracene	ND		0.0117		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00
Benzo (ghi) perylene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 17:58	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	84.4		36.3 - 152	08/21/14 08:39	08/21/14 17:58	1.00
2-FBP	89.2		30.2 - 135	08/21/14 08:39	08/21/14 17:58	1.00
p-Terphenyl-d14	117		65.1 - 134	08/21/14 08:39	08/21/14 17:58	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		41		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:07	1.0
Diesel Range Hydrocarbons	ND		100		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:07	1.0
Heavy Oil Range Hydrocarbons	ND		100		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:07	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	92.3		50 - 150	08/15/14 11:27	08/15/14 21:07	1.0
2-FBP	93.4		50 - 150	08/15/14 11:27	08/15/14 21:07	1.0
p-Terphenyl-d14	104		50 - 150	08/15/14 11:27	08/15/14 21:07	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.43		2.53		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:37	2.00
Cadmium	ND	RL3	0.404		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:37	2.00
Chromium	17.1		1.01		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:37	2.00
Lead	4.16		2.53		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:37	2.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		47.2		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:15	1.00

Client Sample ID: GEI-MW-2 (12-13')

Lab Sample ID: SXH0089-04

Date Collected: 08/13/14 11:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0528		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
Hexane	ND		0.106		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
Benzene	ND		0.0158		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
1,2-Dichloroethane (EDC)	ND		0.106		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
Trichloroethene	ND		0.0264		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
Toluene	ND		0.106		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
Tetrachloroethene	ND		0.0422		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
Ethylbenzene	ND		0.106		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
m,p-Xylene	ND		0.422		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00
o-Xylene	ND		0.211		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:37	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-2 (12-13')

Lab Sample ID: SXH0089-04

Date Collected: 08/13/14 11:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	102		80 - 120	08/15/14 08:49	08/15/14 11:37	1.00
1,2-dichloroethane-d4	99.3		74.7 - 120	08/15/14 08:49	08/15/14 11:37	1.00
Toluene-d8	102		78.5 - 125	08/15/14 08:49	08/15/14 11:37	1.00
4-bromofluorobenzene	102		69.8 - 140	08/15/14 08:49	08/15/14 11:37	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.934		ug/kg dry	☼	08/15/14 10:04	08/15/14 13:41	1.00
1,2-Dibromo-3-chloropropane	ND		0.934		ug/kg dry	☼	08/15/14 10:04	08/15/14 13:41	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1221	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1232	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1242	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1248	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1254	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1260	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00
PCB-1268	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 16:38	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	104		46.2 - 210	08/19/14 08:36	08/19/14 16:38	1.00
Decachlorobiphenyl	117		65.6 - 186	08/19/14 08:36	08/19/14 16:38	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
2-Methylnaphthalene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
1-Methylnaphthalene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Acenaphthylene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Acenaphthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Fluorene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Phenanthrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Anthracene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Fluoranthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Pyrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Benzo (a) anthracene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Chrysene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Benzo (b) fluoranthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Benzo (k) fluoranthene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Benzo (a) pyrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Dibenzo (a,h) anthracene	ND		0.0117		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00
Benzo (ghi) perylene	ND		0.0195		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:20	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	83.4		36.3 - 152	08/21/14 08:39	08/21/14 18:20	1.00
2-FBP	82.2		30.2 - 135	08/21/14 08:39	08/21/14 18:20	1.00
p-Terphenyl-d14	111		65.1 - 134	08/21/14 08:39	08/21/14 18:20	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-2 (12-13')

Lab Sample ID: SXH0089-04

Date Collected: 08/13/14 11:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94.6

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		34		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:31	1.0
Diesel Range Hydrocarbons	ND		85		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:31	1.0
Heavy Oil Range Hydrocarbons	ND		85		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:31	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	88.7		50 - 150				08/15/14 11:27	08/15/14 21:31	1.0
2-FBP	90.2		50 - 150				08/15/14 11:27	08/15/14 21:31	1.0
p-Terphenyl-d14	100		50 - 150				08/15/14 11:27	08/15/14 21:31	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.23		1.39		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:29	1.00
Cadmium	ND		0.223		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:29	1.00
Chromium	11.5		0.556		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:29	1.00
Lead	2.96		1.39		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:29	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		43.1		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:24	1.00

Client Sample ID: GEI-MW-3 (12-13')

Lab Sample ID: SXH0089-06

Date Collected: 08/12/14 08:30

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0641		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Hexane	ND		0.128		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Benzene	ND		0.0192		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
1,2-Dichloroethane (EDC)	ND		0.128		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Trichloroethene	ND		0.0320		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Toluene	ND		0.128		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Tetrachloroethene	ND		0.0513		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Ethylbenzene	ND		0.128		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
m,p-Xylene	ND		0.513		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
o-Xylene	ND		0.256		mg/kg dry	☼	08/15/14 08:49	08/15/14 11:59	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.1		80 - 120				08/15/14 08:49	08/15/14 11:59	1.00
1,2-dichloroethane-d4	99.4		74.7 - 120				08/15/14 08:49	08/15/14 11:59	1.00
Toluene-d8	103		78.5 - 125				08/15/14 08:49	08/15/14 11:59	1.00
4-bromofluorobenzene	99.5		69.8 - 140				08/15/14 08:49	08/15/14 11:59	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.867		ug/kg dry	☼	08/15/14 10:04	08/15/14 13:55	1.00
1,2-Dibromo-3-chloropropane	ND		0.867		ug/kg dry	☼	08/15/14 10:04	08/15/14 13:55	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-3 (12-13')

Lab Sample ID: SXH0089-06

Date Collected: 08/12/14 08:30

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00
PCB-1232	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00
PCB-1242	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00
PCB-1248	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00
PCB-1254	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00
PCB-1260	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00
PCB-1268	ND		9.57		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:00	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	110		46.2 - 210	08/19/14 08:36	08/19/14 17:00	1.00
Decachlorobiphenyl	118		65.6 - 186	08/19/14 08:36	08/19/14 17:00	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
2-Methylnaphthalene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
1-Methylnaphthalene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Acenaphthylene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Acenaphthene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Fluorene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Phenanthrene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Anthracene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Fluoranthene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Pyrene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Benzo (a) anthracene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Chrysene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Benzo (b) fluoranthene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Benzo (k) fluoranthene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Benzo (a) pyrene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Dibenzo (a,h) anthracene	ND		0.0118		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00
Benzo (ghi) perylene	ND		0.0196		mg/kg dry	☼	08/21/14 08:39	08/21/14 18:43	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80.2		36.3 - 152	08/21/14 08:39	08/21/14 18:43	1.00
2-FBP	78.6		30.2 - 135	08/21/14 08:39	08/21/14 18:43	1.00
p-Terphenyl-d14	100		65.1 - 134	08/21/14 08:39	08/21/14 18:43	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		37		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:55	1.0
Diesel Range Hydrocarbons	ND		92		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:55	1.0
Heavy Oil Range Hydrocarbons	ND		92		mg/kg dry	☼	08/15/14 11:27	08/15/14 21:55	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	90.3		50 - 150	08/15/14 11:27	08/15/14 21:55	1.0
2-FBP	91.8		50 - 150	08/15/14 11:27	08/15/14 21:55	1.0
p-Terphenyl-d14	99.2		50 - 150	08/15/14 11:27	08/15/14 21:55	1.0

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-3 (12-13')

Lab Sample ID: SXH0089-06

Date Collected: 08/12/14 08:30

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.65		1.34		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:33	1.00
Cadmium	ND		0.215		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:33	1.00
Chromium	11.3		0.536		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:33	1.00
Lead	4.51		1.34		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:33	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		37.9		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:26	1.00

Client Sample ID: GEI-B1 (2-3')

Lab Sample ID: SXH0089-07

Date Collected: 08/11/14 15:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 84.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0866		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
Hexane	ND		0.173		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
Benzene	ND		0.0260		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
1,2-Dichloroethane (EDC)	ND		0.173		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
Trichloroethene	ND		0.0433		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
Toluene	ND		0.173		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
Tetrachloroethene	ND		0.0693		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
Ethylbenzene	ND		0.173		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
m,p-Xylene	ND		0.693		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00
o-Xylene	ND		0.346		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:22	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	95.5		80 - 120	08/15/14 08:49	08/15/14 12:22	1.00
1,2-dichloroethane-d4	94.3		74.7 - 120	08/15/14 08:49	08/15/14 12:22	1.00
Toluene-d8	105		78.5 - 125	08/15/14 08:49	08/15/14 12:22	1.00
4-bromofluorobenzene	101		69.8 - 140	08/15/14 08:49	08/15/14 12:22	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		5.86		ug/kg dry	☼	08/15/14 10:04	08/15/14 14:09	5.00
1,2-Dibromo-3-chloropropane	ND		5.86		ug/kg dry	☼	08/15/14 10:04	08/15/14 14:09	5.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1221	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1232	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1242	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1248	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1254	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1260	188		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0
PCB-1268	ND		110		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:49	10.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	91.2		46.2 - 210	08/19/14 08:36	08/20/14 11:49	10.0
Decachlorobiphenyl	78.4		65.6 - 186	08/19/14 08:36	08/20/14 11:49	10.0

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B1 (2-3')

Lab Sample ID: SXH0089-07

Date Collected: 08/11/14 15:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 84.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
2-Methylnaphthalene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
1-Methylnaphthalene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Acenaphthylene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Acenaphthene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Fluorene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Phenanthrene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Anthracene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Fluoranthene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Pyrene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Benzo (a) anthracene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Chrysene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Benzo (b) fluoranthene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Benzo (k) fluoranthene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Benzo (a) pyrene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Indeno (1,2,3-cd) pyrene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Dibenzo (a,h) anthracene	ND	RL1	0.873		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0
Benzo (ghi) perylene	ND	RL1	1.46		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:05	20.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68.0	RL1	36.3 - 152	08/21/14 08:39	08/21/14 19:05	20.0
2-FBP	72.0	RL1	30.2 - 135	08/21/14 08:39	08/21/14 19:05	20.0
p-Terphenyl-d14	88.0	RL1	65.1 - 134	08/21/14 08:39	08/21/14 19:05	20.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	3950	Q6	391		mg/kg dry	☼	08/25/14 13:21	08/26/14 09:29	20.0
Heavy Oil Range Hydrocarbons	15000		979		mg/kg dry	☼	08/25/14 13:21	08/26/14 09:29	20.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	103		50 - 150	08/25/14 13:21	08/26/14 09:29	20.0
n-Triacontane-d62	126		50 - 150	08/25/14 13:21	08/26/14 09:29	20.0

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		120		mg/kg dry	☼	08/15/14 11:27	08/15/14 22:19	1.0
Diesel Range Hydrocarbons	3100	Q6	290		mg/kg dry	☼	08/15/14 11:27	08/15/14 22:19	1.0
Heavy Oil Range Hydrocarbons	15000		290		mg/kg dry	☼	08/15/14 11:27	08/15/14 22:19	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	100		50 - 150	08/15/14 11:27	08/15/14 22:19	1.0
2-FBP	106		50 - 150	08/15/14 11:27	08/15/14 22:19	1.0
p-Terphenyl-d14	102		50 - 150	08/15/14 11:27	08/15/14 22:19	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.66		1.57		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:37	1.00
Cadmium	2.60		0.252		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:37	1.00
Chromium	20.2		0.629		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:37	1.00
Lead	806		1.57		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:37	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B1 (2-3')

Date Collected: 08/11/14 15:10

Date Received: 08/14/14 10:00

Lab Sample ID: SXH0089-07

Matrix: Soil

Percent Solids: 84.5

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	512		47.2		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:29	1.00

Client Sample ID: GEI-B1 (12-13')

Date Collected: 08/11/14 15:40

Date Received: 08/14/14 10:00

Lab Sample ID: SXH0089-08

Matrix: Soil

Percent Solids: 92.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.7		mg/kg dry	☼	08/25/14 13:21	08/25/14 18:41	1.00
Heavy Oil Range Hydrocarbons	ND		26.8		mg/kg dry	☼	08/25/14 13:21	08/25/14 18:41	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	112		50 - 150				08/25/14 13:21	08/25/14 18:41	1.00
<i>n</i> -Triacontane-d62	114		50 - 150				08/25/14 13:21	08/25/14 18:41	1.00

Client Sample ID: GEI-B2 (13-14')

Date Collected: 08/11/14 12:20

Date Received: 08/14/14 10:00

Lab Sample ID: SXH0089-10

Matrix: Soil

Percent Solids: 93.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0522		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Hexane	ND		0.104		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Benzene	ND		0.0156		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
1,2-Dichloroethane (EDC)	ND		0.104		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Trichloroethene	ND		0.0261		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Toluene	ND		0.104		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Tetrachloroethene	ND		0.0417		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Ethylbenzene	ND		0.104		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
m,p-Xylene	ND		0.417		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
o-Xylene	ND		0.209		mg/kg dry	☼	08/15/14 08:49	08/15/14 12:44	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Dibromofluoromethane</i>	101		80 - 120				08/15/14 08:49	08/15/14 12:44	1.00
<i>1,2-dichloroethane-d4</i>	99.0		74.7 - 120				08/15/14 08:49	08/15/14 12:44	1.00
<i>Toluene-d8</i>	102		78.5 - 125				08/15/14 08:49	08/15/14 12:44	1.00
<i>4-bromofluorobenzene</i>	100		69.8 - 140				08/15/14 08:49	08/15/14 12:44	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.945		ug/kg dry	☼	08/15/14 10:04	08/15/14 14:24	1.00
1,2-Dibromo-3-chloropropane	ND		0.945		ug/kg dry	☼	08/15/14 10:04	08/15/14 14:24	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
PCB-1221	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
PCB-1232	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
PCB-1242	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
PCB-1248	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
PCB-1254	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B2 (13-14')

Lab Sample ID: SXH0089-10

Date Collected: 08/11/14 12:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
PCB-1268	ND		9.67		ug/kg dry	☼	08/19/14 08:36	08/19/14 17:42	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	102		46.2 - 210				08/19/14 08:36	08/19/14 17:42	1.00
Decachlorobiphenyl	106		65.6 - 186				08/19/14 08:36	08/19/14 17:42	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
2-Methylnaphthalene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
1-Methylnaphthalene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Acenaphthylene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Acenaphthene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Fluorene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Phenanthrene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Anthracene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Fluoranthene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Pyrene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Benzo (a) anthracene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Chrysene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Benzo (b) fluoranthene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Benzo (k) fluoranthene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Benzo (a) pyrene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Dibenzo (a,h) anthracene	ND		0.0121		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Benzo (ghi) perylene	ND		0.0202		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:28	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	87.6		36.3 - 152				08/21/14 08:39	08/21/14 19:28	1.00
2-FBP	82.6		30.2 - 135				08/21/14 08:39	08/21/14 19:28	1.00
p-Terphenyl-d14	105		65.1 - 134				08/21/14 08:39	08/21/14 19:28	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		41		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:08	1.0
Diesel Range Hydrocarbons	ND		100		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:08	1.0
Heavy Oil Range Hydrocarbons	ND		100		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:08	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	88.5		50 - 150				08/15/14 11:27	08/15/14 23:08	1.0
2-FBP	96.2		50 - 150				08/15/14 11:27	08/15/14 23:08	1.0
p-Terphenyl-d14	106		50 - 150				08/15/14 11:27	08/15/14 23:08	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.06		1.28		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:41	1.00
Cadmium	ND		0.204		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:41	1.00
Chromium	14.9		0.511		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:41	1.00
Lead	4.72		1.28		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:41	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B2 (13-14')

Lab Sample ID: SXH0089-10

Date Collected: 08/11/14 12:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		37.3		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:31	1.00

Client Sample ID: GEI-B3 (7-8')

Lab Sample ID: SXH0089-12

Date Collected: 08/11/14 10:55

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0586		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
Hexane	ND		0.117		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
Benzene	ND		0.0176		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
1,2-Dichloroethane (EDC)	ND		0.117		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
Trichloroethene	ND		0.0293		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
Toluene	ND		0.117		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
Tetrachloroethene	ND		0.0469		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
Ethylbenzene	ND		0.117		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
m,p-Xylene	ND		0.469		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00
o-Xylene	ND		0.234		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:06	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101		80 - 120	08/15/14 08:49	08/15/14 13:06	1.00
1,2-dichloroethane-d4	99.9		74.7 - 120	08/15/14 08:49	08/15/14 13:06	1.00
Toluene-d8	103		78.5 - 125	08/15/14 08:49	08/15/14 13:06	1.00
4-bromofluorobenzene	101		69.8 - 140	08/15/14 08:49	08/15/14 13:06	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.853		ug/kg dry	☼	08/15/14 10:04	08/15/14 14:38	1.00
1,2-Dibromo-3-chloropropane	ND		0.853		ug/kg dry	☼	08/15/14 10:04	08/15/14 14:38	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1221	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1232	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1242	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1248	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1254	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1260	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00
PCB-1268	ND		10.4		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:03	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	110		46.2 - 210	08/19/14 08:36	08/19/14 18:03	1.00
Decachlorobiphenyl	117		65.6 - 186	08/19/14 08:36	08/19/14 18:03	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
2-Methylnaphthalene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
1-Methylnaphthalene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Acenaphthylene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B3 (7-8')

Lab Sample ID: SXH0089-12

Date Collected: 08/11/14 10:55

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Fluorene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Phenanthrene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Anthracene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Fluoranthene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Pyrene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Benzo (a) anthracene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Chrysene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Benzo (b) fluoranthene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Benzo (k) fluoranthene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Benzo (a) pyrene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Dibenzo (a,h) anthracene	ND		0.0111		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00
Benzo (ghi) perylene	ND		0.0184		mg/kg dry	☼	08/21/14 08:39	08/21/14 19:50	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81.2		36.3 - 152	08/21/14 08:39	08/21/14 19:50	1.00
2-FBP	79.2		30.2 - 135	08/21/14 08:39	08/21/14 19:50	1.00
p-Terphenyl-d14	102		65.1 - 134	08/21/14 08:39	08/21/14 19:50	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		38		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:32	1.0
Diesel Range Hydrocarbons	ND		95		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:32	1.0
Heavy Oil Range Hydrocarbons	ND		95		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:32	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	89.5		50 - 150	08/15/14 11:27	08/15/14 23:32	1.0
2-FBP	96.5		50 - 150	08/15/14 11:27	08/15/14 23:32	1.0
p-Terphenyl-d14	108		50 - 150	08/15/14 11:27	08/15/14 23:32	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.66		1.23		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:45	1.00
Cadmium	ND		0.197		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:45	1.00
Chromium	14.8		0.492		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:45	1.00
Lead	3.04		1.23		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:45	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		42.4		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:38	1.00

Client Sample ID: GEI-B4 (2-3')

Lab Sample ID: SXH0089-13

Date Collected: 08/11/14 16:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 92.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.3		2.64		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00
Barium	277		1.06		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00
Cadmium	6.78		0.423		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B4 (2-3')

Lab Sample ID: SXH0089-13

Date Collected: 08/11/14 16:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 92.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	18.4		1.06		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00
Lead	865		2.64		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00
Selenium	ND		5.29		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00
Silver	ND	RL3	1.06		mg/kg dry	☼	08/27/14 13:45	08/28/14 08:12	2.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	203		37.9		ug/kg dry	☼	08/28/14 07:09	08/28/14 14:29	1.00

Client Sample ID: GEI-B4 (7-8')

Lab Sample ID: SXH0089-14

Date Collected: 08/11/14 16:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 97.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0610		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
Hexane	ND		0.122		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
Benzene	ND		0.0183		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
1,2-Dichloroethane (EDC)	ND		0.122		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
Trichloroethene	ND		0.0305		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
Toluene	ND		0.122		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
Tetrachloroethene	ND		0.0488		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
Ethylbenzene	ND		0.122		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
m,p-Xylene	ND		0.488		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00
o-Xylene	ND		0.244		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:29	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101		80 - 120	08/15/14 08:49	08/15/14 13:29	1.00
1,2-dichloroethane-d4	99.5		74.7 - 120	08/15/14 08:49	08/15/14 13:29	1.00
Toluene-d8	104		78.5 - 125	08/15/14 08:49	08/15/14 13:29	1.00
4-bromofluorobenzene	101		69.8 - 140	08/15/14 08:49	08/15/14 13:29	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.765		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:07	1.00
1,2-Dibromo-3-chloropropane	ND		0.765		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:07	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1221	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1232	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1242	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1248	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1254	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1260	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00
PCB-1268	ND		9.64		ug/kg dry	☼	08/19/14 08:36	08/19/14 18:46	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	132		46.2 - 210	08/19/14 08:36	08/19/14 18:46	1.00
Decachlorobiphenyl	119		65.6 - 186	08/19/14 08:36	08/19/14 18:46	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B4 (7-8')

Lab Sample ID: SXH0089-14

Date Collected: 08/11/14 16:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 97.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
2-Methylnaphthalene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
1-Methylnaphthalene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Acenaphthylene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Acenaphthene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Fluorene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Phenanthrene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Anthracene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Fluoranthene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Pyrene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Benzo (a) anthracene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Chrysene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Benzo (b) fluoranthene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Benzo (k) fluoranthene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Benzo (a) pyrene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Dibenzo (a,h) anthracene	ND		0.0115		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00
Benzo (ghi) perylene	ND		0.0191		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:13	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73.0		36.3 - 152	08/21/14 08:39	08/21/14 20:13	1.00
2-FBP	71.0		30.2 - 135	08/21/14 08:39	08/21/14 20:13	1.00
p-Terphenyl-d14	101		65.1 - 134	08/21/14 08:39	08/21/14 20:13	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		31		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:56	1.0
Diesel Range Hydrocarbons	ND		78		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:56	1.0
Heavy Oil Range Hydrocarbons	ND		78		mg/kg dry	☼	08/15/14 11:27	08/15/14 23:56	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	89.3		50 - 150	08/15/14 11:27	08/15/14 23:56	1.0
2-FBP	94.8		50 - 150	08/15/14 11:27	08/15/14 23:56	1.0
p-Terphenyl-d14	105		50 - 150	08/15/14 11:27	08/15/14 23:56	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.40		1.21		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:49	1.00
Cadmium	ND		0.194		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:49	1.00
Chromium	13.5		0.485		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:49	1.00
Lead	2.20		1.21		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:49	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		49.0		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:40	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B5 (2-3')

Lab Sample ID: SXH0089-15

Date Collected: 08/11/14 10:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.46		1.17		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00
Barium	60.4		0.468		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00
Cadmium	ND		0.187		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00
Chromium	7.33		0.468		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00
Lead	24.8		1.17		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00
Selenium	ND		2.34		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00
Silver	ND		0.468		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:30	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	48.8		48.1		ug/kg dry	☼	08/28/14 07:09	08/28/14 14:38	1.00

Client Sample ID: GEI-B5 (7-8')

Lab Sample ID: SXH0089-16

Date Collected: 08/11/14 10:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0623		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
Hexane	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
Benzene	ND		0.0187		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
1,2-Dichloroethane (EDC)	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
Trichloroethene	ND		0.0311		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
Toluene	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
Tetrachloroethene	ND		0.0498		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
Ethylbenzene	ND		0.125		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
m,p-Xylene	ND		0.498		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00
o-Xylene	ND		0.249		mg/kg dry	☼	08/15/14 08:49	08/15/14 13:51	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.7		80 - 120	08/15/14 08:49	08/15/14 13:51	1.00
1,2-dichloroethane-d4	98.9		74.7 - 120	08/15/14 08:49	08/15/14 13:51	1.00
Toluene-d8	102		78.5 - 125	08/15/14 08:49	08/15/14 13:51	1.00
4-bromofluorobenzene	98.3		69.8 - 140	08/15/14 08:49	08/15/14 13:51	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.978		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:21	1.00
1,2-Dibromo-3-chloropropane	ND		0.978		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:21	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00
PCB-1221	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00
PCB-1232	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00
PCB-1242	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00
PCB-1248	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00
PCB-1254	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:07	1.00
PCB-1260	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00
PCB-1268	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:07	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B5 (7-8')

Lab Sample ID: SXH0089-16

Date Collected: 08/11/14 10:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	134		46.2 - 210	08/19/14 08:36	08/19/14 19:07	1.00
Decachlorobiphenyl	114		65.6 - 186	08/19/14 08:36	08/19/14 19:07	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
2-Methylnaphthalene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
1-Methylnaphthalene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Acenaphthylene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Acenaphthene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Fluorene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Phenanthrene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Anthracene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Fluoranthene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Pyrene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Benzo (a) anthracene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Chrysene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Benzo (b) fluoranthene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Benzo (k) fluoranthene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Benzo (a) pyrene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Dibenzo (a,h) anthracene	ND		0.0129		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00
Benzo (ghi) perylene	ND		0.0215		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:35	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73.4		36.3 - 152	08/21/14 08:39	08/21/14 20:35	1.00
2-FBP	78.0		30.2 - 135	08/21/14 08:39	08/21/14 20:35	1.00
p-Terphenyl-d14	108		65.1 - 134	08/21/14 08:39	08/21/14 20:35	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		37		mg/kg dry	☼	08/15/14 11:27	08/16/14 00:20	1.0
Diesel Range Hydrocarbons	ND		93		mg/kg dry	☼	08/15/14 11:27	08/16/14 00:20	1.0
Heavy Oil Range Hydrocarbons	ND		93		mg/kg dry	☼	08/15/14 11:27	08/16/14 00:20	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	90.0		50 - 150	08/15/14 11:27	08/16/14 00:20	1.0
2-FBP	96.9		50 - 150	08/15/14 11:27	08/16/14 00:20	1.0
p-Terphenyl-d14	106		50 - 150	08/15/14 11:27	08/16/14 00:20	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.77		2.41		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:41	2.00
Cadmium	ND	RL3	0.386		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:41	2.00
Chromium	16.6		0.964		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:41	2.00
Lead	3.68		2.41		mg/kg dry	☼	08/18/14 09:11	08/27/14 17:41	2.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	194		48.1		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:42	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B6 (2-3')

Lab Sample ID: SXH0089-17

Date Collected: 08/11/14 14:05

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.4		1.31		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00
Barium	93.4		0.524		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00
Cadmium	1.24		0.210		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00
Chromium	13.2		0.524		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00
Lead	343		1.31		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00
Selenium	ND		2.62		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00
Silver	ND		0.524		mg/kg dry	☼	08/27/14 13:45	08/29/14 11:34	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	126		41.7		ug/kg dry	☼	08/28/14 07:09	08/28/14 14:41	1.00

Client Sample ID: GEI-B6 (13-14')

Lab Sample ID: SXH0089-19

Date Collected: 08/11/14 14:25

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0605		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
Hexane	ND		0.121		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
Benzene	ND		0.0182		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
1,2-Dichloroethane (EDC)	ND		0.121		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
Trichloroethene	ND		0.0303		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
Toluene	ND		0.121		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
Tetrachloroethene	ND		0.0484		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
Ethylbenzene	ND		0.121		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
m,p-Xylene	ND		0.484		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00
o-Xylene	ND		0.242		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:14	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101		80 - 120	08/15/14 08:49	08/15/14 14:14	1.00
1,2-dichloroethane-d4	102		74.7 - 120	08/15/14 08:49	08/15/14 14:14	1.00
Toluene-d8	101		78.5 - 125	08/15/14 08:49	08/15/14 14:14	1.00
4-bromofluorobenzene	101		69.8 - 140	08/15/14 08:49	08/15/14 14:14	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.929		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:36	1.00
1,2-Dibromo-3-chloropropane	ND		0.929		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:36	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00
PCB-1221	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00
PCB-1232	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00
PCB-1242	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00
PCB-1248	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00
PCB-1254	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/20/14 11:28	1.00
PCB-1260	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00
PCB-1268	ND		10.3		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:28	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B6 (13-14')

Lab Sample ID: SXH0089-19

Date Collected: 08/11/14 14:25

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	102		46.2 - 210	08/19/14 08:36	08/19/14 19:28	1.00
Decachlorobiphenyl	113		65.6 - 186	08/19/14 08:36	08/19/14 19:28	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
2-Methylnaphthalene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
1-Methylnaphthalene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Acenaphthylene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Acenaphthene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Fluorene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Phenanthrene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Anthracene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Fluoranthene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Pyrene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Benzo (a) anthracene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Chrysene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Benzo (b) fluoranthene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Benzo (k) fluoranthene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Benzo (a) pyrene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Dibenzo (a,h) anthracene	ND		0.0124		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00
Benzo (ghi) perylene	ND		0.0207		mg/kg dry	☼	08/21/14 08:39	08/21/14 20:58	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	84.2		36.3 - 152	08/21/14 08:39	08/21/14 20:58	1.00
2-FBP	88.2		30.2 - 135	08/21/14 08:39	08/21/14 20:58	1.00
p-Terphenyl-d14	120		65.1 - 134	08/21/14 08:39	08/21/14 20:58	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		38		mg/kg dry	☼	08/15/14 11:27	08/16/14 00:44	1.0
Diesel Range Hydrocarbons	ND		96		mg/kg dry	☼	08/15/14 11:27	08/16/14 00:44	1.0
Heavy Oil Range Hydrocarbons	ND		96		mg/kg dry	☼	08/15/14 11:27	08/16/14 00:44	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	89.2		50 - 150	08/15/14 11:27	08/16/14 00:44	1.0
2-FBP	95.6		50 - 150	08/15/14 11:27	08/16/14 00:44	1.0
p-Terphenyl-d14	106		50 - 150	08/15/14 11:27	08/16/14 00:44	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.39		1.37		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:57	1.00
Cadmium	ND		0.219		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:57	1.00
Chromium	15.7		0.547		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:57	1.00
Lead	4.77		1.37		mg/kg dry	☼	08/18/14 09:11	08/27/14 15:57	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		41.0		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:45	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B7 (13-14')

Lab Sample ID: SXH0089-21

Date Collected: 08/11/14 08:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0750		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
Hexane	ND		0.150		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
Benzene	ND		0.0225		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
1,2-Dichloroethane (EDC)	ND		0.150		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
Trichloroethene	ND		0.0375		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
Toluene	ND		0.150		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
Tetrachloroethene	ND		0.0600		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
Ethylbenzene	ND		0.150		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
m,p-Xylene	ND		0.600		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00
o-Xylene	ND		0.300		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:36	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		80 - 120	08/15/14 08:49	08/15/14 14:36	1.00
1,2-dichloroethane-d4	97.9		74.7 - 120	08/15/14 08:49	08/15/14 14:36	1.00
Toluene-d8	102		78.5 - 125	08/15/14 08:49	08/15/14 14:36	1.00
4-bromofluorobenzene	103		69.8 - 140	08/15/14 08:49	08/15/14 14:36	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.05		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:50	1.00
1,2-Dibromo-3-chloropropane	ND		1.05		ug/kg dry	☼	08/15/14 10:04	08/15/14 15:50	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1221	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1232	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1242	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1248	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1254	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1260	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00
PCB-1268	ND		9.29		ug/kg dry	☼	08/19/14 08:36	08/19/14 19:49	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	130		46.2 - 210	08/19/14 08:36	08/19/14 19:49	1.00
Decachlorobiphenyl	117		65.6 - 186	08/19/14 08:36	08/19/14 19:49	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
2-Methylnaphthalene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
1-Methylnaphthalene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Acenaphthylene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Acenaphthene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Fluorene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Phenanthrene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Anthracene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Fluoranthene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Pyrene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Benzo (a) anthracene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Chrysene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B7 (13-14')

Lab Sample ID: SXH0089-21

Date Collected: 08/11/14 08:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (b) fluoranthene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Benzo (k) fluoranthene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Benzo (a) pyrene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Dibenzo (a,h) anthracene	ND		0.0118		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00
Benzo (ghi) perylene	ND		0.0197		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:20	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	67.4		36.3 - 152	08/21/14 08:39	08/21/14 21:20	1.00
2-FBP	65.0		30.2 - 135	08/21/14 08:39	08/21/14 21:20	1.00
p-Terphenyl-d14	118		65.1 - 134	08/21/14 08:39	08/21/14 21:20	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		41		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:08	1.0
Diesel Range Hydrocarbons	ND		100		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:08	1.0
Heavy Oil Range Hydrocarbons	ND		100		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:08	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	94.7		50 - 150	08/15/14 11:27	08/16/14 01:08	1.0
2-FBP	98.8		50 - 150	08/15/14 11:27	08/16/14 01:08	1.0
p-Terphenyl-d14	110		50 - 150	08/15/14 11:27	08/16/14 01:08	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.41		1.36		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:01	1.00
Cadmium	ND		0.217		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:01	1.00
Chromium	15.1		0.543		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:01	1.00
Lead	3.71		1.36		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:01	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		48.1		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:47	1.00

Client Sample ID: GEI-B8 (14-15')

Lab Sample ID: SXH0089-23

Date Collected: 08/11/14 12:15

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0661		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
Hexane	ND		0.132		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
Benzene	ND		0.0198		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
1,2-Dichloroethane (EDC)	ND		0.132		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
Trichloroethene	ND		0.0330		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
Toluene	ND		0.132		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
Tetrachloroethene	ND		0.0528		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
Ethylbenzene	ND		0.132		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
m,p-Xylene	ND		0.528		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00
o-Xylene	ND		0.264		mg/kg dry	☼	08/15/14 08:49	08/15/14 14:58	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B8 (14-15')

Lab Sample ID: SXH0089-23

Date Collected: 08/11/14 12:15

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.9		80 - 120	08/15/14 08:49	08/15/14 14:58	1.00
1,2-dichloroethane-d4	100		74.7 - 120	08/15/14 08:49	08/15/14 14:58	1.00
Toluene-d8	102		78.5 - 125	08/15/14 08:49	08/15/14 14:58	1.00
4-bromofluorobenzene	103		69.8 - 140	08/15/14 08:49	08/15/14 14:58	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.01		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:04	1.00
1,2-Dibromo-3-chloropropane	ND		1.01		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:04	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1221	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1232	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1242	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1248	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1254	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1260	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00
PCB-1268	ND		9.46		ug/kg dry	☼	08/19/14 08:36	08/20/14 12:49	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	100		46.2 - 210	08/19/14 08:36	08/20/14 12:49	1.00
Decachlorobiphenyl	119		65.6 - 186	08/19/14 08:36	08/20/14 12:49	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
2-Methylnaphthalene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
1-Methylnaphthalene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Acenaphthylene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Acenaphthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Fluorene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Phenanthrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Anthracene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Fluoranthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Pyrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Benzo (a) anthracene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Chrysene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Benzo (b) fluoranthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Benzo (k) fluoranthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Benzo (a) pyrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Dibenzo (a,h) anthracene	ND		0.0120		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00
Benzo (ghi) perylene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 21:43	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	51.8		36.3 - 152	08/21/14 08:39	08/21/14 21:43	1.00
2-FBP	55.4		30.2 - 135	08/21/14 08:39	08/21/14 21:43	1.00
p-Terphenyl-d14	103		65.1 - 134	08/21/14 08:39	08/21/14 21:43	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B8 (14-15')

Lab Sample ID: SXH0089-23

Date Collected: 08/11/14 12:15

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.3

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		36		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:32	1.0
Diesel Range Hydrocarbons	ND		90		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:32	1.0
Heavy Oil Range Hydrocarbons	ND		90		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:32	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	92.4		50 - 150				08/15/14 11:27	08/16/14 01:32	1.0
2-FBP	99.8		50 - 150				08/15/14 11:27	08/16/14 01:32	1.0
p-Terphenyl-d14	108		50 - 150				08/15/14 11:27	08/16/14 01:32	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.86		1.22		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:14	1.00
Cadmium	ND		0.195		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:14	1.00
Chromium	9.40		0.487		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:14	1.00
Lead	3.81		1.22		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:14	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		36.8		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:49	1.00

Client Sample ID: GEI-B9 (13-14')

Lab Sample ID: SXH0089-25

Date Collected: 08/11/14 14:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0490		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Hexane	ND		0.0980		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Benzene	ND		0.0147		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
1,2-Dichloroethane (EDC)	ND		0.0980		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Trichloroethene	ND		0.0245		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Toluene	ND		0.0980		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Tetrachloroethene	ND		0.0392		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Ethylbenzene	ND		0.0980		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
m,p-Xylene	ND		0.392		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
o-Xylene	ND		0.196		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:20	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		80 - 120				08/15/14 08:49	08/15/14 15:20	1.00
1,2-dichloroethane-d4	100		74.7 - 120				08/15/14 08:49	08/15/14 15:20	1.00
Toluene-d8	101		78.5 - 125				08/15/14 08:49	08/15/14 15:20	1.00
4-bromofluorobenzene	101		69.8 - 140				08/15/14 08:49	08/15/14 15:20	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.922		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:19	1.00
1,2-Dibromo-3-chloropropane	ND		0.922		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:19	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B9 (13-14')

Lab Sample ID: SXH0089-25

Date Collected: 08/11/14 14:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.5

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00
PCB-1232	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00
PCB-1242	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00
PCB-1248	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00
PCB-1254	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00
PCB-1260	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00
PCB-1268	ND		10.1		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:32	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	127		46.2 - 210	08/19/14 08:36	08/19/14 20:32	1.00
Decachlorobiphenyl	121		65.6 - 186	08/19/14 08:36	08/19/14 20:32	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
2-Methylnaphthalene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
1-Methylnaphthalene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Acenaphthylene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Acenaphthene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Fluorene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Phenanthrene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Anthracene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Fluoranthene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Pyrene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Benzo (a) anthracene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Chrysene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Benzo (b) fluoranthene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Benzo (k) fluoranthene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Benzo (a) pyrene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Dibenzo (a,h) anthracene	ND		0.0111		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00
Benzo (ghi) perylene	ND		0.0185		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:05	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78.2		36.3 - 152	08/21/14 08:39	08/21/14 22:05	1.00
2-FBP	75.2		30.2 - 135	08/21/14 08:39	08/21/14 22:05	1.00
p-Terphenyl-d14	118		65.1 - 134	08/21/14 08:39	08/21/14 22:05	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		34		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:56	1.0
Diesel Range Hydrocarbons	ND		85		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:56	1.0
Heavy Oil Range Hydrocarbons	ND		85		mg/kg dry	☼	08/15/14 11:27	08/16/14 01:56	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	95.1		50 - 150	08/15/14 11:27	08/16/14 01:56	1.0
2-FBP	102		50 - 150	08/15/14 11:27	08/16/14 01:56	1.0
p-Terphenyl-d14	112		50 - 150	08/15/14 11:27	08/16/14 01:56	1.0

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B9 (13-14')

Lab Sample ID: SXH0089-25

Date Collected: 08/11/14 14:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.92		1.26		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:18	1.00
Cadmium	ND		0.201		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:18	1.00
Chromium	9.33		0.503		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:18	1.00
Lead	3.48		1.26		mg/kg dry	☼	08/18/14 09:11	08/27/14 16:18	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		47.2		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:52	1.00

Client Sample ID: Duplicate 1

Lab Sample ID: SXH0089-26

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0534		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
Hexane	ND		0.107		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
Benzene	ND		0.0160		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
1,2-Dichloroethane (EDC)	ND		0.107		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
Trichloroethene	ND		0.0267		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
Toluene	ND		0.107		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
Tetrachloroethene	ND		0.0427		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
Ethylbenzene	ND		0.107		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
m,p-Xylene	ND		0.427		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00
o-Xylene	ND		0.214		mg/kg dry	☼	08/15/14 08:49	08/15/14 15:43	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		80 - 120	08/15/14 08:49	08/15/14 15:43	1.00
1,2-dichloroethane-d4	99.5		74.7 - 120	08/15/14 08:49	08/15/14 15:43	1.00
Toluene-d8	103		78.5 - 125	08/15/14 08:49	08/15/14 15:43	1.00
4-bromofluorobenzene	102		69.8 - 140	08/15/14 08:49	08/15/14 15:43	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.857		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:33	1.00
1,2-Dibromo-3-chloropropane	ND		0.857		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:33	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1221	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1232	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1242	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1248	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1254	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1260	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00
PCB-1268	ND		8.96		ug/kg dry	☼	08/19/14 08:36	08/19/14 20:53	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	120		46.2 - 210	08/19/14 08:36	08/19/14 20:53	1.00
Decachlorobiphenyl	122		65.6 - 186	08/19/14 08:36	08/19/14 20:53	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: Duplicate 1

Lab Sample ID: SXH0089-26

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
2-Methylnaphthalene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
1-Methylnaphthalene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Acenaphthylene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Acenaphthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Fluorene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Phenanthrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Anthracene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Fluoranthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Pyrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Benzo (a) anthracene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Chrysene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Benzo (b) fluoranthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Benzo (k) fluoranthene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Benzo (a) pyrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Dibenzo (a,h) anthracene	ND		0.0120		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00
Benzo (ghi) perylene	ND		0.0200		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:27	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	84.6		36.3 - 152	08/21/14 08:39	08/21/14 22:27	1.00
2-FBP	81.8		30.2 - 135	08/21/14 08:39	08/21/14 22:27	1.00
p-Terphenyl-d14	110		65.1 - 134	08/21/14 08:39	08/21/14 22:27	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		34		mg/kg dry	☼	08/15/14 11:27	08/16/14 02:20	1.0
Diesel Range Hydrocarbons	ND		86		mg/kg dry	☼	08/15/14 11:27	08/16/14 02:20	1.0
Heavy Oil Range Hydrocarbons	ND		86		mg/kg dry	☼	08/15/14 11:27	08/16/14 02:20	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	91.9		50 - 150	08/15/14 11:27	08/16/14 02:20	1.0
2-FBP	97.5		50 - 150	08/15/14 11:27	08/16/14 02:20	1.0
p-Terphenyl-d14	109		50 - 150	08/15/14 11:27	08/16/14 02:20	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.50		1.25		mg/kg dry	☼	08/21/14 14:35	08/22/14 12:47	1.00
Cadmium	ND		0.199		mg/kg dry	☼	08/21/14 14:35	08/22/14 12:47	1.00
Chromium	15.2		0.499		mg/kg dry	☼	08/21/14 14:35	08/22/14 12:47	1.00
Lead	1.40		1.25		mg/kg dry	☼	08/21/14 14:35	08/22/14 12:47	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		43.9		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:54	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: Duplicate 2

Lab Sample ID: SXH0089-27

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0740		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
Hexane	ND		0.148		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
Benzene	ND		0.0222		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
1,2-Dichloroethane (EDC)	ND		0.148		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
Trichloroethene	ND		0.0370		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
Toluene	ND		0.148		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
Tetrachloroethene	ND		0.0592		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
Ethylbenzene	ND		0.148		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
m,p-Xylene	ND		0.592		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00
o-Xylene	ND		0.296		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:05	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	103		80 - 120	08/15/14 08:49	08/15/14 16:05	1.00
1,2-dichloroethane-d4	102		74.7 - 120	08/15/14 08:49	08/15/14 16:05	1.00
Toluene-d8	103		78.5 - 125	08/15/14 08:49	08/15/14 16:05	1.00
4-bromofluorobenzene	101		69.8 - 140	08/15/14 08:49	08/15/14 16:05	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.08		ug/kg dry	☼	08/15/14 10:04	08/15/14 16:47	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1221	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1232	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1242	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1248	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1254	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1260	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00
PCB-1268	ND		8.86		ug/kg dry	☼	08/19/14 08:36	08/19/14 21:14	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	99.1		46.2 - 210	08/19/14 08:36	08/19/14 21:14	1.00
Decachlorobiphenyl	114		65.6 - 186	08/19/14 08:36	08/19/14 21:14	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
2-Methylnaphthalene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
1-Methylnaphthalene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Acenaphthylene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Acenaphthene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Fluorene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Phenanthrene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Anthracene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Fluoranthene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Pyrene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Benzo (a) anthracene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Chrysene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Benzo (b) fluoranthene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: Duplicate 2

Lab Sample ID: SXH0089-27

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (k) fluoranthene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Benzo (a) pyrene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Dibenzo (a,h) anthracene	ND		0.0119		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Benzo (ghi) perylene	ND		0.0198		mg/kg dry	☼	08/21/14 08:39	08/21/14 22:50	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	79.6		36.3 - 152				08/21/14 08:39	08/21/14 22:50	1.00
2-FBP	82.6		30.2 - 135				08/21/14 08:39	08/21/14 22:50	1.00
p-Terphenyl-d14	111		65.1 - 134				08/21/14 08:39	08/21/14 22:50	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		37		mg/kg dry	☼	08/15/14 11:27	08/16/14 02:44	1.0
Diesel Range Hydrocarbons	ND		92		mg/kg dry	☼	08/15/14 11:27	08/16/14 02:44	1.0
Heavy Oil Range Hydrocarbons	ND		92		mg/kg dry	☼	08/15/14 11:27	08/16/14 02:44	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	87.8		50 - 150				08/15/14 11:27	08/16/14 02:44	1.0
2-FBP	94.7		50 - 150				08/15/14 11:27	08/16/14 02:44	1.0
p-Terphenyl-d14	104		50 - 150				08/15/14 11:27	08/16/14 02:44	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.40		1.37		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:22	1.00
Cadmium	ND		0.220		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:22	1.00
Chromium	8.83		0.550		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:22	1.00
Lead	3.11		1.37		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:22	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		49.0		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:56	1.00

Client Sample ID: HWA-MW1-Composite

Lab Sample ID: SXH0089-28

Date Collected: 08/12/14 14:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0343		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
Benzene	ND		0.0171		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
Toluene	ND		0.114		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
Ethylbenzene	ND		0.114		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
m,p-Xylene	ND		0.457		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
o-Xylene	ND		0.229		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
1,2-Dichloroethane (EDC)	ND		0.114		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
Xylenes (total)	ND		0.686		mg/kg dry	☼	08/15/14 08:49	08/15/14 16:27	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.2		80 - 120				08/15/14 08:49	08/15/14 16:27	1.00
1,2-dichloroethane-d4	101		74.7 - 120				08/15/14 08:49	08/15/14 16:27	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: HWA-MW1-Composite

Lab Sample ID: SXH0089-28

Date Collected: 08/12/14 14:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8	102		78.5 - 125	08/15/14 08:49	08/15/14 16:27	1.00
4-bromofluorobenzene	101		69.8 - 140	08/15/14 08:49	08/15/14 16:27	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		33		mg/kg dry	☼	08/15/14 11:27	08/16/14 03:08	1.0
Diesel Range Hydrocarbons	ND		83		mg/kg dry	☼	08/15/14 11:27	08/16/14 03:08	1.0
Heavy Oil Range Hydrocarbons	ND		83		mg/kg dry	☼	08/15/14 11:27	08/16/14 03:08	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	89.1		50 - 150	08/15/14 11:27	08/16/14 03:08	1.0
2-FBP	97.0		50 - 150	08/15/14 11:27	08/16/14 03:08	1.0
p-Terphenyl-d14	108		50 - 150	08/15/14 11:27	08/16/14 03:08	1.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.33		1.22		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:25	1.00
Cadmium	ND		0.195		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:25	1.00
Chromium	11.2		0.488		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:25	1.00
Lead	3.13		1.22		mg/kg dry	☼	08/21/14 14:35	08/27/14 16:25	1.00

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		37.9		ug/kg dry	☼	08/28/14 07:10	08/28/14 15:59	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

Lab Sample ID: 14H0077-BLK1

Matrix: Soil

Analysis Batch: 14H0077

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0077_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Benzene	ND		0.0150		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Toluene	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Ethylbenzene	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
m,p-Xylene	ND		0.400		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
o-Xylene	ND		0.200		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Xylenes (total)	ND		0.600		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	104		80 - 120				08/15/14 08:49	08/15/14 10:29	1.00
1,2-dichloroethane-d4	101		74.7 - 120				08/15/14 08:49	08/15/14 10:29	1.00
Toluene-d8	101		78.5 - 125				08/15/14 08:49	08/15/14 10:29	1.00
4-bromofluorobenzene	99.8		69.8 - 140				08/15/14 08:49	08/15/14 10:29	1.00

Lab Sample ID: 14H0077-BS1

Matrix: Soil

Analysis Batch: 14H0077

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0077_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	0.500	0.484		mg/kg wet		96.8	60 - 140
Benzene	0.500	0.475		mg/kg wet		95.0	75.8 - 123
Toluene	0.500	0.496		mg/kg wet		99.2	76.6 - 125
Ethylbenzene	0.500	0.496		mg/kg wet		99.1	77.3 - 121
m,p-Xylene	0.500	0.498		mg/kg wet		99.5	77.7 - 124
o-Xylene	0.500	0.506		mg/kg wet		101	76.7 - 129
Naphthalene	0.500	0.399		mg/kg wet		79.8	55.1 - 142
Xylenes (total)	1.00	1.00		mg/kg wet		100	76.5 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane	103		80 - 120				
1,2-dichloroethane-d4	104		74.7 - 120				
Toluene-d8	101		78.5 - 125				
4-bromofluorobenzene	97.3		69.8 - 140				

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

Lab Sample ID: 14H0077-BLK1

Matrix: Soil

Analysis Batch: 14H0077

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0077_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0500		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Hexane	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Benzene	ND		0.0150		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Trichloroethene	ND		0.0250		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

Lab Sample ID: 14H0077-BLK1

Matrix: Soil

Analysis Batch: 14H0077

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0077_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Tetrachloroethene	ND		0.0400		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
Ethylbenzene	ND		0.100		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
m,p-Xylene	ND		0.400		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00
o-Xylene	ND		0.200		mg/kg wet		08/15/14 08:49	08/15/14 10:29	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	104		80 - 120	08/15/14 08:49	08/15/14 10:29	1.00
1,2-dichloroethane-d4	101		74.7 - 120	08/15/14 08:49	08/15/14 10:29	1.00
Toluene-d8	101		78.5 - 125	08/15/14 08:49	08/15/14 10:29	1.00
4-bromofluorobenzene	99.8		69.8 - 140	08/15/14 08:49	08/15/14 10:29	1.00

Lab Sample ID: 14H0077-BS1

Matrix: Soil

Analysis Batch: 14H0077

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0077_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.484		mg/kg wet		96.8	60 - 140
Hexane	0.500	0.486		mg/kg wet		97.2	77 - 130
Benzene	0.500	0.475		mg/kg wet		95.0	75.8 - 123
1,2-Dichloroethane (EDC)	0.500	0.516		mg/kg wet		103	71.1 - 142
Trichloroethene	0.500	0.488		mg/kg wet		97.6	78.5 - 134
Toluene	0.500	0.496		mg/kg wet		99.2	76.6 - 125
Tetrachloroethene	0.500	0.512		mg/kg wet		102	80 - 127
Ethylbenzene	0.500	0.496		mg/kg wet		99.1	77.3 - 121
m,p-Xylene	0.500	0.498		mg/kg wet		99.5	77.7 - 124
o-Xylene	0.500	0.506		mg/kg wet		101	76.7 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	103		80 - 120
1,2-dichloroethane-d4	104		74.7 - 120
Toluene-d8	101		78.5 - 125
4-bromofluorobenzene	97.3		69.8 - 140

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14H0079-BLK1

Matrix: Soil

Analysis Batch: 14H0079

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0079_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		08/15/14 10:04	08/15/14 12:29	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

Lab Sample ID: 14H0079-BS1

Matrix: Soil

Analysis Batch: 14H0079

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0079_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	3.42		ug/kg wet		68.5	60 - 140

Lab Sample ID: 14H0079-BS2

Matrix: Soil

Analysis Batch: 14H0079

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0079_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	4.68		ug/kg wet		93.6	60 - 140

Lab Sample ID: 14H0079-MS1

Matrix: Soil

Analysis Batch: 14H0079

Client Sample ID: Duplicate 2

Prep Type: Total

Prep Batch: 14H0079_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	ND		4.84	5.16		ug/kg dry	☼	107	60 - 140

Lab Sample ID: 14H0079-MSD1

Matrix: Soil

Analysis Batch: 14H0079

Client Sample ID: Duplicate 2

Prep Type: Total

Prep Batch: 14H0079_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		6.56	7.19	R2	ug/kg dry	☼	110	60 - 140	32.9	20

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Lab Sample ID: 14H0093-BLK1

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0093_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1221	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1232	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1242	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1248	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1254	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1260	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00
PCB-1268	ND		10.0		ug/kg wet		08/19/14 08:36	08/19/14 14:54	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	103		46.2 - 210	08/19/14 08:36	08/19/14 14:54	1.00
Decachlorobiphenyl	112		65.6 - 186	08/19/14 08:36	08/19/14 14:54	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 14H0093-BLK2

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0093_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1221	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1232	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1242	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1248	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1254	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1260	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
PCB-1268	ND		10.0		ug/kg wet		08/19/14 08:36	08/20/14 12:28	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	109		46.2 - 210				08/19/14 08:36	08/20/14 12:28	1.00
Decachlorobiphenyl	147		65.6 - 186				08/19/14 08:36	08/20/14 12:28	1.00

Lab Sample ID: 14H0093-BS1

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0093_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	33.3	40.9		ug/kg wet		123	44.4 - 180
PCB-1260	33.3	41.0		ug/kg wet		123	60.3 - 169
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
TCX	112		46.2 - 210				
Decachlorobiphenyl	114		65.6 - 186				

Lab Sample ID: 14H0093-BS2

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0093_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	33.3	38.7		ug/kg wet		116	44.4 - 180
PCB-1260	33.3	38.2		ug/kg wet		115	60.3 - 169
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
TCX	107		46.2 - 210				
Decachlorobiphenyl	111		65.6 - 186				

Lab Sample ID: 14H0093-MS1

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: GEI-MW-1 (12.5-13.5')

Prep Type: Total

Prep Batch: 14H0093_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
PCB-1016	ND		31.4	38.0		ug/kg dry	☼	121	50.6 - 145
PCB-1260	ND		31.4	37.2		ug/kg dry	☼	119	57.6 - 120
Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits						
TCX	110		46.2 - 210						

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 14H0093-MS1

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: GEI-MW-1 (12.5-13.5')

Prep Type: Total

Prep Batch: 14H0093_P

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
Decachlorobiphenyl	112		65.6 - 186

Lab Sample ID: 14H0093-MSD1

Matrix: Soil

Analysis Batch: 14H0093

Client Sample ID: GEI-MW-1 (12.5-13.5')

Prep Type: Total

Prep Batch: 14H0093_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND		31.5	38.5		ug/kg dry	☼	122	50.6 - 145	1.36	40
PCB-1260	ND		31.5	38.8	M7	ug/kg dry	☼	123	57.6 - 120	4.01	27.4

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
TCX	105		46.2 - 210
Decachlorobiphenyl	115		65.6 - 186

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

Lab Sample ID: 14H0115-BLK1

Matrix: Soil

Analysis Batch: 14H0115

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0115_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
2-Methylnaphthalene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
1-Methylnaphthalene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Acenaphthylene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Acenaphthene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Fluorene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Phenanthrene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Anthracene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Fluoranthene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Pyrene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Benzo (a) anthracene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Chrysene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Benzo (b) fluoranthene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Benzo (k) fluoranthene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Benzo (a) pyrene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Dibenzo (a,h) anthracene	ND		0.0120		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00
Benzo (ghi) perylene	ND		0.0200		mg/kg wet		08/21/14 08:39	08/21/14 16:27	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	100		36.3 - 152	08/21/14 08:39	08/21/14 16:27	1.00
2-FBP	96.2		30.2 - 135	08/21/14 08:39	08/21/14 16:27	1.00
p-Terphenyl-d14	139	Z2	65.1 - 134	08/21/14 08:39	08/21/14 16:27	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

Lab Sample ID: 14H0115-BS1

Matrix: Soil

Analysis Batch: 14H0115

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0115_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.267	0.203		mg/kg wet		76.0	62.7 - 120
Fluorene	0.267	0.247		mg/kg wet		92.5	67.9 - 124
Chrysene	0.267	0.249		mg/kg wet		93.5	68.2 - 132
Indeno (1,2,3-cd) pyrene	0.267	0.273		mg/kg wet		102	52.6 - 149

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	95.2		36.3 - 152
2-FBP	91.6		30.2 - 135
p-Terphenyl-d14	122		65.1 - 134

Lab Sample ID: 14H0115-MS1

Matrix: Soil

Analysis Batch: 14H0115

Client Sample ID: GEI-MW-1 (12.5-13.5')

Prep Type: Total

Prep Batch: 14H0115_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	ND		0.275	0.219		mg/kg dry	✱	79.5	30 - 120
Fluorene	ND		0.275	0.219		mg/kg dry	✱	79.5	30 - 140
Chrysene	ND		0.275	0.241		mg/kg dry	✱	87.5	30 - 133
Indeno (1,2,3-cd) pyrene	ND		0.275	0.242		mg/kg dry	✱	88.0	30 - 140

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
Nitrobenzene-d5	77.8		36.3 - 152
2-FBP	80.2		30.2 - 135
p-Terphenyl-d14	102		65.1 - 134

Lab Sample ID: 14H0115-MSD1

Matrix: Soil

Analysis Batch: 14H0115

Client Sample ID: GEI-MW-1 (12.5-13.5')

Prep Type: Total

Prep Batch: 14H0115_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Naphthalene	ND		0.261	0.196		mg/kg dry	✱	75.0	30 - 120	11.0	35
Fluorene	ND		0.261	0.200		mg/kg dry	✱	76.5	30 - 140	9.00	35
Chrysene	ND		0.261	0.216		mg/kg dry	✱	82.5	30 - 133	11.0	35
Indeno (1,2,3-cd) pyrene	ND		0.261	0.209		mg/kg dry	✱	80.0	30 - 140	14.7	35

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Nitrobenzene-d5	77.6		36.3 - 152
2-FBP	77.8		30.2 - 135
p-Terphenyl-d14	101		65.1 - 134

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

Lab Sample ID: 14H0139-BLK1

Matrix: Soil

Analysis Batch: 14H0139

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0139_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		08/25/14 13:21	08/25/14 17:08	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		08/25/14 13:21	08/25/14 17:08	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	104		50 - 150				08/25/14 13:21	08/25/14 17:08	1.00
<i>n</i> -Triacontane-d62	106		50 - 150				08/25/14 13:21	08/25/14 17:08	1.00

Lab Sample ID: 14H0139-BS1

Matrix: Soil

Analysis Batch: 14H0139

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0139_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	66.7	60.8		mg/kg wet		91.2	50 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl	112		50 - 150				
<i>n</i> -Triacontane-d62	105		50 - 150				

Lab Sample ID: 14H0139-DUP1

Matrix: Soil

Analysis Batch: 14H0139

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14H0139_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Diesel Range Hydrocarbons	ND		ND		mg/kg dry	☼		40
Heavy Oil Range Hydrocarbons	ND		ND		mg/kg dry	☼		40
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
<i>o</i> -Terphenyl	109		50 - 150					
<i>n</i> -Triacontane-d62	109		50 - 150					

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Lab Sample ID: 14H0081-BLK1

Matrix: Soil

Analysis Batch: 14H0081

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0081_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		08/15/14 11:27	08/15/14 19:53	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		08/15/14 11:27	08/15/14 19:53	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		08/15/14 11:27	08/15/14 19:53	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	93.7		50 - 150				08/15/14 11:27	08/15/14 19:53	1.00
2-FBP	94.7		50 - 150				08/15/14 11:27	08/15/14 19:53	1.00
<i>p</i> -Terphenyl-d14	103		50 - 150				08/15/14 11:27	08/15/14 19:53	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Lab Sample ID: 14H0081-DUP1

Matrix: Soil

Analysis Batch: 14H0081

Client Sample ID: GEI-MW-2 (12-13')

Prep Type: Total

Prep Batch: 14H0081_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Gasoline Range Hydrocarbons	5.78		ND	R4	mg/kg dry	☼	200	25
Diesel Range Hydrocarbons	10.5		10.4		mg/kg dry	☼	0.762	25
Heavy Oil Range Hydrocarbons	1.01		1.42	R4	mg/kg dry	☼	33.5	25
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
4-BFB (FID)	94.2		50 - 150					
2-FBP	95.2		50 - 150					
p-Terphenyl-d14	106		50 - 150					

Lab Sample ID: 14H0081-DUP2

Matrix: Soil

Analysis Batch: 14H0081

Client Sample ID: GEI-MW-3 (12-13')

Prep Type: Total

Prep Batch: 14H0081_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Gasoline Range Hydrocarbons	5.16		3.27	R4	mg/kg dry	☼	45.0	25
Diesel Range Hydrocarbons	10.7		16.8	R4	mg/kg dry	☼	44.2	25
Heavy Oil Range Hydrocarbons	1.65		3.17	R4	mg/kg dry	☼	63.4	25
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
4-BFB (FID)	98.1		50 - 150					
2-FBP	99.9		50 - 150					
p-Terphenyl-d14	107		50 - 150					

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

Lab Sample ID: 14H0088-BLK1

Matrix: Soil

Analysis Batch: 14H0088

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0088_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.25		mg/kg wet		08/18/14 09:11	08/26/14 09:43	1.00
Cadmium	ND		0.200		mg/kg wet		08/18/14 09:11	08/26/14 09:43	1.00
Chromium	ND		0.500		mg/kg wet		08/18/14 09:11	08/26/14 09:43	1.00
Lead	ND		1.25		mg/kg wet		08/18/14 09:11	08/26/14 09:43	1.00

Lab Sample ID: 14H0088-BS1

Matrix: Soil

Analysis Batch: 14H0088

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0088_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	49.5		mg/kg wet		99.1	80 - 120
Cadmium	50.0	48.9		mg/kg wet		97.8	80 - 120
Chromium	50.0	49.9		mg/kg wet		99.7	80 - 120
Lead	50.0	50.5		mg/kg wet		101	80 - 120

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

(Continued)

Lab Sample ID: 14H0088-MS1

Matrix: Soil

Analysis Batch: 14H0088

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 14H0088_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.80		54.2	50.7		mg/kg dry	☼	86.5	75 - 125
Cadmium	0.160		54.2	48.3		mg/kg dry	☼	88.7	75 - 125
Chromium	14.4		54.2	63.5		mg/kg dry	☼	90.5	75 - 125
Lead	5.31		54.2	49.8		mg/kg dry	☼	82.0	75 - 125

Lab Sample ID: 14H0088-MSD1

Matrix: Soil

Analysis Batch: 14H0088

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 14H0088_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.80		53.7	51.3		mg/kg dry	☼	88.4	75 - 125	1.07	20
Cadmium	0.160		53.7	49.1		mg/kg dry	☼	91.1	75 - 125	1.64	20
Chromium	14.4		53.7	57.3		mg/kg dry	☼	79.9	75 - 125	10.2	20
Lead	5.31		53.7	51.6		mg/kg dry	☼	86.2	75 - 125	3.59	20

Lab Sample ID: 14H0088-DUP1

Matrix: Soil

Analysis Batch: 14H0088

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14H0088_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	3.80		3.07	R4	mg/kg dry	☼	21.1	20
Cadmium	0.160		0.134		mg/kg dry	☼	17.9	20
Chromium	14.4		12.1		mg/kg dry	☼	17.7	20
Lead	5.31		4.84		mg/kg dry	☼	9.09	20

Lab Sample ID: 14H0122-BLK1

Matrix: Soil

Analysis Batch: 14H0122

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0122_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.25		mg/kg wet		08/21/14 14:35	08/22/14 11:47	1.00
Cadmium	ND		0.200		mg/kg wet		08/21/14 14:35	08/22/14 11:47	1.00
Chromium	ND		0.500		mg/kg wet		08/21/14 14:35	08/22/14 11:47	1.00
Lead	ND		1.25		mg/kg wet		08/21/14 14:35	08/22/14 11:47	1.00

Lab Sample ID: 14H0122-BS1

Matrix: Soil

Analysis Batch: 14H0122

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0122_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	48.8		mg/kg wet		97.7	80 - 120
Cadmium	50.0	49.3		mg/kg wet		98.5	80 - 120
Chromium	50.0	50.1		mg/kg wet		100	80 - 120
Lead	50.0	48.9		mg/kg wet		97.7	80 - 120

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

(Continued)

Lab Sample ID: 14H0122-MS1

Matrix: Soil

Analysis Batch: 14H0122

Client Sample ID: Duplicate 1

Prep Type: Total

Prep Batch: 14H0122_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.50		50.9	52.5		mg/kg dry	☼	90.5	75 - 125
Cadmium	0.0964		50.9	47.5		mg/kg dry	☼	93.2	75 - 125
Chromium	15.2		50.9	61.1		mg/kg dry	☼	90.4	75 - 125
Lead	1.40		50.9	45.5		mg/kg dry	☼	86.7	75 - 125

Lab Sample ID: 14H0122-MSD1

Matrix: Soil

Analysis Batch: 14H0122

Client Sample ID: Duplicate 1

Prep Type: Total

Prep Batch: 14H0122_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	6.50		51.4	54.5		mg/kg dry	☼	93.4	75 - 125	3.56	20
Cadmium	0.0964		51.4	49.4		mg/kg dry	☼	96.0	75 - 125	4.03	20
Chromium	15.2		51.4	63.9		mg/kg dry	☼	94.9	75 - 125	4.48	20
Lead	1.40		51.4	47.2		mg/kg dry	☼	89.1	75 - 125	3.62	20

Lab Sample ID: 14H0122-DUP1

Matrix: Soil

Analysis Batch: 14H0122

Client Sample ID: Duplicate 1

Prep Type: Total

Prep Batch: 14H0122_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	6.50		5.70		mg/kg dry	☼	13.2	20
Cadmium	0.0964		ND		mg/kg dry	☼		20
Chromium	15.2		15.9		mg/kg dry	☼	4.88	20
Lead	1.40		1.02	R4	mg/kg dry	☼	30.9	20

Lab Sample ID: 14H0160-BLK1

Matrix: Other (S)

Analysis Batch: 14H0160

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0160_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.25		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00
Barium	ND		0.500		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00
Cadmium	ND		0.200		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00
Chromium	ND		0.500		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00
Lead	ND		1.25		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00
Selenium	ND		2.50		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00
Silver	ND		0.500		mg/kg wet		08/27/14 13:45	08/28/14 06:51	1.00

Lab Sample ID: 14H0160-BS1

Matrix: Other (S)

Analysis Batch: 14H0160

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0160_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	49.2		mg/kg wet		98.4	80 - 120
Barium	50.0	50.5		mg/kg wet		101	80 - 120
Cadmium	50.0	50.0		mg/kg wet		100	80 - 120
Chromium	50.0	49.7		mg/kg wet		99.5	80 - 120
Lead	50.0	49.4		mg/kg wet		98.8	80 - 120

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

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

(Continued)

Lab Sample ID: 14H0160-BS1

Matrix: Other (S)

Analysis Batch: 14H0160

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0160_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	500	471		mg/kg wet		94.2	80 - 120
Silver	50.0	49.6		mg/kg wet		99.1	80 - 120

Lab Sample ID: 14H0160-MS1

Matrix: Other (S)

Analysis Batch: 14H0160

Client Sample ID: GEI-B4 (2-3')

Prep Type: Total

Prep Batch: 14H0160_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	14.3		53.4	67.8		mg/kg dry	✱	100	75 - 125
Barium	277		53.4	349	M1	mg/kg dry	✱	135	75 - 125
Cadmium	6.78		53.4	58.3		mg/kg dry	✱	96.4	75 - 125
Chromium	18.4		53.4	68.9		mg/kg dry	✱	94.5	75 - 125
Lead	865		53.4	1030	M1	mg/kg dry	✱	300	75 - 125
Selenium	ND		53.4	478		mg/kg dry	✱	89.6	75 - 125
Silver	ND		53.4	46.4		mg/kg dry	✱	86.8	75 - 125

Lab Sample ID: 14H0160-MSD1

Matrix: Other (S)

Analysis Batch: 14H0160

Client Sample ID: GEI-B4 (2-3')

Prep Type: Total

Prep Batch: 14H0160_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	14.3		53.9	66.7		mg/kg dry	✱	97.1	75 - 125	1.72	20
Barium	277		53.9	332		mg/kg dry	✱	101	75 - 125	5.23	20
Cadmium	6.78		53.9	58.3		mg/kg dry	✱	95.5	75 - 125	0.039	20
Chromium	18.4		53.9	67.8		mg/kg dry	✱	91.4	75 - 125	1.69	20
Lead	865		53.9	895	M2	mg/kg dry	✱	54.7	75 - 125	13.6	20
Selenium	ND		53.9	486		mg/kg dry	✱	90.1	75 - 125	1.52	20
Silver	ND		53.9	45.6		mg/kg dry	✱	84.6	75 - 125	1.66	20

Lab Sample ID: 14H0160-DUP1

Matrix: Other (S)

Analysis Batch: 14H0160

Client Sample ID: GEI-B4 (2-3')

Prep Type: Total

Prep Batch: 14H0160_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	14.3		14.2		mg/kg dry	✱	0.475	20
Barium	277		356	R4	mg/kg dry	✱	24.8	20
Cadmium	6.78		6.92		mg/kg dry	✱	2.10	20
Chromium	18.4		24.7	R4	mg/kg dry	✱	29.0	20
Lead	865		870		mg/kg dry	✱	0.552	20
Selenium	ND		ND		mg/kg dry	✱		20
Silver	ND		ND		mg/kg dry	✱		20

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Method: EPA 7471B - Total Metals by EPA 6010/7000 Series Methods

Lab Sample ID: 14H0162-BLK1

Matrix: Soil

Analysis Batch: 14H0162

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0162_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		50.0		ug/kg wet		08/28/14 07:09	08/28/14 14:27	1.00

Lab Sample ID: 14H0162-BS1

Matrix: Soil

Analysis Batch: 14H0162

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0162_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	200	203		ug/kg wet		102	80 - 120

Lab Sample ID: 14H0162-MS1

Matrix: Soil

Analysis Batch: 14H0162

Client Sample ID: GEI-B4 (2-3')

Prep Type: Total

Prep Batch: 14H0162_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	203		230	553	M1	ug/kg dry	✱	152	80 - 120

Lab Sample ID: 14H0162-MSD1

Matrix: Soil

Analysis Batch: 14H0162

Client Sample ID: GEI-B4 (2-3')

Prep Type: Total

Prep Batch: 14H0162_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	203		186	396	R	ug/kg dry	✱	104	80 - 120	33.1	20

Lab Sample ID: 14H0162-DUP1

Matrix: Soil

Analysis Batch: 14H0162

Client Sample ID: GEI-B4 (2-3')

Prep Type: Total

Prep Batch: 14H0162_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Mercury	203		529	R3	ug/kg dry	✱	88.9	40

Lab Sample ID: 14H0163-BLK1

Matrix: Soil

Analysis Batch: 14H0163

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0163_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		50.0		ug/kg wet		08/28/14 07:10	08/28/14 15:13	1.00

Lab Sample ID: 14H0163-BS1

Matrix: Soil

Analysis Batch: 14H0163

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0163_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	200	195		ug/kg wet		97.5	80 - 120

Lab Sample ID: 14H0163-MS1

Matrix: Soil

Analysis Batch: 14H0163

Client Sample ID: GEI-MW-1 (12.5-13.5')

Prep Type: Total

Prep Batch: 14H0163_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	22.4		221	249		ug/kg dry	✱	102	80 - 120

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Lab Sample ID: 14H0163-MSD1
Matrix: Soil
Analysis Batch: 14H0163

Client Sample ID: GEI-MW-1 (12.5-13.5')
Prep Type: Total
Prep Batch: 14H0163_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	22.4		248	270		ug/kg dry	☼	100	80 - 120	8.08	20

Lab Sample ID: 14H0163-DUP1
Matrix: Soil
Analysis Batch: 14H0163

Client Sample ID: GEI-MW-1 (12.5-13.5')
Prep Type: Total
Prep Batch: 14H0163_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Mercury	22.4		32.4		ug/kg dry	☼	36.6	40

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-1 (12.5-13.5')

Lab Sample ID: SXH0089-02

Date Collected: 08/12/14 14:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.17	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 11:14	CBW	TAL SPK
Total	Prep	EPA 3580		0.809	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 13:26	NMI	TAL SPK
Total	Prep	EPA 3550B		0.834	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 16:17	NMI	TAL SPK
Total	Prep	EPA 3550B		1.87	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 17:58	NMI	TAL SPK
Total	Prep	EPA 3580		0.99	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 21:07	NMI	TAL SPK
Total	Prep	EPA 3050B		0.971	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		2.00	14H0088	08/27/14 17:37	ICP	TAL SPK
Total	Prep	EPA 7471		0.943	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:15	ZZZ	TAL SPK

Client Sample ID: GEI-MW-2 (12-13')

Lab Sample ID: SXH0089-04

Date Collected: 08/13/14 11:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.945	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 11:37	CBW	TAL SPK
Total	Prep	EPA 3580		0.883	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 13:41	NMI	TAL SPK
Total	Prep	EPA 3550B		0.971	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 16:38	NMI	TAL SPK
Total	Prep	EPA 3550B		1.85	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 18:20	NMI	TAL SPK
Total	Prep	EPA 3580		0.80	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 21:31	NMI	TAL SPK
Total	Prep	EPA 3050B		1.05	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:29	ICP	TAL SPK
Total	Prep	EPA 7471		0.862	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:24	ZZZ	TAL SPK

Client Sample ID: GEI-MW-3 (12-13')

Lab Sample ID: SXH0089-06

Date Collected: 08/12/14 08:30

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.13	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 11:59	CBW	TAL SPK
Total	Prep	EPA 3580		0.808	14H0079_P	08/15/14 10:04	NI	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-MW-3 (12-13')

Lab Sample ID: SXH0089-06

Date Collected: 08/12/14 08:30

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 13:55	NMI	TAL SPK
Total	Prep	EPA 3550B		0.892	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 17:00	NMI	TAL SPK
Total	Prep	EPA 3550B		1.83	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 18:43	NMI	TAL SPK
Total	Prep	EPA 3580		0.86	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 21:55	NMI	TAL SPK
Total	Prep	EPA 3050B		1.00	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:33	ICP	TAL SPK
Total	Prep	EPA 7471		0.758	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:26	ZZZ	TAL SPK

Client Sample ID: GEI-B1 (2-3')

Lab Sample ID: SXH0089-07

Date Collected: 08/11/14 15:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.31	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 12:22	CBW	TAL SPK
Total	Prep	EPA 3580		0.990	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		5.00	14H0079	08/15/14 14:09	NMI	TAL SPK
Total	Prep	EPA 3550B		0.925	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		10.0	14H0093	08/20/14 11:49	NMI	TAL SPK
Total	Prep	EPA 3550B		6.15	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		20.0	14H0115	08/21/14 19:05	NMI	TAL SPK
Total	Prep	EPA 3550B		1.65	14H0139_P	08/25/14 13:21	MS	TAL SPK
Total	Analysis	NWTPH-Dx		20.0	14H0139	08/26/14 09:29	NMI	TAL SPK
Total	Prep	EPA 3580		2.5	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 22:19	NMI	TAL SPK
Total	Prep	EPA 3050B		1.06	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:37	ICP	TAL SPK
Total	Prep	EPA 7471		0.943	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:29	ZZZ	TAL SPK

Client Sample ID: GEI-B1 (12-13')

Lab Sample ID: SXH0089-08

Date Collected: 08/11/14 15:40

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3550B		0.992	14H0139_P	08/25/14 13:21	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0139	08/25/14 18:41	NMI	TAL SPK
Total	Prep	Wet Chem		1.00	14H0147_P	08/25/14 14:30	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14H0147	08/26/14 10:36	NI	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B2 (13-14')

Lab Sample ID: SXH0089-10

Date Collected: 08/11/14 12:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.904	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 12:44	CBW	TAL SPK
Total	Prep	EPA 3580		0.880	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 14:24	NMI	TAL SPK
Total	Prep	EPA 3550B		0.901	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 17:42	NMI	TAL SPK
Total	Prep	EPA 3550B		1.88	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 19:28	NMI	TAL SPK
Total	Prep	EPA 3580		0.95	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 23:08	NMI	TAL SPK
Total	Prep	EPA 3050B		0.952	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:41	ICP	TAL SPK
Total	Prep	EPA 7471		0.746	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:31	ZZZ	TAL SPK

Client Sample ID: GEI-B3 (7-8')

Lab Sample ID: SXH0089-12

Date Collected: 08/11/14 10:55

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.08	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 13:06	CBW	TAL SPK
Total	Prep	EPA 3580		0.818	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 14:38	NMI	TAL SPK
Total	Prep	EPA 3550B		1.00	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 18:03	NMI	TAL SPK
Total	Prep	EPA 3550B		1.77	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 19:50	NMI	TAL SPK
Total	Prep	EPA 3580		0.91	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 23:32	NMI	TAL SPK
Total	Prep	EPA 3050B		0.943	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:45	ICP	TAL SPK
Total	Prep	EPA 7471		0.847	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:38	ZZZ	TAL SPK

Client Sample ID: GEI-B4 (2-3')

Lab Sample ID: SXH0089-13

Date Collected: 08/11/14 16:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3050B		0.980	14H0160_P	08/27/14 13:45	JSP	TAL SPK
Total	Analysis	EPA 6010C		2.00	14H0160	08/28/14 08:12	ICP	TAL SPK
Total	Prep	EPA 7471		0.758	14H0162_P	08/28/14 07:09	JSP	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B4 (2-3')

Lab Sample ID: SXH0089-13

Date Collected: 08/11/14 16:20

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	EPA 7471B		1.00	14H0162	08/28/14 14:29	ZZZ	TAL SPK
Total	Prep	Wet Chem		1.00	14I0008_P	08/27/14 16:25	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14I0008	09/02/14 16:07	NI	TAL SPK

Client Sample ID: GEI-B4 (7-8')

Lab Sample ID: SXH0089-14

Date Collected: 08/11/14 16:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.16	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 13:29	CBW	TAL SPK
Total	Prep	EPA 3580		0.745	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 15:07	NMI	TAL SPK
Total	Prep	EPA 3550B		0.938	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 18:46	NMI	TAL SPK
Total	Prep	EPA 3550B		1.86	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 20:13	NMI	TAL SPK
Total	Prep	EPA 3580		0.76	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/15/14 23:56	NMI	TAL SPK
Total	Prep	EPA 3050B		0.943	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:49	ICP	TAL SPK
Total	Prep	EPA 7471		0.980	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:40	ZZZ	TAL SPK

Client Sample ID: GEI-B5 (2-3')

Lab Sample ID: SXH0089-15

Date Collected: 08/11/14 10:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3050B		0.855	14H0160_P	08/27/14 13:45	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0160	08/29/14 11:30	ICP	TAL SPK
Total	Prep	EPA 7471		0.962	14H0162_P	08/28/14 07:09	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0162	08/28/14 14:38	ZZZ	TAL SPK

Client Sample ID: GEI-B5 (7-8')

Lab Sample ID: SXH0089-16

Date Collected: 08/11/14 10:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.06	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 13:51	CBW	TAL SPK
Total	Prep	EPA 3580		0.898	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 15:21	NMI	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B5 (7-8')

Lab Sample ID: SXH0089-16

Date Collected: 08/11/14 10:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3550B		0.924	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 19:07	NMI	TAL SPK
Total	Prep	EPA 3550B		0.924	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/20/14 11:07	NMI	TAL SPK
Total	Prep	EPA 3550B		1.97	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 20:35	NMI	TAL SPK
Total	Prep	EPA 3580		0.85	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 00:20	NMI	TAL SPK
Total	Prep	EPA 3050B		0.885	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		2.00	14H0088	08/27/14 17:41	ICP	TAL SPK
Total	Prep	EPA 7471		0.962	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:42	ZZZ	TAL SPK

Client Sample ID: GEI-B6 (2-3')

Lab Sample ID: SXH0089-17

Date Collected: 08/11/14 14:05

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3050B		0.952	14H0160_P	08/27/14 13:45	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0160	08/29/14 11:34	ICP	TAL SPK
Total	Prep	EPA 7471		0.833	14H0162_P	08/28/14 07:09	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0162	08/28/14 14:41	ZZZ	TAL SPK

Client Sample ID: GEI-B6 (13-14')

Lab Sample ID: SXH0089-19

Date Collected: 08/11/14 14:25

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.11	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 14:14	CBW	TAL SPK
Total	Prep	EPA 3580		0.885	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 15:36	NMI	TAL SPK
Total	Prep	EPA 3550B		0.981	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 19:28	NMI	TAL SPK
Total	Prep	EPA 3550B		0.981	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/20/14 11:28	NMI	TAL SPK
Total	Prep	EPA 3550B		1.98	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 20:58	NMI	TAL SPK
Total	Prep	EPA 3580		0.91	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 00:44	NMI	TAL SPK
Total	Prep	EPA 3050B		1.04	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 15:57	ICP	TAL SPK
Total	Prep	EPA 7471		0.820	14H0163_P	08/28/14 07:10	JSP	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B6 (13-14')

Lab Sample ID: SXH0089-19

Date Collected: 08/11/14 14:25

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 95.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:45	ZZZ	TAL SPK

Client Sample ID: GEI-B7 (13-14')

Lab Sample ID: SXH0089-21

Date Collected: 08/11/14 08:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.35	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 14:36	CBW	TAL SPK
Total	Prep	EPA 3580		0.989	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 15:50	NMI	TAL SPK
Total	Prep	EPA 3550B		0.873	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 19:49	NMI	TAL SPK
Total	Prep	EPA 3550B		1.85	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 21:20	NMI	TAL SPK
Total	Prep	EPA 3580		0.97	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 01:08	NMI	TAL SPK
Total	Prep	EPA 3050B		1.02	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 16:01	ICP	TAL SPK
Total	Prep	EPA 7471		0.962	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:47	ZZZ	TAL SPK

Client Sample ID: GEI-B8 (14-15')

Lab Sample ID: SXH0089-23

Date Collected: 08/11/14 12:15

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.17	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 14:58	CBW	TAL SPK
Total	Prep	EPA 3580		0.943	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 16:04	NMI	TAL SPK
Total	Prep	EPA 3550B		0.882	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/20/14 12:49	NMI	TAL SPK
Total	Prep	EPA 3550B		1.86	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 21:43	NMI	TAL SPK
Total	Prep	EPA 3580		0.84	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 01:32	NMI	TAL SPK
Total	Prep	EPA 3050B		0.909	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 16:14	ICP	TAL SPK
Total	Prep	EPA 7471		0.735	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:49	ZZZ	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: GEI-B9 (13-14')

Lab Sample ID: SXH0089-25

Date Collected: 08/11/14 14:10

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.911	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 15:20	CBW	TAL SPK
Total	Prep	EPA 3580		0.890	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 16:19	NMI	TAL SPK
Total	Prep	EPA 3550B		0.976	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 20:32	NMI	TAL SPK
Total	Prep	EPA 3550B		1.79	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 22:05	NMI	TAL SPK
Total	Prep	EPA 3580		0.82	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 01:56	NMI	TAL SPK
Total	Prep	EPA 3050B		0.971	14H0088_P	08/18/14 09:11	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0088	08/27/14 16:18	ICP	TAL SPK
Total	Prep	EPA 7471		0.943	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:52	ZZZ	TAL SPK

Client Sample ID: Duplicate 1

Lab Sample ID: SXH0089-26

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 96.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.994	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 15:43	CBW	TAL SPK
Total	Prep	EPA 3580		0.826	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 16:33	NMI	TAL SPK
Total	Prep	EPA 3550B		0.864	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 20:53	NMI	TAL SPK
Total	Prep	EPA 3550B		1.93	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 22:27	NMI	TAL SPK
Total	Prep	EPA 3580		0.83	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 02:20	NMI	TAL SPK
Total	Prep	EPA 3050B		0.962	14H0122_P	08/21/14 14:35	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0122	08/22/14 12:47	ICP	TAL SPK
Total	Prep	EPA 7471		0.877	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:54	ZZZ	TAL SPK
Total	Prep	Wet Chem		1.00	14H0090_P	08/15/14 12:40	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14H0090	08/18/14 10:06	NI	TAL SPK

Client Sample ID: Duplicate 2

Lab Sample ID: SXH0089-27

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.28	14H0077_P	08/15/14 08:49	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Client Sample ID: Duplicate 2

Lab Sample ID: SXH0089-27

Date Collected: 08/11/14 08:00

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 16:05	CBW	TAL SPK
Total	Prep	EPA 3580		0.992	14H0079_P	08/15/14 10:04	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0079	08/15/14 16:47	NMI	TAL SPK
Total	Prep	EPA 3550B		0.814	14H0093_P	08/19/14 08:36	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0093	08/19/14 21:14	NMI	TAL SPK
Total	Prep	EPA 3550B		1.82	14H0115_P	08/21/14 08:39	NI	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0115	08/21/14 22:50	NMI	TAL SPK
Total	Prep	EPA 3580		0.85	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 02:44	NMI	TAL SPK
Total	Prep	EPA 3050B		1.01	14H0122_P	08/21/14 14:35	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0122	08/27/14 16:22	ICP	TAL SPK
Total	Prep	EPA 7471		0.980	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:56	ZZZ	TAL SPK

Client Sample ID: HWA-MW1-Composite

Lab Sample ID: SXH0089-28

Date Collected: 08/12/14 14:45

Matrix: Soil

Date Received: 08/14/14 10:00

Percent Solids: 94

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.01	14H0077_P	08/15/14 08:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0077	08/15/14 16:27	CBW	TAL SPK
Total	Prep	EPA 3580		0.78	14H0081_P	08/15/14 11:27	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0081	08/16/14 03:08	NMI	TAL SPK
Total	Prep	EPA 3050B		0.917	14H0122_P	08/21/14 14:35	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0122	08/27/14 16:25	ICP	TAL SPK
Total	Prep	EPA 7471		0.758	14H0163_P	08/28/14 07:10	JSP	TAL SPK
Total	Analysis	EPA 7471B		1.00	14H0163	08/28/14 15:59	ZZZ	TAL SPK

Laboratory References:

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Laboratory: TestAmerica Spokane

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

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

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0089

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Methods 5035/8260C		TAL SPK
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8082A	Polychlorinated Biphenyls by EPA Method 8082		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-HCID	Hydrocarbon Identification by NWTPH-HCID		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
EPA 7471B	Total Metals by EPA 6010/7000 Series Methods		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

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11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order # **5XH0089**

CLIENT: GEOENGINEERS			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☒ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. ☐ OTHER Specify: * Turnaround Requests less than standard may incur Rush Charges.						
REPORT TO: SCOTT LATHEN ADDRESS: 523 E. SECOND AVE., SPOKANE, WA 99202			P.O. NUMBER:																
PHONE: 509 363 3125 FAX:			PRESERVATIVE																
PROJECT NAME: Trolley Barn			REQUESTED ANALYSES																
PROJECT NUMBER: 0504-101-01																			
SAMPLED BY: AARON FREDERICK																			
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		NUTR-HCLID	MTCA METALS	EDS 804	PAHs	PCBS	VOL% 0028								MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1. GEI-MW1 (9-10')	8/12/14	1400														S	3	HOLD	
2. GEI-MW1 (12.5-13.5')	8/12/14	1445	X	X	X	X	X	X								S	3		
3. GEI-MW2 (4-5')	8/13/14	1015														S	3	HOLD	
4. GEI-MW2 (12-13')	8/13/14	1110	X	X	X	X	X	X								S	3		
5. GEI-MW3 (2-3')	8/12/14	0800														S	3	HOLD	
6. GEI-MW3 (12-13')	8/12/14	0830	X	X	X	X	X	X								S	3		
7. GEI-B1 (2-3')	8/11/14	1510	X	X	X	X	X	X								S	3		
8. GEI-B1 (12-13')	8/11/14	1540	X	X	X	X	X	X								S	3	HOLD	
9. GEI-B2 (4-5')	8/11/14	1125														S	3	HOLD	
10. GEI-B2 (13-14')	8/11/14	1220	X	X	X	X	X	X								S	3		
RELEASED BY: [Signature]			DATE: 8/13/14			RECEIVED BY: [Signature]			DATE: 8/14/14										
PRINT NAME: AARON FREDERICK			FIRM: GEOENGINEERS			PRINT NAME: Col Stapleton			FIRM: TestAmerica			TIME: 10:00							
RELEASED BY:			DATE:			RECEIVED BY:			DATE:										
PRINT NAME:			FIRM:			PRINT NAME:			FIRM:			TIME:							
ADDITIONAL REMARKS:															TEMP: 21.6	PAGE 1 OF 3			

TAL-1000 (0612)



253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

Work Order #: SXH099

CLIENT:			INVOICE TO:										TURNAROUND REQUEST												
REPORT TO: ADDRESS:													in Business Days *												
PHONE: FAX:													Organic & Inorganic Analyses 10 7 5 4 3 2 1 <1 Petroleum Hydrocarbon Analyses 5 4 3 2 1 <1 OTHER Specify:												
PROJECT NAME: <u>Tecon Brown</u>			P.O. NUMBER:										PRESERVATIVE												
PROJECT NUMBER: <u>0504-101-01</u>			REQUESTED ANALYSES										* Turnaround Requests less than standard may incur Rush Charges												
SAMPLED BY: <u>Aaron Frederick</u>			OTHER										Specify:												
CLIENT SAMPLE IDENTIFICATION			SAMPLING DATE/TIME			MATRIX (W, S, O)										# OF CONT.		LOCATION/ COMMENTS				TA WO ID			
1 GEI-B3 (3S-4.5')			8/11/14 1045													5 3		Hold							
2 GEI-B3 (7-8')			8/11/14 1055			X X X X X X										5 3									
3 GEI-B4 (2-3')			8/11/14 1620													5 3		Hold							
4 GEI-B4 (7-8')			8/11/14 1610			X X X X X X										5 3									
5 GEI-B5 (2-3')			8/11/14 1000													5 3		Hold							
6 GEI-B5 (7-8')			8/11/14 1010			X X X X X X										5 3									
7 GEI-B6 (2-3')			8/11/14 1405													5 3		Hold							
8 GEI-B6 (7-8')			8/11/14 1410													5 3		Hold							
9 GEI-B6 (13-14')			8/11/14 1425			X X X X X X										5 3									
10 GEI-B7 (4-5')			8/13/14 0800													5 3		Hold							
RELEASED BY: <u>[Signature]</u>			DATE: 8/13/14			RECEIVED BY: <u>Cal Stapleton</u>										DATE: 8-14-14									
PRINT NAME: <u>Aaron Frederick</u>			FIRM: <u>GEI</u>			PRINT NAME:										FIRM: <u>TestAmerica</u>									
RELEASED BY:			DATE:			RECEIVED BY:										DATE:									
PRINT NAME:			FIRM:			PRINT NAME:										FIRM:									
ADDITIONAL REMARKS:																		TEMP: <u>46</u>		PAGE 2 OF 3					

TAL-1000 (0612)

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 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
 509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order # **SXH0089**

CLIENT:			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☒ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. ☐ OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.										
REPORT TO: ADDRESS:			P.O. NUMBER:																				
PHONE:			FAX:			PRESERVATIVE																	
PROJECT NAME: Trolley Barn			REQUESTED ANALYSES																				
PROJECT NUMBER: 0504-101-01																							
SAMPLED BY: Aaron Ferozian																							
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		NUM-H	HCD	MTLA	METALS	EDS	DO11	PAT'S	PCB'S	VOL'S	8260						MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID		
1 GEI-B7 (13-14)	8/13/14	0845	X	X	X	X	X	X	X	X	X							S	3				
2 GEI-B8 (7-8')	8/12/14	1140																S	3	HOLD			
3 GEI-B8 (14-15')	8/12/14	1215	X	X	X	X	X	X	X	X	X							S	3				
4 GEI-B9 (7-8')	8/13/14	1400																S	3	HOLD			
5 GEI-B9 (13-14')	8/13/14	1410	X	X	X	X	X	X	X	X	X							S	3				
6 DUPLICATE 1	8/11/14	0800	X	X	X	X	X	X	X	X	X							S	3				
7 DUPLICATE 2	8/12/14	0800	X	X	X	X	X	X	X	X	X							S	3				
8 HWA-MWI-COMPOSITE	8/13/14	0900	X	X							X							S	3				
9																							
10																							
RELEASED BY: Aaron Ferozian			FIRM: GEI			DATE: 8/13/14			TIME: 1500			RECEIVED BY: Pat Stepterson			FIRM: TestAmerica			DATE: 8-14-14			TIME: 10:00		
PRINT NAME: _____			FIRM: _____			DATE: _____			TIME: _____			RECEIVED BY: _____			FIRM: _____			DATE: _____			TIME: _____		
ADDITIONAL REMARKS:																							

TEMP: **4.6**
 PAGE **3** OF **3**

TAL-1000 (0612)

**TestAmerica Spokane
Sample Receipt Form**

Work Order #: SXH0089	Client: GeoEngineers	Project: Trolley Barn		
Date/Time Received: 8-14-14		By: CS		
Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Client ☐ Other: _____				
List Air Bill Number(s) or Attach a photocopy of the Air Bill:				
Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	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: 4.6 °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	Yes	No	NA	Comments
Date/Time: 8-14-14 11:23 By: CS				
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

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: SXH0092

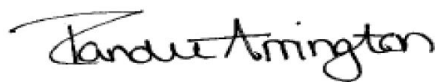
Client Project/Site: 0504-101-01

Client Project Description: Trolley Barn

For:

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

Attn: Scott Lathen



Authorized for release by:
8/28/2014 4:49:49 PM

Randee Arrington, Project Manager
(509)924-9200

Randee.Arrington@testamericainc.com

LINKS

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results through

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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.

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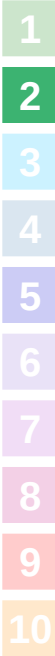


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Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXH0092-01	B8-081214	Water	08/12/14 13:00	08/14/14 10:00

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Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Qualifiers

Semivolatiles

Qualifier	Qualifier Description
RL7	Sample required dilution due to high concentrations of target analyte.

Fuels

Qualifier	Qualifier Description
Q9	Hydrocarbon pattern most closely resembles weathered diesel.
Q7	The heavy oil range organics present are due to hydrocarbons eluting primarily in the diesel range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Client Sample ID: B8-081214

Lab Sample ID: SXH0092-01

Date Collected: 08/12/14 13:00

Matrix: Water

Date Received: 08/14/14 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.500		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
Benzene	0.350		0.200		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
Toluene	0.570		0.500		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
Ethylbenzene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
m,p-Xylene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
o-Xylene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
Xylenes (total)	ND		1.50		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	102		71.2 - 143				08/18/14 07:34	08/18/14 12:01	1.00
1,2-dichloroethane-d4	96.7		70 - 140				08/18/14 07:34	08/18/14 12:01	1.00
Toluene-d8	101		74.1 - 135				08/18/14 07:34	08/18/14 12:01	1.00
4-bromofluorobenzene	114		68.7 - 141				08/18/14 07:34	08/18/14 12:01	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	1200		100		ug/L		08/18/14 07:34	08/18/14 12:01	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	114		68.7 - 141				08/18/14 07:34	08/18/14 12:01	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1221	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1232	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1242	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1248	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1254	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1260	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
PCB-1268	ND		0.195		ug/L		08/26/14 13:42	08/26/14 17:37	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	59.2		4.19 - 156				08/26/14 13:42	08/26/14 17:37	1.00
Decachlorobiphenyl	56.6		15.7 - 106				08/26/14 13:42	08/26/14 17:37	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	14.5		0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
2-Methylnaphthalene	0.350		0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
1-Methylnaphthalene	29.1		0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Acenaphthylene	0.778		0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Acenaphthene	0.642		0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Fluorene	0.447		0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Phenanthrene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Anthracene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Fluoranthene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Pyrene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Benzo (a) anthracene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Chrysene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Client Sample ID: B8-081214

Lab Sample ID: SXH0092-01

Date Collected: 08/12/14 13:00

Matrix: Water

Date Received: 08/14/14 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (b) fluoranthene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Benzo (k) fluoranthene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Benzo (a) pyrene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Indeno (1,2,3-cd) pyrene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Dibenzo (a,h) anthracene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00
Benzo (ghi) perylene	ND	RL7	0.195		ug/L		08/15/14 13:17	08/15/14 17:35	2.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	114		32.7 - 135	08/15/14 13:17	08/15/14 17:35	2.00
2-FBP	79.4		44.3 - 120	08/15/14 13:17	08/15/14 17:35	2.00
p-Terphenyl-d14	102		59.5 - 154	08/15/14 13:17	08/15/14 17:35	2.00

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	20.9	Q9	0.259		mg/L		08/20/14 08:33	08/20/14 14:33	1.00
Heavy Oil Range Hydrocarbons	0.766	Q7	0.432		mg/L		08/20/14 08:33	08/20/14 14:33	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	110		50 - 150	08/20/14 08:33	08/20/14 14:33	1.00
n-Triacontane-d62	105		50 - 150	08/20/14 08:33	08/20/14 14:33	1.00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.62		mg/L		08/20/14 10:07	08/21/14 10:52	1.0
Diesel Range Hydrocarbons	18		0.62		mg/L		08/20/14 10:07	08/21/14 10:52	1.0
Heavy Oil Range Hydrocarbons	1.0		0.62		mg/L		08/20/14 10:07	08/21/14 10:52	1.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	92.7		50 - 150	08/20/14 10:07	08/21/14 10:52	1.0
2-FBP	107		50 - 150	08/20/14 10:07	08/21/14 10:52	1.0
p-Terphenyl-d14	120		50 - 150	08/20/14 10:07	08/21/14 10:52	1.0

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/L		08/18/14 09:35	08/27/14 20:18	1.00
Cadmium	ND		0.00400		mg/L		08/18/14 09:35	08/27/14 20:18	1.00
Chromium	0.0368		0.00800		mg/L		08/18/14 09:35	08/27/14 20:18	1.00
Lead	0.0277		0.0140		mg/L		08/18/14 09:35	08/21/14 14:03	1.00

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		08/21/14 08:45	08/21/14 15:04	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

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

Lab Sample ID: 14H0084-BLK1

Matrix: Water

Analysis Batch: 14H0084

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0084_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.500		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
Benzene	ND		0.200		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
Toluene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
Ethylbenzene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
m,p-Xylene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
o-Xylene	ND		0.500		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
Naphthalene	ND		2.00		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
1,2-Dibromoethane	ND		1.00		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
Xylenes (total)	ND		1.50		ug/L		08/18/14 07:34	08/18/14 10:08	1.00
Hexane	ND		1.00		ug/L		08/18/14 07:34	08/18/14 10:08	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101		71.2 - 143	08/18/14 07:34	08/18/14 10:08	1.00
1,2-dichloroethane-d4	103		70 - 140	08/18/14 07:34	08/18/14 10:08	1.00
Toluene-d8	101		74.1 - 135	08/18/14 07:34	08/18/14 10:08	1.00
4-bromofluorobenzene	102		68.7 - 141	08/18/14 07:34	08/18/14 10:08	1.00

Lab Sample ID: 14H0084-BS1

Matrix: Water

Analysis Batch: 14H0084

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0084_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	10.0	11.2		ug/L		112	80 - 128
Benzene	10.0	10.4		ug/L		104	80 - 122
Toluene	10.0	11.0		ug/L		110	80 - 123
Ethylbenzene	10.0	10.6		ug/L		106	80 - 120
m,p-Xylene	10.0	10.8		ug/L		108	80 - 120
o-Xylene	10.0	11.2		ug/L		112	80 - 120
Naphthalene	10.0	9.86		ug/L		98.6	62.8 - 132
Xylenes (total)	20.0	21.9		ug/L		110	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	103		71.2 - 143
1,2-dichloroethane-d4	107		70 - 140
Toluene-d8	101		74.1 - 135
4-bromofluorobenzene	99.5		68.7 - 141

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

Lab Sample ID: 14H0084-BLK1

Matrix: Water

Analysis Batch: 14H0084

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0084_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		08/18/14 07:34	08/18/14 10:08	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

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

Lab Sample ID: 14H0084-BLK1

Matrix: Water

Analysis Batch: 14H0084

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0084_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	102		68.7 - 141	08/18/14 07:34	08/18/14 10:08	1.00

Lab Sample ID: 14H0084-BS2

Matrix: Water

Analysis Batch: 14H0084

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0084_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	1000	904		ug/L		90.4	80 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-bromofluorobenzene	99.0		68.7 - 141				

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Lab Sample ID: 14H0149-BLK1

Matrix: Water

Analysis Batch: 14H0149

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0149_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1221	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1232	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1242	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1248	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1254	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1260	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
PCB-1268	ND		0.200		ug/L		08/26/14 13:42	08/26/14 16:34	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	71.6		4.19 - 156				08/26/14 13:42	08/26/14 16:34	1.00
Decachlorobiphenyl	94.7		15.7 - 106				08/26/14 13:42	08/26/14 16:34	1.00

Lab Sample ID: 14H0149-BS1

Matrix: Water

Analysis Batch: 14H0149

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0149_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.200	0.235		ug/L		118	23.1 - 140
PCB-1260	0.200	0.216		ug/L		108	21.9 - 139
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
TCX	83.7		4.19 - 156				
Decachlorobiphenyl	101		15.7 - 106				

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 14H0149-MS1

Matrix: Water

Analysis Batch: 14H0149

Client Sample ID: B8-081214

Prep Type: Total

Prep Batch: 14H0149_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		0.200	0.166		ug/L		83.0	50 - 150
PCB-1260	ND		0.200	0.142		ug/L		71.3	50 - 150
Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits						
TCX	66.4		4.19 - 156						
Decachlorobiphenyl	55.9		15.7 - 106						

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

Lab Sample ID: 14H0082-BLK1

Matrix: Water

Analysis Batch: 14H0082

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0082_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
2-Methylnaphthalene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
1-Methylnaphthalene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Acenaphthylene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Acenaphthene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Fluorene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Phenanthrene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Anthracene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Fluoranthene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Pyrene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Benzo (a) anthracene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Chrysene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Benzo (b) fluoranthene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Benzo (k) fluoranthene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Benzo (a) pyrene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Indeno (1,2,3-cd) pyrene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Dibenzo (a,h) anthracene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Benzo (ghi) perylene	ND		0.200		ug/L		08/15/14 13:17	08/15/14 16:50	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5	87.6		32.7 - 135	08/15/14 13:17	08/15/14 16:50	1.00			
2-FBP	83.0		44.3 - 120	08/15/14 13:17	08/15/14 16:50	1.00			
p-Terphenyl-d14	146		59.5 - 154	08/15/14 13:17	08/15/14 16:50	1.00			

Lab Sample ID: 14H0082-BS1

Matrix: Water

Analysis Batch: 14H0082

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0082_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	4.00	2.64		ug/L		66.0	27.8 - 143
Fluorene	4.00	2.80		ug/L		70.0	59.2 - 120
Chrysene	4.00	3.76		ug/L		94.0	69.1 - 122
Indeno (1,2,3-cd) pyrene	4.00	3.72		ug/L		93.0	56.1 - 135

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

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

Lab Sample ID: 14H0082-BS1

Matrix: Water

Analysis Batch: 14H0082

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0082_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	73.8		32.7 - 135
2-FBP	73.6		44.3 - 120
p-Terphenyl-d14	111		59.5 - 154

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

Lab Sample ID: 14H0100-BLK1

Matrix: Water

Analysis Batch: 14H0100

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0100_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		08/20/14 08:33	08/20/14 13:42	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/L		08/20/14 08:33	08/20/14 13:42	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	107		50 - 150	08/20/14 08:33	08/20/14 13:42	1.00
n-Triacontane-d62	97.0		50 - 150	08/20/14 08:33	08/20/14 13:42	1.00

Lab Sample ID: 14H0100-BS1

Matrix: Water

Analysis Batch: 14H0100

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0100_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Hydrocarbons	3.20	2.60		mg/L		81.2	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	106		50 - 150
n-Triacontane-d62	94.2		50 - 150

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Lab Sample ID: 14H0106-BLK1

Matrix: Water

Analysis Batch: 14H0106

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0106_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.63		mg/L		08/20/14 10:07	08/21/14 10:27	1.00
Diesel Range Hydrocarbons	ND		0.63		mg/L		08/20/14 10:07	08/21/14 10:27	1.00
Heavy Oil Range Hydrocarbons	ND		0.63		mg/L		08/20/14 10:07	08/21/14 10:27	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	83.4		50 - 150	08/20/14 10:07	08/21/14 10:27	1.00
2-FBP	96.1		50 - 150	08/20/14 10:07	08/21/14 10:27	1.00
p-Terphenyl-d14	113		50 - 150	08/20/14 10:07	08/21/14 10:27	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Lab Sample ID: 14H0089-BLK1

Matrix: Water

Analysis Batch: 14H0089

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0089_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0200		mg/L		08/18/14 09:35	08/19/14 09:53	1.00
Cadmium	ND		0.00400		mg/L		08/18/14 09:35	08/19/14 09:53	1.00
Chromium	ND		0.00800		mg/L		08/18/14 09:35	08/19/14 09:53	1.00
Lead	ND		0.0140		mg/L		08/18/14 09:35	08/19/14 09:53	1.00

Lab Sample ID: 14H0089-BS1

Matrix: Water

Analysis Batch: 14H0089

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0089_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.998		mg/L		99.8	85 - 115
Cadmium	1.00	0.993		mg/L		99.3	85 - 115
Chromium	1.00	1.02		mg/L		102	85 - 115
Lead	1.00	0.992		mg/L		99.2	85 - 115

Lab Sample ID: 14H0089-MS1

Matrix: Water

Analysis Batch: 14H0089

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 14H0089_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		1.00	1.04		mg/L		104	70 - 130
Cadmium	0.00334		1.00	1.02		mg/L		101	70 - 130
Chromium	ND		1.00	0.989		mg/L		98.9	75 - 125
Lead	ND		1.00	0.937		mg/L		93.7	70 - 130

Lab Sample ID: 14H0089-MSD1

Matrix: Water

Analysis Batch: 14H0089

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 14H0089_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		1.00	1.07		mg/L		107	70 - 130	3.39	20
Cadmium	0.00334		1.00	1.02		mg/L		101	70 - 130	0.0156	20
Chromium	ND		1.00	0.993		mg/L		99.3	75 - 125	0.360	20
Lead	ND		1.00	0.969		mg/L		96.9	70 - 130	3.43	20

Lab Sample ID: 14H0089-DUP1

Matrix: Water

Analysis Batch: 14H0089

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14H0089_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND		ND		mg/L			20
Cadmium	0.00334		0.00288		mg/L		15.1	20
Chromium	ND		ND		mg/L			20
Lead	ND		ND		mg/L			20

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Lab Sample ID: 14H0116-BLK1

Matrix: Water

Analysis Batch: 14H0116

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14H0116_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		08/21/14 08:45	08/21/14 14:32	1.00

Lab Sample ID: 14H0116-BS1

Matrix: Water

Analysis Batch: 14H0116

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14H0116_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	1.85		ug/L		92.5	85 - 115

Lab Sample ID: 14H0116-MS1

Matrix: Water

Analysis Batch: 14H0116

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 14H0116_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		2.00	2.20		ug/L		110	70 - 130

Lab Sample ID: 14H0116-MSD1

Matrix: Water

Analysis Batch: 14H0116

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 14H0116_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		2.00	2.35		ug/L		118	70 - 130	6.59	18.2

Lab Sample ID: 14H0116-DUP1

Matrix: Water

Analysis Batch: 14H0116

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14H0116_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Mercury	ND		ND		ug/L			17.1

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Client Sample ID: B8-081214

Date Collected: 08/12/14 13:00

Date Received: 08/14/14 10:00

Lab Sample ID: SXH0092-01

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14H0084_P	08/18/14 07:34	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0084	08/18/14 12:01	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14H0084_P	08/18/14 07:34	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0084	08/18/14 12:01	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		1.95	14H0149_P	08/26/14 13:42	NI	TAL SPK
Total	Analysis	EPA 8082A		1.00	14H0149	08/26/14 17:37	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.973	14H0082_P	08/15/14 13:17	MS	TAL SPK
Total	Analysis	EPA 8270D		2.00	14H0082	08/15/14 17:35	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series	RE1	1.08	14H0100_P	08/20/14 08:33	NI	TAL SPK
Total	Analysis	NWTPH-Dx	RE1	1.00	14H0100	08/20/14 14:33	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.98	14H0106_P	08/20/14 10:07	NI	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14H0106	08/21/14 10:52	NMI	TAL SPK
Total	Prep	EPA 3005A		1.00	14H0089_P	08/18/14 09:35	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	14H0089	08/21/14 14:03	ICP	TAL SPK
Total	Prep	EPA 3005A		1.00	14H0089_P	08/18/14 09:35	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	14H0089	08/27/14 20:18	ICP	TAL SPK
Total	Prep	EPA 200 Series		1.00	14H0116_P	08/21/14 08:45	JSP	TAL SPK
Total	Analysis	EPA 245.1		1.00	14H0116	08/21/14 15:04	ZZZ	TAL SPK

Laboratory References:

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Laboratory: TestAmerica Spokane

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

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

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXH0092

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8082A	Polychlorinated Biphenyls by EPA Method 8082		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-HCID	Hydrocarbon Identification by NWTPH-HCID		TAL SPK
EPA 200.7	Total Metals by EPA 200 Series Methods		TAL SPK
EPA 245.1	Total Metals by EPA 200 Series Methods		TAL SPK

Protocol References:

Laboratory References:

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

CHAIN OF CUSTODY REPORT

Work Order #: **SXH0092**

CLIENT: GEENGINEERS				INVOICE TO:				TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☒ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. ☐ OTHER Specify: * Turnaround Requests less than standard may incur Rush Charges.							
REPORT TO: SCOTT LATHEN				P.O. NUMBER:											
ADDRESS: 523 E. SECOND AVE. SPOKANE, WA 99202															
PHONE: 509-363-3125 FAX:															
PROJECT NAME: Trolley Barn				PRESERVATIVE											
PROJECT NUMBER: 0504-101-01															
SAMPLED BY: AARON FREDERICK				REQUESTED ANALYSES											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NUMPH GX	NUMTH DX	VOL	NUMPH H-10	NUMTH H-10	NUMPH 9270	NUMTH 9270	NUMPH 8082	NUMTH 8082	NUMPH METALS	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 B8-081214	8/12/14											W	10		
2															
3															
4															
5															
6															
7															
8															
9															
10															
RELEASED BY: AARON FREDERICK				DATE: 8/13/14				RECEIVED BY: Cat Stapleton				DATE: 8/14/14			
PRINT NAME: [Signature]				FIRM: GEI				PRINT NAME: [Signature]				FIRM: TestAmerica			
RELEASED BY:				DATE:				RECEIVED BY:				DATE:			
PRINT NAME:				FIRM:				PRINT NAME:				FIRM:			
ADDITIONAL REMARKS:															
														TEMP:	PAGE 1 OF 1

**TestAmerica Spokane
Sample Receipt Form**

Work Order #: SXH00912	Client: GeoEngineers	Project: Trolley Barn		
Date/Time Received: 8/14/14 10:00	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: 1.1 °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	Yes	No	NA	Comments
Date/Time: 8/14/14 12:00 By: CS				
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

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: SXI0111

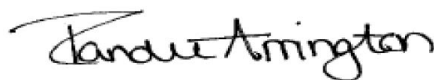
Client Project/Site: 0504-101-01

Client Project Description: Trolley Barn

For:

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

Attn: Scott Lathen



Authorized for release by:
10/3/2014 9:21:18 AM

Randee Arrington, Project Manager
(509)924-9200

Randee.Arrington@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.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.

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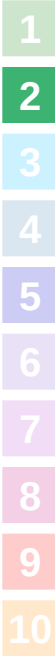


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QC Sample Results	23
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Method Summary	39
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Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXI0111-01	GEI-MW-1-091614	Water	09/16/14 10:19	09/17/14 08:25
SXI0111-02	GEI-MW-2-091614	Water	09/16/14 12:18	09/17/14 08:25
SXI0111-03	GEI-MW-3-091614	Water	09/16/14 09:13	09/17/14 08:25
SXI0111-04	HWA-MW-1-091614	Water	09/16/14 11:16	09/17/14 08:25
SXI0111-05	MW-Dup-091614	Water	09/16/14 08:00	09/17/14 08:25
SXI0131-01	GEI-MW-1-091614	Water	09/16/14 10:19	09/19/14 09:50
SXI0131-02	GEI-MW-2-091614	Water	09/16/14 12:18	09/19/14 09:50
SXI0131-03	GEI-MW-3-091614	Water	09/16/14 09:13	09/19/14 09:50
SXI0131-04	HWA-MW-1-091614	Water	09/16/14 11:16	09/19/14 09:50
SXI0131-05	MW-Dup-091614	Water	09/16/14 08:00	09/19/14 09:50

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Qualifiers

Fuels

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

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0111-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/17/14 08:25

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.58		0.200		mg/L		09/17/14 10:00	09/17/14 11:47	1.00
Sulfate	13.6		0.500		mg/L		09/17/14 10:00	09/17/14 11:47	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	80.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0111-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/17/14 08:25

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.34		0.200		mg/L		09/17/14 10:00	09/17/14 12:31	1.00
Sulfate	10.8		0.500		mg/L		09/17/14 10:00	09/17/14 12:31	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	85.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0111-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/17/14 08:25

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	1.05		0.200		mg/L		09/17/14 10:00	09/17/14 12:02	1.00
Sulfate	10.7		0.500		mg/L		09/17/14 10:00	09/17/14 12:02	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	125		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0111-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/17/14 08:25

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.12		0.200		mg/L		09/17/14 10:00	09/17/14 12:16	1.00
Sulfate	10.6		0.500		mg/L		09/17/14 10:00	09/17/14 12:16	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	90.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: MW-Dup-091614

Lab Sample ID: SXI0111-05

Date Collected: 09/16/14 08:00

Matrix: Water

Date Received: 09/17/14 08:25

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.26		0.200		mg/L		09/17/14 10:00	09/17/14 12:45	1.00
Sulfate	10.8		0.500		mg/L		09/17/14 10:00	09/17/14 12:45	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	85.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0131-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0131-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:28	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.5		71.2 - 143	09/23/14 07:49	09/24/14 15:28	1.00
1,2-dichloroethane-d4	90.2		70 - 140	09/23/14 07:49	09/24/14 15:28	1.00
Toluene-d8	105		74.1 - 135	09/23/14 07:49	09/24/14 15:28	1.00
4-bromofluorobenzene	102		68.7 - 141	09/23/14 07:49	09/24/14 15:28	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 15:28	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	102		68.7 - 141	09/23/14 07:49	09/24/14 15:28	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00
PCB-1221	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0131-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00
PCB-1242	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00
PCB-1248	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00
PCB-1254	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00
PCB-1260	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00
PCB-1268	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 17:16	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	37.8		4.19 - 156	09/24/14 13:46	09/24/14 17:16	1.00
Decachlorobiphenyl	44.4		15.7 - 106	09/24/14 13:46	09/24/14 17:16	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
2-Methylnaphthalene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
1-Methylnaphthalene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Acenaphthylene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Acenaphthene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Fluorene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Phenanthrene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Anthracene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Fluoranthene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Pyrene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Benzo (a) anthracene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Chrysene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Benzo (b) fluoranthene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Benzo (k) fluoranthene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Benzo (a) pyrene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Dibenzo (a,h) anthracene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00
Benzo (ghi) perylene	ND		0.0930		ug/L		09/23/14 08:20	09/24/14 23:57	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	90.6		32.7 - 135	09/23/14 08:20	09/24/14 23:57	1.00
2-FBP	84.1		44.3 - 120	09/23/14 08:20	09/24/14 23:57	1.00
p-Terphenyl-d14	100		59.5 - 154	09/23/14 08:20	09/24/14 23:57	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		0.230		mg/L		09/24/14 08:30	09/24/14 15:42	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.383		mg/L		09/24/14 08:30	09/24/14 15:42	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90.0		50 - 150	09/24/14 08:30	09/24/14 15:42	1.00
n-Triacontane-d62	107		50 - 150	09/24/14 08:30	09/24/14 15:42	1.00

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.0422		0.0100		mg/L		09/30/14 10:40	10/01/14 18:49	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0131-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		09/24/14 08:52	09/24/14 15:55	1.00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:30	1
Cadmium	ND		0.00100		mg/L		09/26/14 13:54	09/30/14 17:30	1
Chromium	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:30	1
Lead	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:30	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L		09/30/14 12:47	09/30/14 12:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	109		62 - 124	09/30/14 12:47	09/30/14 12:47	1

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0131-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Chloroform	1.21		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0131-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.1		71.2 - 143				09/23/14 07:49	09/24/14 15:50	1.00
1,2-dichloroethane-d4	93.9		70 - 140				09/23/14 07:49	09/24/14 15:50	1.00
Toluene-d8	102		74.1 - 135				09/23/14 07:49	09/24/14 15:50	1.00
4-bromofluorobenzene	104		68.7 - 141				09/23/14 07:49	09/24/14 15:50	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0131-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 15:50	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	104		68.7 - 141				09/23/14 07:49	09/24/14 15:50	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1221	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1232	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1242	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1248	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1254	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1260	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
PCB-1268	ND		0.0983		ug/L		09/24/14 13:46	09/24/14 17:38	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	36.6		4.19 - 156				09/24/14 13:46	09/24/14 17:38	1.00
Decachlorobiphenyl	45.9		15.7 - 106				09/24/14 13:46	09/24/14 17:38	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0961		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
2-Methylnaphthalene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
1-Methylnaphthalene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Acenaphthylene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Acenaphthene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Fluorene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Phenanthrene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Anthracene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Fluoranthene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Pyrene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Benzo (a) anthracene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Chrysene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Benzo (b) fluoranthene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Benzo (k) fluoranthene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Benzo (a) pyrene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Dibenzo (a,h) anthracene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Benzo (ghi) perylene	ND		0.0897		ug/L		09/23/14 08:20	09/25/14 00:22	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	94.6		32.7 - 135				09/23/14 08:20	09/25/14 00:22	1.00
2-FBP	84.3		44.3 - 120				09/23/14 08:20	09/25/14 00:22	1.00
p-Terphenyl-d14	86.7		59.5 - 154				09/23/14 08:20	09/25/14 00:22	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		0.232		mg/L		09/24/14 08:30	09/24/14 16:06	1.00
Heavy Oil Range Hydrocarbons	ND		0.386		mg/L		09/24/14 08:30	09/24/14 16:06	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0131-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/19/14 09:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90.2		50 - 150	09/24/14 08:30	09/24/14 16:06	1.00
<i>n</i> -Triacontane-d62	101		50 - 150	09/24/14 08:30	09/24/14 16:06	1.00

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0100		mg/L		09/30/14 10:40	10/01/14 18:55	1.00

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		09/24/14 08:52	09/24/14 15:57	1.00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:35	1
Cadmium	ND		0.00100		mg/L		09/26/14 13:54	09/30/14 17:35	1
Chromium	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:35	1
Lead	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:35	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L		09/30/14 12:50	09/30/14 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	109		62 - 124	09/30/14 12:50	09/30/14 12:50	1

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0131-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Chloroform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0131-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:13	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0131-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/19/14 09:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.9		71.2 - 143	09/23/14 07:49	09/24/14 16:13	1.00
1,2-dichloroethane-d4	95.1		70 - 140	09/23/14 07:49	09/24/14 16:13	1.00
Toluene-d8	102		74.1 - 135	09/23/14 07:49	09/24/14 16:13	1.00
4-bromofluorobenzene	101		68.7 - 141	09/23/14 07:49	09/24/14 16:13	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	128		100		ug/L		09/23/14 07:49	09/24/14 16:13	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	101		68.7 - 141	09/23/14 07:49	09/24/14 16:13	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1221	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1232	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1242	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1248	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1254	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1260	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00
PCB-1268	ND		0.0967		ug/L		09/24/14 13:46	09/24/14 17:59	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	38.0		4.19 - 156	09/24/14 13:46	09/24/14 17:59	1.00
Decachlorobiphenyl	40.8		15.7 - 106	09/24/14 13:46	09/24/14 17:59	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
2-Methylnaphthalene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
1-Methylnaphthalene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Acenaphthylene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Acenaphthene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Fluorene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Phenanthrene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Anthracene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Fluoranthene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Pyrene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Benzo (a) anthracene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Chrysene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Benzo (b) fluoranthene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Benzo (k) fluoranthene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Benzo (a) pyrene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Dibenzo (a,h) anthracene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00
Benzo (ghi) perylene	ND		0.0901		ug/L		09/23/14 08:20	09/25/14 00:46	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	92.3		32.7 - 135	09/23/14 08:20	09/25/14 00:46	1.00
2-FBP	86.3		44.3 - 120	09/23/14 08:20	09/25/14 00:46	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0131-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/19/14 09:50

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	84.4		59.5 - 154	09/23/14 08:20	09/25/14 00:46	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	0.266		0.231		mg/L		09/24/14 08:30	09/24/14 16:30	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.386		mg/L		09/24/14 08:30	09/24/14 16:30	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94.0		50 - 150	09/24/14 08:30	09/24/14 16:30	1.00
n-Triacontane-d62	107		50 - 150	09/24/14 08:30	09/24/14 16:30	1.00

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.986		0.0100		mg/L		09/30/14 10:40	10/01/14 19:16	1.00

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		09/24/14 08:52	09/24/14 16:00	1.00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:41	1
Cadmium	ND		0.00100		mg/L		09/26/14 13:54	09/30/14 17:41	1
Chromium	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:41	1
Lead	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:41	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.00508		0.00500		mg/L		09/30/14 12:54	09/30/14 12:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	113		62 - 124	09/30/14 12:54	09/30/14 12:54	1

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0131-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0131-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/19/14 09:50

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		09/23/14 07:49	09/24/14 16:35	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Chloroform	1.10		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0131-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.6		71.2 - 143				09/23/14 07:49	09/24/14 16:35	1.00
1,2-dichloroethane-d4	94.8		70 - 140				09/23/14 07:49	09/24/14 16:35	1.00
Toluene-d8	103		74.1 - 135				09/23/14 07:49	09/24/14 16:35	1.00
4-bromofluorobenzene	103		68.7 - 141				09/23/14 07:49	09/24/14 16:35	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 16:35	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	103		68.7 - 141				09/23/14 07:49	09/24/14 16:35	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1221	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1232	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1242	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1248	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1254	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1260	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
PCB-1268	ND		0.0962		ug/L		09/24/14 13:46	09/25/14 09:08	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	49.6		4.19 - 156				09/24/14 13:46	09/25/14 09:08	1.00
Decachlorobiphenyl	50.8		15.7 - 106				09/24/14 13:46	09/25/14 09:08	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
2-Methylnaphthalene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
1-Methylnaphthalene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Acenaphthylene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Acenaphthene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Fluorene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Phenanthrene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Anthracene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Fluoranthene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Pyrene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Benzo (a) anthracene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Chrysene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0131-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (b) fluoranthene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Benzo (k) fluoranthene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Benzo (a) pyrene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Dibenzo (a,h) anthracene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00
Benzo (ghi) perylene	ND		0.0904		ug/L		09/23/14 08:20	09/25/14 01:11	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	89.2		32.7 - 135	09/23/14 08:20	09/25/14 01:11	1.00
2-FBP	79.8		44.3 - 120	09/23/14 08:20	09/25/14 01:11	1.00
p-Terphenyl-d14	91.6		59.5 - 154	09/23/14 08:20	09/25/14 01:11	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	ND		0.310		mg/L		09/24/14 08:30	09/24/14 16:53	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.517		mg/L		09/24/14 08:30	09/24/14 16:53	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86.7		50 - 150	09/24/14 08:30	09/24/14 16:53	1.00
n-Triacontane-d62	99.5		50 - 150	09/24/14 08:30	09/24/14 16:53	1.00

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.0337		0.0100		mg/L		09/30/14 10:40	10/01/14 19:21	1.00

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		09/24/14 08:52	09/24/14 16:02	1.00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:56	1
Cadmium	ND		0.00100		mg/L		09/26/14 13:54	09/30/14 17:56	1
Chromium	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 17:56	1

Method: 200.8 - Metals (ICP/MS) - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00200		mg/L		09/26/14 13:54	10/01/14 19:07	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L		09/30/14 13:10	09/30/14 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	103		62 - 124	09/30/14 13:10	09/30/14 13:10	1

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: MW-Dup-091614

Lab Sample ID: SXI0131-05

Date Collected: 09/16/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Chloromethane	ND		3.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Vinyl chloride	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Bromomethane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Chloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Carbon disulfide	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Methylene chloride	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Acetone	ND		25.0		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Bromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Chloroform	1.16		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
2-Butanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Hexane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Benzene	ND		0.200		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
tert-Butanol	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Trichloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Dibromomethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Bromodichloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Toluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Tetrachloroethene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Dibromochloromethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
2-Hexanone	ND		10.0		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Ethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Chlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
m,p-Xylene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
o-Xylene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Styrene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Bromoform	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Isopropylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: MW-Dup-091614

Lab Sample ID: SXI0131-05

Date Collected: 09/16/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Bromobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
n-Butylbenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
Naphthalene	ND		2.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/23/14 07:49	09/24/14 16:58	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.3		71.2 - 143	09/23/14 07:49	09/24/14 16:58	1.00
1,2-dichloroethane-d4	95.3		70 - 140	09/23/14 07:49	09/24/14 16:58	1.00
Toluene-d8	104		74.1 - 135	09/23/14 07:49	09/24/14 16:58	1.00
4-bromofluorobenzene	102		68.7 - 141	09/23/14 07:49	09/24/14 16:58	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 16:58	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	102		68.7 - 141	09/23/14 07:49	09/24/14 16:58	1.00

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1221	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1232	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1242	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1248	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1254	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1260	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00
PCB-1268	ND		0.0964		ug/L		09/24/14 13:46	09/24/14 18:41	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
TCX	39.3		4.19 - 156	09/24/14 13:46	09/24/14 18:41	1.00
Decachlorobiphenyl	48.4		15.7 - 106	09/24/14 13:46	09/24/14 18:41	1.00

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: MW-Dup-091614

Lab Sample ID: SXI0131-05

Date Collected: 09/16/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
2-Methylnaphthalene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
1-Methylnaphthalene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Acenaphthylene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Acenaphthene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Fluorene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Phenanthrene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Anthracene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Fluoranthene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Pyrene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Benzo (a) anthracene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Chrysene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Benzo (b) fluoranthene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Benzo (k) fluoranthene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Benzo (a) pyrene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Dibenzo (a,h) anthracene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00
Benzo (ghi) perylene	ND		0.0898		ug/L		09/23/14 08:20	09/25/14 01:35	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	93.5		32.7 - 135	09/23/14 08:20	09/25/14 01:35	1.00
2-FBP	88.0		44.3 - 120	09/23/14 08:20	09/25/14 01:35	1.00
p-Terphenyl-d14	80.6		59.5 - 154	09/23/14 08:20	09/25/14 01:35	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		0.228		mg/L		09/24/14 08:30	09/24/14 17:17	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.381		mg/L		09/24/14 08:30	09/24/14 17:17	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90.1		50 - 150	09/24/14 08:30	09/24/14 17:17	1.00
n-Triacontane-d62	106		50 - 150	09/24/14 08:30	09/24/14 17:17	1.00

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0100		mg/L		09/30/14 10:40	10/01/14 19:24	1.00

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		09/24/14 08:52	09/24/14 16:04	1.00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 18:01	1
Cadmium	ND		0.00100		mg/L		09/26/14 13:54	09/30/14 18:01	1
Chromium	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 18:01	1

Method: 200.8 - Metals (ICP/MS) - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00200		mg/L		09/26/14 13:54	10/01/14 19:12	1

TestAmerica Spokane

Client Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: MW-Dup-091614

Lab Sample ID: SXI0131-05

Date Collected: 09/16/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L		09/30/14 13:15	09/30/14 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Acetylene (Surr)	105		62 - 124				09/30/14 13:15	09/30/14 13:15	1

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

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

Lab Sample ID: 14I0134-BLK1

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0134_P

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

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

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

Lab Sample ID: 14I0134-BLK1

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0134_P

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

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

Lab Sample ID: 14I0134-BS1

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0134_P

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

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

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

Lab Sample ID: 14I0134-BS1

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0134_P

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

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

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

Lab Sample ID: 14I0134-BS1

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0134_P

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

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

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

Lab Sample ID: 14I0134-BLK1

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/23/14 07:49	09/24/14 09:49	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	103		68.7 - 141				09/23/14 07:49	09/24/14 09:49	1.00

Lab Sample ID: 14I0134-BS2

Matrix: Water

Analysis Batch: 14I0134

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0134_P

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Hydrocarbons			1000	875		ug/L		87.5	80 - 120		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
4-bromofluorobenzene	97.3		68.7 - 141								

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082

Lab Sample ID: 14I0153-BLK1

Matrix: Water

Analysis Batch: 14I0153

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0153_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
PCB-1221	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
PCB-1232	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
PCB-1242	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
PCB-1248	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method: EPA 8082A - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 14I0153-BLK1

Matrix: Water

Analysis Batch: 14I0153

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0153_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
PCB-1260	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
PCB-1268	ND		0.100		ug/L		09/24/14 13:46	09/24/14 16:34	1.00
Surrogate	%Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
TCX	35.5		4.19 - 156				09/24/14 13:46	09/24/14 16:34	1.00
Decachlorobiphenyl	43.9		15.7 - 106				09/24/14 13:46	09/24/14 16:34	1.00

Lab Sample ID: 14I0153-BS1

Matrix: Water

Analysis Batch: 14I0153

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0153_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2.00	1.76		ug/L		88.1	23.1 - 140
PCB-1260	2.00	1.71		ug/L		85.3	21.9 - 139
Surrogate	%Recovery	LCS Qualifier	Limits				
TCX	38.6		4.19 - 156				
Decachlorobiphenyl	34.5		15.7 - 106				

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

Lab Sample ID: 14I0135-BLK1

Matrix: Water

Analysis Batch: 14I0135

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0135_P

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

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

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

Lab Sample ID: 14I0135-BLK1

Matrix: Water

Analysis Batch: 14I0135

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0135_P

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

Lab Sample ID: 14I0135-BS1

Matrix: Water

Analysis Batch: 14I0135

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0135_P

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

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

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

Lab Sample ID: 14I0145-BLK1

Matrix: Water

Analysis Batch: 14I0145

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0145_P

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

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

Lab Sample ID: 14I0145-BS1

Matrix: Water

Analysis Batch: 14I0145

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0145_P

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

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

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Lab Sample ID: 14I0196-BLK1

Matrix: Water

Analysis Batch: 14I0196

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 14I0196_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0100		mg/L		09/30/14 10:40	10/01/14 18:47	1.00

Lab Sample ID: 14I0196-BS1

Matrix: Water

Analysis Batch: 14I0196

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 14I0196_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1.00	1.01		mg/L		101	85 - 115

Lab Sample ID: 14I0196-MS1

Matrix: Water

Analysis Batch: 14I0196

Client Sample ID: GEI-MW-2-091614

Prep Type: Dissolved

Prep Batch: 14I0196_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	ND		1.00	1.01		mg/L		101	75 - 125

Lab Sample ID: 14I0196-MSD1

Matrix: Water

Analysis Batch: 14I0196

Client Sample ID: GEI-MW-2-091614

Prep Type: Dissolved

Prep Batch: 14I0196_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	ND		1.00	1.02		mg/L		102	75 - 125	0.950	20

Lab Sample ID: 14I0196-DUP1

Matrix: Water

Analysis Batch: 14I0196

Client Sample ID: GEI-MW-1-091614

Prep Type: Dissolved

Prep Batch: 14I0196_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	0.0422		0.0297	R4	mg/L				34.9	20

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods

Lab Sample ID: 14I0148-BLK1

Matrix: Water

Analysis Batch: 14I0148

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0148_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.200		ug/L		09/24/14 08:52	09/24/14 15:17	1.00

Lab Sample ID: 14I0148-BS1

Matrix: Water

Analysis Batch: 14I0148

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0148_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	2.12		ug/L		106	85 - 115

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method: EPA 245.1 - Total Metals by EPA 200 Series Methods (Continued)

Lab Sample ID: 14I0148-MS1

Matrix: Water

Analysis Batch: 14I0148

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 14I0148_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		3.33	3.47		ug/L		104	70 - 130

Lab Sample ID: 14I0148-MSD1

Matrix: Water

Analysis Batch: 14I0148

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 14I0148_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		3.33	3.33		ug/L		100	70 - 130	3.92	18.2

Lab Sample ID: 14I0148-DUP1

Matrix: Water

Analysis Batch: 14I0148

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14I0148_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Mercury	ND		ND		ug/L			17.1

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 14I0103-BLK1

Matrix: Water

Analysis Batch: 14I0103

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0103_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/L		09/17/14 07:52	09/17/14 14:39	1.00
Sulfate	ND		0.500		mg/L		09/17/14 07:52	09/17/14 14:39	1.00

Lab Sample ID: 14I0103-BS1

Matrix: Water

Analysis Batch: 14I0103

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0103_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.85		mg/L		97.0	90 - 110
Sulfate	12.5	11.9		mg/L		95.0	90 - 110

Lab Sample ID: 14I0103-MS1

Matrix: Water

Analysis Batch: 14I0103

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 14I0103_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	0.240		5.00	5.49		mg/L		105	80 - 120
Sulfate	27.5		12.5	39.2		mg/L		93.4	80 - 120

Lab Sample ID: 14I0103-MSD1

Matrix: Water

Analysis Batch: 14I0103

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 14I0103_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	0.240		5.00	5.50		mg/L		105	80 - 120	0.200	12.1

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method: EPA 300.0 - Anions by EPA Method 300.0 (Continued)

Lab Sample ID: 14I0103-MSD1

Matrix: Water

Analysis Batch: 14I0103

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 14I0103_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sulfate	27.5		12.5	39.1		mg/L		93.3	80 - 120	0.056	10
										2	

Lab Sample ID: 14I0103-DUP1

Matrix: Water

Analysis Batch: 14I0103

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14I0103_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Nitrate-Nitrogen	0.240		0.260		mg/L		8.00	13.1
Sulfate	27.5		26.7		mg/L		2.80	15.7

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Lab Sample ID: 14I0171-BLK1

Matrix: Water

Analysis Batch: 14I0171

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14I0171_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Lab Sample ID: 14I0171-BS1

Matrix: Water

Analysis Batch: 14I0171

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14I0171_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Alkalinity	500	490		mg/L		98.0	90 - 110

Lab Sample ID: 14I0171-DUP1

Matrix: Water

Analysis Batch: 14I0171

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14I0171_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Total Alkalinity	70.0		72.5		mg/L		3.51	10

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: 194370-29

Matrix: Water

Analysis Batch: 193503

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 193503_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 16:54	1
Cadmium	ND		0.00100		mg/L		09/26/14 13:54	09/30/14 16:54	1
Chromium	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 16:54	1
Lead	ND		0.00200		mg/L		09/26/14 13:54	09/30/14 16:54	1

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 194370-30

Matrix: Water

Analysis Batch: 193503

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 193503_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.1031		mg/L		103	85 - 115
Cadmium	0.100	0.1045		mg/L		105	85 - 115
Chromium	0.100	0.1012		mg/L		101	85 - 115
Lead	0.100	0.1067		mg/L		107	85 - 115

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: 194128-4

Matrix: Water

Analysis Batch: 194128

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 194128_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L		09/30/14 11:13	09/30/14 11:13	1
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
Acetylene (Surr)	105		62 - 124				09/30/14 11:13	09/30/14 11:13	1

Lab Sample ID: 194128-5

Matrix: Water

Analysis Batch: 194128

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 194128_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.279	0.2943		mg/L		106	80 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Acetylene (Surr)	117		62 - 124				

Lab Sample ID: 194128-6

Matrix: Water

Analysis Batch: 194128

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 194128_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Methane	0.279	0.2997		mg/L		108	80 - 120	2	33
Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits						
Acetylene (Surr)	112		62 - 124						

Lab Sample ID: 194128-8

Matrix: Water

Analysis Batch: 194128

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 194128_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Methane			0.279	0.2473		mg/L		89	46 - 142
Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits						
Acetylene (Surr)	110		62 - 124						

TestAmerica Spokane

QC Sample Results

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 194128-9

Matrix: Water

Analysis Batch: 194128

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 194128_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane			0.279	0.2484		mg/L		89	46 - 142	0	30

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Acetylene (Surr)	105		62 - 124

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0111-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/17/14 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0103_P	09/17/14 10:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0103	09/17/14 11:47	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	14I0171_P	09/26/14 10:19	MS	TAL SPK
Total	Analysis	SM 2320B		1.00	14I0171	09/26/14 16:09	MS	TAL SPK

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0111-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/17/14 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0103_P	09/17/14 10:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0103	09/17/14 12:31	CBW	TAL SPK

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0111-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/17/14 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0103_P	09/17/14 10:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0103	09/17/14 12:02	CBW	TAL SPK

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0111-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/17/14 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0103_P	09/17/14 10:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0103	09/17/14 12:16	CBW	TAL SPK

Client Sample ID: MW-Dup-091614

Lab Sample ID: SXI0111-05

Date Collected: 09/16/14 08:00

Matrix: Water

Date Received: 09/17/14 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0103_P	09/17/14 10:00	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0103	09/17/14 12:45	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-1-091614

Lab Sample ID: SXI0131-01

Date Collected: 09/16/14 10:19

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 15:28	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 15:28	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.964	14I0153_P	09/24/14 13:46	IAB	TAL SPK
Total	Analysis	EPA 8082A		1.00	14I0153	09/24/14 17:16	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		1.03	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/24/14 23:57	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.957	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 15:42	NMI	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	14I0196_P	09/30/14 10:40	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	14I0196	10/01/14 18:49	ICP	TAL SPK
Total	Prep	EPA 200 Series		1.00	14I0148_P	09/24/14 08:52	JSP	TAL SPK
Total	Analysis	EPA 245.1		1.00	14I0148	09/24/14 15:55	ZZZ	TAL SPK
Total	Prep	200.8			193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8		1	193503	09/30/14 17:30	JBD	TAL NSH
Total	Analysis	RSK-175		1	194128	09/30/14 12:47	JML	TAL NSH
Total	Prep	NA			194128_P	09/30/14 12:47		TAL NSH

Client Sample ID: GEI-MW-2-091614

Lab Sample ID: SXI0131-02

Date Collected: 09/16/14 12:18

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 15:50	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 15:50	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.983	14I0153_P	09/24/14 13:46	IAB	TAL SPK
Total	Analysis	EPA 8082A		1.00	14I0153	09/24/14 17:38	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.996	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/25/14 00:22	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.966	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 16:06	NMI	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	14I0196_P	09/30/14 10:40	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	14I0196	10/01/14 18:55	ICP	TAL SPK
Total	Prep	EPA 200 Series		1.00	14I0148_P	09/24/14 08:52	JSP	TAL SPK
Total	Analysis	EPA 245.1		1.00	14I0148	09/24/14 15:57	ZZZ	TAL SPK
Total	Prep	200.8			193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8		1	193503	09/30/14 17:35	JBD	TAL NSH
Total	Analysis	RSK-175		1	194128	09/30/14 12:50	JML	TAL NSH
Total	Prep	NA			194128_P	09/30/14 12:50		TAL NSH

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: GEI-MW-3-091614

Lab Sample ID: SXI0131-03

Date Collected: 09/16/14 09:13

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 16:13	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 16:13	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.967	14I0153_P	09/24/14 13:46	IAB	TAL SPK
Total	Analysis	EPA 8082A		1.00	14I0153	09/24/14 17:59	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		1.00	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/25/14 00:46	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.965	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 16:30	NMI	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	14I0196_P	09/30/14 10:40	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	14I0196	10/01/14 19:16	ICP	TAL SPK
Total	Prep	EPA 200 Series		1.00	14I0148_P	09/24/14 08:52	JSP	TAL SPK
Total	Analysis	EPA 245.1		1.00	14I0148	09/24/14 16:00	ZZZ	TAL SPK
Total	Prep	200.8			193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8		1	193503	09/30/14 17:41	JBD	TAL NSH
Total	Analysis	RSK-175		1	194128	09/30/14 12:54	JML	TAL NSH
Total	Prep	NA			194128_P	09/30/14 12:54		TAL NSH

Client Sample ID: HWA-MW-1-091614

Lab Sample ID: SXI0131-04

Date Collected: 09/16/14 11:16

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 16:35	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 16:35	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.962	14I0153_P	09/24/14 13:46	IAB	TAL SPK
Total	Analysis	EPA 8082A		1.00	14I0153	09/25/14 09:08	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		1.00	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/25/14 01:11	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		1.29	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 16:53	NMI	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	14I0196_P	09/30/14 10:40	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	14I0196	10/01/14 19:21	ICP	TAL SPK
Total	Prep	EPA 200 Series		1.00	14I0148_P	09/24/14 08:52	JSP	TAL SPK
Total	Analysis	EPA 245.1		1.00	14I0148	09/24/14 16:02	ZZZ	TAL SPK
Total	Prep	200.8			193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8		1	193503	09/30/14 17:56	JBD	TAL NSH
Total	Prep	200.8	RE1		193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8	RE1	1	193503	10/01/14 19:07	JBD	TAL NSH
Total	Analysis	RSK-175		1	194128	09/30/14 13:10	JML	TAL NSH
Total	Prep	NA			194128_P	09/30/14 13:10		TAL NSH

TestAmerica Spokane

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Client Sample ID: MW-Dup-091614

Date Collected: 09/16/14 08:00

Date Received: 09/19/14 09:50

Lab Sample ID: SXI0131-05

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0134	09/24/14 16:58	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0134_P	09/23/14 07:49	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0134	09/24/14 16:58	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.964	14I0153_P	09/24/14 13:46	IAB	TAL SPK
Total	Analysis	EPA 8082A		1.00	14I0153	09/24/14 18:41	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.997	14I0135_P	09/23/14 08:20	IAB	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0135	09/25/14 01:35	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.952	14I0145_P	09/24/14 08:30	IAB	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0145	09/24/14 17:17	NMI	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	14I0196_P	09/30/14 10:40	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	14I0196	10/01/14 19:24	ICP	TAL SPK
Total	Prep	EPA 200 Series		1.00	14I0148_P	09/24/14 08:52	JSP	TAL SPK
Total	Analysis	EPA 245.1		1.00	14I0148	09/24/14 16:04	ZZZ	TAL SPK
Total	Prep	200.8			193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8		1	193503	09/30/14 18:01	JBD	TAL NSH
Total	Prep	200.8	RE1		193503_P	09/26/14 13:54		TAL NSH
Total	Analysis	200.8	RE1	1	193503	10/01/14 19:12	JBD	TAL NSH
Total	Analysis	RSK-175		1	194128	09/30/14 13:15	JML	TAL NSH
Total	Prep	NA			194128_P	09/30/14 13:15		TAL NSH

Laboratory References:

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

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

TestAmerica Spokane

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Laboratory: TestAmerica Spokane

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

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

Laboratory: TestAmerica Nashville

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

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

TestAmerica Spokane

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-01

TestAmerica Job ID: SXI0111

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8082A	Polychlorinated Biphenyls by EPA Method 8082		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
EPA 200.7	Dissolved Metals by EPA 200 Series Methods		TAL SPK
EPA 245.1	Total Metals by EPA 200 Series Methods		TAL SPK
EPA 300.0	Anions by EPA Method 300.0		TAL SPK
SM 2320B	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK
200.8	Metals (ICP/MS)		TAL NSH
RSK-175	Dissolved Gases (GC)		TAL NSH

Protocol References:

Laboratory References:

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

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

CHAIN OF CUSTODY REPORT

Work Order # **EXT-0111**

CLIENT: Geo Engineers			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☒ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. OTHER Specify:							
REPORT TO: Scott Lathen ADDRESS: 523 E second Ave Spokane WA 99202			P.O. NUMBER:																	
PHONE: 509-363-3125 FAX: 509-363-3126			PRESERVATIVE										* Turnaround Requests less than standard may incur Rush Charges.							
PROJECT NAME: Trolley Barn			REQUESTED ANALYSES																	
PROJECT NUMBER: 0504-101-01													MATRIX (W, S, O) # OF CONT. LOCATION/ COMMENTS TA WO ID							
SAMPLED BY: JWR																				
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	Nitrate	Sulfate	Ammonia															
1 GEI-MW-1-091614		9/16/14 1019	X	X	X											W	1			
2 GEI-MW-2-091614		9/16/14 1218	↓	↓	↓											↓	↓			
3 GEI-MW-3-091614		9/16/14 0913	↓	↓	↓											↓	↓			
4 HWA-MW-1-091614		9/16/14 1116	↓	↓	↓											↓	↓			
5 MW-DOP-091614		9/16/14 0800	↓	↓	↓											↓	↓			
6																				
7																				
8																				
9																				
10																				
RELEASED BY: Justin Rice			FIRM: Geo			DATE: 9/16/14			TIME: 1500			RECEIVED BY: Ol Stapleton			FIRM: TestAmerica			DATE: 9-17-14		
PRINT NAME:			FIRM:			DATE:			TIME:			PRINT NAME:			FIRM:			DATE:		
ADDITIONAL REMARKS:																				

**TestAmerica Spokane
Sample Receipt Form**

Work Order #: SKIDM	Client: GenEngineers	Project: Trolley Barn		
Date/Time Received: 9/17/14 8:25	By: CS			
Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Client ☐ Other: _____				
List Air Bill Number(s) or Attach a photocopy of the Air Bill:				
Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	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: 3.4 °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	Yes	No	NA	Comments
Date/Time: 9/17/14 8:30 By: CS				
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			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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order # **SX10131**

CLIENT: Geo Engineers			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. Petroleum Hydrocarbon Analyses ☒ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1 STD. ☐ OTHER Specify:						
REPORT TO: Scott Lathen slathen@geoengineers.com			P.O. NUMBER:																
ADDRESS: 523 E second Ave Spokane WA 99202																			
PHONE: 509-363-3125 FAX: 509-363-3126																			
PROJECT NAME: Trolley Barn			PRESERVATIVE																
PROJECT NUMBER: 0504-101-01			REQUESTED ANALYSES																
SAMPLED BY: UWR																			
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		NWTPH-Gx	NWTPH-Dx	VOC	PAHs	PCBs	Metals	Mn (diss)	Methane					MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID	
1 GEI-MW-1-091614	9/16/14 1019		X	X	X	X	X	X	X	X					W	10			
2 GEI-MW-2-091614	1218																		
3 GEI-MW-3-091614	0913																		
4 HWA-MW-1-091614	1116																		
5 MW-DUP-091614	0800																		
6																			
7																			
8																			
9																			
10																			
RELEASED BY: JR		FIRM: Geo		DATE: 9/19/14		TIME: 0950		RECEIVED BY: Cal Stapleton		FIRM: TA		DATE: 9-22-14		TIME: 9:50					
PRINT NAME: Justin Rice								RECEIVED BY:		FIRM:		DATE:		TIME:					
ADDITIONAL REMARKS:																			

TAL-1000 (0612)

**TestAmerica Spokane
Sample Receipt Form**

Work Order # <u>SXLD131</u>	Client <u>GeoEngineers</u>	Project: <u>Trolley Barn</u>		
Date/Time Received: <u>9-19-14 9:50</u>		By: <u>CS</u>		
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:	<u>X</u>			
Custody Seals are present and intact:			<u>></u>	
Are CoC documents present:	<u>></u>			
Necessary signatures:	<u>X</u>			
Thermal Preservation Type: ☐ Blue Ice ☐ Gel Ice ☒ Real Ice ☐ Dry Ice ☐ None ☐ Other: _____				
Temperature: <u>3.8</u> °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	Yes	No	NA	Comments
Date/Time: <u>9-19-14 11:20</u> By: <u>CS</u>				
Are sample labels affixed and completed for each container	<u>X</u>			
Samples containers were received intact:	<u>X</u>			
Do sample IDs match the CoC	<u>X</u>			
Appropriate sample containers were received for tests requested	<u>X</u>			
Are sample volumes adequate for tests requested	<u>X</u>			
Appropriate preservatives were used for the tests requested	<u>X</u>			
pH of inorganic samples checked and is within method specification	<u>X</u>			
Are VOC samples free of bubbles >6mm (1/4" diameter)	<u>X</u>			
Are dissolved parameters field filtered		<u>X</u>		<u>Need to be filtered w/HNO₃</u>
Do any samples need to be filtered or preserved by the lab	<u>X</u>			
Does this project require quick turnaround analysis		<u>X</u>		
Are there any short hold time tests (see chart below)		<u>X</u>		
Are any samples within 2 days of or past expiration		<u>X</u>		
Was the CoC scanned	<u>X</u>			
Were there Non-conformance issues at login		<u>X</u>		
If yes, was a CAR generated # _____			<u>X</u>	

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

Report Limitations and Guidelines for Use

APPENDIX C

REPORT LIMITATIONS AND GUIDELINES FOR USE¹

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. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

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

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

This report has been prepared for the Trolley Barn site located at 404 South 3rd Street, Yakima, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, 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 Ecology and generally accepted environmental practices in this area at the time this report was prepared.

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

Environmental Regulations are Always Evolving

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

Uncertainty May Remain Even After This Phase II ESA is Completed

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

Subsurface Conditions Can Change

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

Soil and Groundwater End Use

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

Most Environmental Findings are Professional Opinions

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

Do Not Redraw the Exploration Logs

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

Read These Provisions Closely

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

Geotechnical, Geologic and Geoenvironmental Reports Should Not be Interchanged

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

Biological Pollutants

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

If 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**](http://www.geoengineers.com/feedback).



www.geoengineers.com

