Soil and Groundwater Assessment

Frenchies' Fill-N-Food
Moxee, Washington

for
Washington State Department of Ecology

June 6, 2013

GeoEngineers
Earth Science + Technology

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File No. 0504-075-00

June 6, 2013

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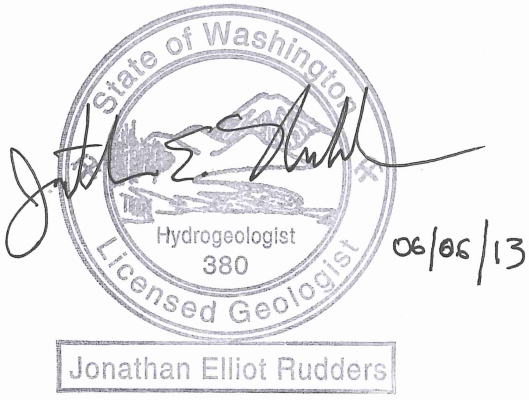

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1.0 INTRODUCTION

This report describes supplemental groundwater monitoring well installation, soil sampling, and groundwater monitoring activities conducted at the former Frenchies' Fill-N-Food site located at 106 East Moxee Avenue in Moxee, Washington (herein referred to as "site"). The site is located approximately as shown in the attached Vicinity Map, Figure 1.

Environmental activities at the site currently are managed by the Washington State Department of Ecology (Ecology). This report describes field activities, observations, and chemical analytical results associated with soil and groundwater samples collected at the site, and provides recommendations for further assessment. The purpose of the assessment activities described herein was to identify the source and extent of remnant contamination in soil and shallow groundwater beneath the site, if any, associated with operation of four underground storage tanks (USTs) formerly installed on-site.

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located on the southwest corner of the intersection of East Moxee Avenue and North Spokane Street within the south central portion of downtown Moxee, Washington. The existing site building is centrally located along the western property boundary. The remainder of the site is paved with asphaltic concrete and is relatively level. East Moxee Avenue and North Spokane Street bound the property to the north and east, respectively. The adjacent property to the south is a City Park. The adjacent property to the west is City property and is occupied by a preschool facility named Kid's Korner. The general location of the site and the general site layout is depicted on Site Plan, Figure 2.

The site is currently used as a bakery and hair salon but it formerly operated as a gasoline station and auto service center until about 1994. During January 1994, Cayuse Environmental (Cayuse) and their excavation contractor removed three 4,000-gallon and one 6,000-gallon gasoline USTs from the site. The associated UST removal report (Cayuse, 1994) indicated the four USTs were located south of the "store" building (assumed to be the existing building) and the associated fuel lines ran from the tanks to fuel dispensers located north of the store. The four USTs removed in 1994 reportedly were installed during the mid-1980s and replaced four previously-installed gasoline USTs at the site. Precise UST and dispenser locations were not provided in the Cayuse report. The Cayuse report indicated approximately 1,800 cubic yards of petroleum-impacted soil were excavated during UST removal activities. Soil samples contained concentrations of gasoline-range petroleum hydrocarbons (GRPH) greater than Model Toxics Control Act (MTCA) Method A cleanup criteria. Groundwater was encountered about 10 feet below ground surface (depths in this report are referenced to ground surface unless otherwise noted) during excavation activities. Laboratory results indicated a grab sample collected from groundwater accumulated in the excavation contained GRPH concentrations greater than MTCA Method A cleanup criteria.

GeoEngineers conducted a soil assessment for Ecology at the site in February 2012. Soil assessment results indicate vadose zone soils generally located north of the current building are contaminated with GRPH and volatile organic compounds (VOCs). Specifically, soil samples from

borings DP-2 through DP-5 and DP-8 through DP-10 contained concentrations of GRPH and/or VOCs greater than MTCA Method A Cleanup Criteria. Groundwater was encountered at depths between about 9.8 feet to 11.5 feet below ground surface (bgs) during the soil assessment activities. Boring locations associated with GeoEngineers' February 2012 site assessment are presented in Figure 2.

3.0 SCOPE OF SERVICES

GeoEngineers prepared an Interim Action and Groundwater Monitoring Work Amendment dated May 22, 2012 based on a file review (Cayuse, 1994) and on site environmental activities performed to date (GeoEngineers, 2012A). The Work Amendment recommended additional assessment of residual soil and groundwater contamination at the site. The scope of services performed by GeoEngineers during implementation of the Work Amendment included the following:

3.1. General

- Notified the Call-Before-You-Dig utility notification service.
- Subcontracted a private utility locator to clear explorations located on private property.
- Coordinated with the property owner, Kid's Korner Preschool and the City of Moxee to facilitate drilling operations.
- Subcontracted a licensed contractor to remove and dispose investigation-derived waste (IDW) from assessment activities at a suitable disposal facility.

3.2. Soil Assessment

- Advanced four soil monitoring wells (MW-1 through MW-4) using hollow stem auger drilling methods on September 25 and 26, 2012 at the approximate locations presented in the Figure 2. The monitoring wells were drilled to depths of approximately 22 feet.
- Collected soil samples during drilling operations at an interval of 5 feet throughout the monitoring wells. Samples were field-screened using visual observations, water sheen, and headspace vapor measurements with a photoionization detector (PID) to assess possible presence of petroleum-related contaminants.
- Submitted four soil samples to TestAmerica Laboratories, Inc. (TestAmerica) located in Spokane, Washington for chemical analysis. Soil samples were analyzed for:
    - GRPH using Northwest Method NWTPH-Gx.
    - BTEX and methyl tertiary-butyl ether (MTBE) using United States Environmental Protection Agency (EPA) Method 8260C.
    - Naphthalene (Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene) using EPA Method 8270C SIM.

3.3. Monitoring Well Installation

- Constructed four monitoring wells within monitoring wells MW-1 through MW-4 at the approximate locations presented in Figure 2. Wells were constructed of 2-inch-diameter, Schedule 40, polyvinyl chloride (PVC) casing and well screens. Each well was completed with a bentonite seal and a flush-mount surface monument. The concrete surface-seal was placed

around the monument at the ground surface to divert surface water away from the well location. A lockable cap and lock was installed in the top of each PVC well casing.

- Developed the monitoring wells using a combination of surging and pumping.
- Measured stabilized depth to groundwater within each monitoring well.
- Subcontracted a licensed surveyor to measure and record elevations and horizontal locations of the monitoring wells.

3.4. Groundwater Monitoring

A quarterly groundwater monitoring event was performed on October 19, 2012, during which the following activities were performed:

- Measured the depth to groundwater in each of the site groundwater monitoring wells.
- Collected groundwater samples from each monitoring well using low-flow/low-stress sampling techniques. During well purging, water quality parameters (pH, conductivity, temperature, dissolved oxygen, and reduction-oxidation potential) were monitored and recorded.
- Submitted groundwater samples to TestAmerica for chemical analysis. Samples were analyzed for:
    - GRPH using Northwest Method NWTPH-Gx.
    - BTEX, EDC, MTBE and n-hexane using EPA Method 8260C.
    - EDB by EPA Method 8011.
    - Lead using EPA 6000 Series Methods.
    - Naphthalenes (Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene) using EPA Method 8270C SIM.

  Groundwater samples were additionally analyzed for natural attenuation parameters including nitrate, soluble manganese (Mn^{+2}), sulfate (SO_4), methane (CH_4) and alkalinity (in addition to field measurements of dissolved oxygen [DO], temperature, specific conductivity, pH and reduction oxidation potential [ORP]). Soluble ferrous iron (Fe^{2+}) will be included as a parameter to monitor natural attenuation, and will be measured in the field using a color disc test kit and the 1,10 phenanthroline testing method.

3.5. Results Evaluation

- Compared laboratory analytical results with applicable MTCA Method A groundwater cleanup criteria.
- Estimated groundwater flow direction and the range in hydraulic gradient across the site.
- Enter data results information into Ecology's Environmental Information Management (EIM) database.
- Developed recommendations regarding appropriate supplemental activities that should be performed to investigate and address residual contamination remaining on-site.

4.0 FIELD ACTIVITIES

4.1. General

Advanced Underground Utility Locating, Inc. of Spokane, Washington conducted a private utility locate of the site on September 25, 2012. Environmental West Explorations (Environmental West) of Spokane, Washington, advanced four monitoring wells (MW-1 through MW-4) to depths of about 22 feet using hollow stem auger drilling methods on September 25 and 26, 2012. Monitoring wells MW-1 through MW-4 were completed as monitoring wells. Monitoring well locations are presented in Figure 2 and summarized by the following:

- Soil monitoring well MW-1 was drilled in an interpreted upgradient location with respect to the location of the former gas station service island that was identified using historic aerial photographs of the site.
- Soil monitoring wells MW-2 through MW-4 were on the Kid's Korner property, downgradient of petroleum-impacted soil observed during GeoEngineers' February 2012 assessment activities.
- Monitoring wells MW-1 through MW-4 were installed to evaluate groundwater conditions at the site and on the adjacent property.

Soil cuttings and decontamination/development water were placed in 55-gallon steel drums, labeled, and stored behind the building.

Monitoring well logs associated with the monitoring wells are provided in Appendix A.

4.2. Subsurface Conditions

Observed native soil conditions generally were consistent within the four soil monitoring wells described herein. Brown, fine sand with silt interbedded with silty fine to coarse sand was observed in each monitoring well to the completed depth of the monitoring wells at 22 feet. A trace of gravel was observed within the sand unit in monitoring well MW-1 between 1 and 10 feet in depth and in MW-4 between 15 and 20 feet in depth.

Groundwater was encountered during drilling operations in each monitoring well, at depths that ranged from about 14 to 18.5 feet in depth. Groundwater was encountered under unconfined (water table) conditions.

4.3. Field Screening and Sampling

Soil samples were collected at approximate 5-foot-depth intervals from each monitoring well and field-screened for the potential presence of petroleum contamination by visual examination, headspace vapor monitoring with a PID, and water-sheen testing. Procedures for field-screening and sampling are provided in Appendix A. No sheens were observed on soil samples collected from monitoring wells MW-1 through MW-4. No petroleum-stained soil was observed.

Headspace vapors were not detected while screening soil samples collected from monitoring wells MW-1 and MW-4. Headspace vapor measurements of 1,019 parts per million (ppm) were observed in monitoring well MW-2 at 15 feet and 509 ppm in monitoring well MW-3 at 15 feet. Headspace vapors were not detected while screening the remaining soil samples collected from

monitoring wells MW-2 and MW-3. The high headspace vapor measurements, generally indicative of contaminated soil, were observed near the static water level in monitoring wells MW-2 and MW-3.

Four soil samples collected from the unsaturated zone (one sample from each of the four monitoring wells) were submitted to TestAmerica for analysis using the methods described in "Section 3.0"; chemical analytical results are discussed in "Section 5.0".

4.4. Monitoring Well Installation

Four monitoring wells, designated MW-1 through MW-4, were installed in the approximate locations presented in Figure 2. Well construction details for monitoring wells MW-1 through MW-4 are provided in Figures A-2 through A-5 of Appendix A, respectively. The monitoring wells were installed using hollow-stem auger drilling techniques and constructed of 2-inch-diameter, Schedule 40 polyvinyl chloride (PVC) casing and 0.010-inch slot Schedule 40 PVC well screen surrounded by a sand filter pack and bentonite seal. The installed well screens extend from depths of about 7 to 22 feet in each of the monitoring wells and are screened across the top of the uppermost aquifer underlying the site. The screen range attempts to account for the projected seasonal fluctuation in groundwater elevation and necessary hydraulic head above sampling pump intake. Prior depth-to-groundwater measurements were utilized to determine screen depths and lengths.

Monitoring wells MW-1 through MW-4 were completed with flush-mount surface monuments. Lockable compression caps were installed to seal the top of the PVC well casings. A concrete surface seal was constructed around each monument at the ground surface to divert surface water away from the well casings.

The horizontal locations and relative elevations of the top of well casing at each new monitoring well location were surveyed on November 12, 2012 by Thomas, Dean & Hoskins, Inc. of Spokane, Washington. Horizontal locations were surveyed relative to Washington State Plane Coordinates (WASPC), South Zone. Elevations were surveyed relative to the North American Vertical Datum of 1988 (NAVD 88). Survey results are presented in Summary of Groundwater Level Measurements, Table 1.

4.5. Groundwater Elevation Monitoring

Following installation and development of monitoring wells MW-1 through MW-4, static depth to groundwater was measured on October 19, 2012 using an electronic water level indicator. Depths ranged from 15.26 feet (MW-4) to 16.11 feet (MW-1) below the top of well casing. Corresponding groundwater elevations ranged from about 1,037.31 feet in MW-4 to 1,037.80 feet in MW-1.

Based on groundwater elevations measured on October 19, 2012, groundwater flow in the unconfined aquifer beneath the site generally was toward the west. Hydraulic gradient was about 0.003 feet per foot (about 15 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, east and south of the site and, potentially, the stage of adjacent surface water

within the Yakima River and irrigation canals. Groundwater elevations, hydraulic gradient, and groundwater flow direction are likely to vary seasonally.

Groundwater depths and relative elevations are included in Table 1. Groundwater Elevations, October 19, 2012, Figure 3 presents relative groundwater elevations, approximate groundwater elevation contours and interpreted groundwater flow direction on October 19, 2012.

4.6. Groundwater Sampling

Monitoring wells were purged and sampled on October 19, 2012 using standard low-flow sampling methodology. A portable bladder pump equipped with a disposable bladder and disposable tubing was used to purge and sample each well. Groundwater water quality parameters generally were measured at 3-minute intervals during well purging. Groundwater samples were collected when each water quality parameter had stabilized in conformance with the criteria presented in Appendix A. Groundwater samples were submitted to TestAmerica for analysis using the methods described in "Section 3.0"; chemical analytical results are discussed in "Section 5.0".

Purge water generated during groundwater sampling was drummed, labeled and stored on the adjacent City of Moxee property pending analytical results for profiling and disposal.

5.0 CHEMICAL ANALYTICAL RESULTS

5.1. Soil Chemical Analytical Results

Four soil samples collected from the unsaturated zone (one sample from each of the four monitoring wells) were submitted to TestAmerica for the chemical analyses described in "Section 3.0". TestAmerica's laboratory report is included in Appendix B; chemical analytical results are summarized and compared to MTCA Method A cleanup levels for Unrestricted Land Use in Summary of Chemical Analytical Results - Soil, Table 2. Note that additional soil samples were analyzed during prior assessment activities; results are provided in the UST removal document (Cayuse, 1994) and Soil Assessment Report (GeoEngineers, 2012A). Chemical analytical results for the submitted soil samples are summarized by the following:

- GRPH were detected in the soil sample collected from a depth of about 15 feet in monitoring well MW-2 at a concentration of 3,800 milligrams per kilogram (mg/kg) and in the soil sample collected from a depth of 15 feet in monitoring well MW-3 at a concentration of 474 mg/kg. Both concentrations exceed the MTCA Method A cleanup level of 30 mg/kg (when benzene is present), which is the applicable site-wide cleanup level for GRPH. GRPH were either not detected or detected at concentrations less than MTCA Method A cleanup levels in samples analyzed from the MW-1 and MW-4.
- Benzene was detected in the soil sample collected from a depth of about 15 feet in monitoring well
  MW-2 at a concentration of 0.128 mg/kg, which exceeds the MTCA Method A cleanup level for benzene of 0.03 mg/kg. Benzene was not detected in samples analyzed from the MW-1, MW-3, and MW-4.

- Ethylbenzene, xylenes and naphthalenes were detected at concentrations less than respective MTCA Method A cleanup levels in the sample collected from the monitoring well MW-2.
- MTBE, BTEX and naphthalenes were not detected in samples collected from monitoring wells MW-1, MW-3 and MW-4.

5.2. Groundwater Chemical Analytical Results

5.2.1. General

Groundwater samples were collected on October 19, 2012 from monitoring wells MW-1 through MW-4. Groundwater samples were submitted to TestAmerica for the chemical analyses described in "Section 3.0". TestAmerica's laboratory report is included in Appendix B. Chemical analytical results are tabulated and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results - Groundwater, Table 3.

5.2.2. Contaminants of Concern

Groundwater analytical results for the project contaminants of concern are summarized by the following:

- GRPH were detected at a concentration of 1,030 micrograms per liter (µg/L) in the sample collected from MW-2 and at a concentration of 5,640 µg/L in the sample collected from MW-3. These concentrations exceed the MTCA Method A cleanup level of 800 µg/L (when benzene is present). GRPH were either not detected or detected at concentrations less than respective MTCA Method A cleanup levels in samples collected from the remaining monitoring wells.
- Benzene was detected at a concentration of 71.6 µg/L in the sample collected from MW-3, which exceeds the MTCA Method A cleanup level of 5 µg/L. Benzene was either not detected or detected at concentrations less than the MTCA Method A cleanup levels in samples collected from the remaining monitoring wells.
- Ethylbenzene, xylenes, hexane, naphthalenes and 1,2-Dichloroethane (EDC) were either not detected or detected at concentrations less than respective MTCA Method A cleanup levels.
- MTBE, toluene, EDB, and lead were not detected.

5.2.3. Natural Attenuation Parameters

In addition to the contaminants of concern, groundwater samples were analyzed for natural attenuation parameters. Concentrations of the following natural attenuation parameters were analyzed in the laboratory by TestAmerica: nitrate, soluble manganese, sulfate, methane and alkalinity. Laboratory results are provided in Table 3.

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

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

- DO ranged from 0.0 mg/L in MW-3 to 0.66 mg/L in MW-1.
- Temperature ranged from 16.25 degrees Celsius in MW-2 to 17.28 degrees Celsius in MW-1.
- Specific conductivity ranged from 1.294 milliSiemens per centimeter (mS/cm) in MW-2 to 1.787 mS/cm in MW-4.
- pH ranged from 6.72 in MW-3 to 7.26 in MW-1.
- ORP ranged from -21 millivolts (mV) in MW-3 to 295 mV in MW-4.
- Nitrate-Nitrogen concentration ranged from <0.200 mg/L in MW-2, MW-3 and MW-4 to 10.9 mg/L in MW-1.
- Soluble manganese concentration ranged from 0.881 mg/L in MW-1 to 6.04 mg/L in MW-4.
- Sulfate concentration ranged from 3.76 mg/L in MW-3 to 199 mg/L in MW-1.
- Methane concentration ranged from <0.005 mg/L in MW-1 to 0.0136 mg/L in MW-3.
- Total alkalinity ranged from 695 mg/L in MW-1 to 1,140 mg/L in MW-3.

6.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

6.1. Subsurface Conditions

Monitoring well installation activities were conducted September 25 and 26, 2012 at the Frenchies' Fill-N-Food site located at 106 East Moxee Avenue in Moxee, Washington. Four soil monitoring wells (MW-1 through MW-4) were advanced to depths of about 22 feet. The four were completed as groundwater monitoring wells.

Observed native soil conditions generally consisted of brown, fine sand with silt interbedded with silty fine to coarse sand that extended to depths of about 22 feet. Groundwater was encountered during drilling at depths of about 14 to 18.5 feet. At the time of our groundwater investigation, groundwater was interpreted to flow to the west under a hydraulic gradient of about 0.003 feet per foot (about 15 feet per mile).

Soil samples from each monitoring well were field-screened for the potential presence of petroleum contamination by headspace vapor monitoring with a PID (among other methods). Field screening results indicated elevated PID measurements (1,019 ppm and 509 ppm) near the groundwater table in monitoring wells MW-2 and MW-3, respectively.

6.2. Chemical Analytical Results

Chemical analytical results are summarized by the following:

- GRPH were detected at concentrations greater than MTCA Method A cleanup levels in the soil sample collected from a depth of about 15 feet in monitoring wells MW-2 and MW-3.
- Benzene was detected at concentrations greater than MTCA Method A cleanup levels in the soil sample collected from a depth of about 15 feet in monitoring wells MW-2.

- GRPH were detected at concentrations greater than MTCA Method A cleanup levels in the groundwater samples collected from monitoring wells MW-2 and MW-3.
- Benzene was detected at concentrations greater than MTCA Method A cleanup levels in the groundwater sample collected from monitoring well MW-3.
- Laboratory results associated with the remaining contaminants of concern were either not detected or detected at concentrations less than respective MTCA Method A cleanup levels.

6.3. Contaminant Distribution

Monitoring wells MW-2 and MW-3, with gasoline-associated contaminant concentrations exceeding MTCA Method A cleanup levels are located at the site. The two monitoring wells are located downgradient from the cleanup level exceedance locations identified at soil probes DP-2 through DP-5 and DP-8 through D-10 during GeoEngineers' February 2012 subsurface soil investigation (GeoEngineers, 2012A).

Based on the 1994 site assessment (Cayuse, 1994), about 1,800 tons of petroleum-contaminated soil were excavated from the site during UST removal activities. During this and prior assessment activities, the highest residual petroleum hydrocarbon concentrations appear to be located in vadose-zone soil between about 7 and 12 feet below grade. During periods of seasonal high groundwater levels, rising groundwater contacts the base of the contaminated soil, and a portion of the residual non-aqueous phase petroleum transitions to a dissolved phase, which migrates downgradient (west) via groundwater transport. The approximate lateral extent of observed vadose-zone contamination is about 2,500 square feet; the lateral extent of contaminated groundwater (plume geometry) has not yet been fully defined.

Potential human exposure pathways to site contamination include dermal contact and vapor inhalation, and possibly groundwater ingestion.

Figure 2 presents recent and historic soil samples and boring locations, and references those locations where contaminants were observed at concentrations greater than cleanup levels.

6.4. Natural Attenuation Processes

In general, observed natural attenuation parameters suggest that natural attenuation processes (and associated loss of contaminant mass) are ongoing near monitoring wells MW-2 and MW-3. This conclusion is based the following observed conditions in monitoring well MW-2 and MW-3 relative to upgradient monitoring well MW-1.

- A decrease in nitrate and sulfate concentrations.
- A decrease in DO and ORP.
- An increase in methane concentration.

Interestingly, nitrate and sulfate concentrations also were depleted and soluble manganese and methane concentrations were elevated in downgradient monitoring well MW-4 relative to monitoring well MW-1. This deviation in parameters when compared to those observed in MW-1, the upgradient monitoring well, may be reflective of the impact that upgradient natural attenuation processes and subsequent groundwater transport has on the concentration of specific electron

acceptor compounds (nitrate and sulfate), and natural attenuation indicator compounds (soluble manganese and methane) near downgradient well MW-4.

6.5. Data Gaps

Existing data gaps consist of the following:

- The seasonal variation in groundwater flow and associated impact on contaminant transport.
- The lateral extent of groundwater contamination exceeding cleanup levels adjacent to MW-2 and MW-3.
- The extent of soil and or groundwater contamination beneath the former Frenchies Fill-N-Food building, beneath the water main (north of the identified area of contamination), south and west of monitoring well MW-2 and boring DP-2, and in the former UST excavation/suspecting fuel piping areas south and southwest of the former Frenchies Fill-N-Food building.
- The effectiveness of natural attenuation processes at reducing or stabilizing site groundwater contaminant plume geometry and concentrations.

6.6. Recommendations

The observed petroleum contamination observed in groundwater and soil samples collected at the site likely represents residual impact associated with former service station UST operation. As a result, we recommend that:

- Identify the extent of petroleum hydrocarbon contamination in the areas referenced in Section 6.4. This includes the north portion of the site in East Moxee Avenue, the western portion of the former UST excavation area, and west of monitoring well MW-2 and boring DP-2.
- Utilize current vapor models to assess the potential vapor pathway beneath the building.
- Consider a cost-effective remedial option for the site, which could include a combination of methodologies including limited excavation in in-situ remediation.
- Continue the quarterly groundwater monitoring program currently planned for the site, including monitoring of natural attenuation parameters.

7.0 LIMITATIONS

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

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

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

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

8.0 REFERENCES

Cayuse Environmental, 1994. Letter to Mr. Jay LaCourisere entitled "Notification of tank removal and contaminated soil removal at 106 Moxee Avenue, Moxee, WA. January 14, 1994.

GeoEngineers, Inc. 2012A. Soil Assessment, Frenchies' Fill-N-Food, Moxee, Washington. May 21, 2012.

GeoEngineers, Inc. 2012B. Sampling and Analysis Plan, Soil and Groundwater Assessment, Frenchies Fill-N-Food, Moxee, Washington. February 1 2012.

TABLES

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Table 1

Summary of Groundwater Level Measurements

Frenchies' Fill-N-Food Site

Moxee, Washington

Well Number	Date Measured	Grid Northing[1] (feet)	Grid Easting[1] (feet)	Top of Casing Elevation[2] (feet)	Monitoring Well Headspace[3] (ppm)	Depth to Groundwater[4] (feet)	Groundwater Elevation[2] (feet)
MW-1	10/19/12	445516.9131	1669628.5314	1,053.91	14.7	16.11	1,037.80
MW-2	10/19/12	445550.4938	1669546.4951	1,053.53	980	16.00	1,037.53
MW-3	10/19/12	445506.0355	1669547.5414	1,053.54	37.4	16.05	1,037.49
MW-4	10/19/12	445501.8313	1669479.9925	1,052.57	0	15.26	1,037.31

Notes:

[1]Grid northing and easting are referenced to NAVD88, Washington State Plane Coordinate System, South Zone.

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

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

[4]Depth to water measurements obtained from top of PVC well casing.

ppm = parts per million

https://projects.geoengineers.com/sites/0050407500/Draft/Frenchies Soil and Groundwater Monitoring Assessment Report/[Frenchies Soil and GW Analytical Tables.xlsx]Table 1

Table 2

Summary of Chemical Analytical Results - Soil[1]

Frenchies' Fill-N-Food Site
Moxee, Washington

Boring / Sample Depth (feet) / Date Sampled	MTCA Method A Cleanup Levels[2]	MW-1 10 09/25/12	MW-2 15 09/25/12	MW-3 15 09/25/12	MW-4 11 09/25/12
Method EPA 8260C - NWTPH-Gx and Volatile Organic Compounds (mg/kg)					
Gasoline-range hydrocarbons	30/100[3]	<4.94	**3,800**	**474**	<8.30
Methyl tert-butyl ether	0.10	<0.00593	<0.0106	<0.00998	<0.00996
Benzene	0.03	<0.00494	**0.128**	<0.00831	<0.00830
Ethylbenzene	6	<0.0989	4.63	<0.166	<0.166
Toluene	7	<0.0989	<0.177	<0.166	<0.166
o-Xylene	9[4]	<0.198	<0.354	<0.333	<0.332
m,p-Xylene	9[4]	<0.395	5.95	<0.665	<0.664
Xylenes (total)	9[4]	<1.48	5.95	<2.49	<2.49
Method EPA 8270 mod. - Polynuclear Aromatic Compounds (PAH) by GC/MS with Selected Ion Monitoring (mg/kg)					
Naphthalene	5[5]	<0.0103	0.123	<0.0132	<0.0130
2-Methylnaphthalene	5[5]	<0.0103	0.0876	<0.0132	<0.0130
1-Methylnaphthalene	5[5]	<0.0103	0.508	<0.0132	<0.0130

Notes:

[1]Chemical analyses conducted by TestAmerica Laboratories, Inc. of Spokane, Washington. All analyte concentrations presented in mg/kg.

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

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

[4]Cleanup level for total xylenes.

[5]Cleanup level refers to sum of naphthalenes.

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

https://projects.geoengineers.com/sites/0050407500/Draft/Frenchies Soil and Groundwater Monitoring Assessment Report/[Frenchies Soil and GW Analytical Tables.xlsx]Table 2

Table 3

Summary of Chemical Analytical Results - Groundwater[1]

Frenchies' Fill-N-Food Site
Moxee, Washington

	MTCA Method A Cleanup Levels[2]	Monitoring Well and Date Sampled			
		MW-1	MW-2	MW-3	MW-4
		10/19/12	10/19/12	10/19/12	10/19/12
Method EPA 8260C (µg/l)					
Gasoline-range petroleum hydrocarbons	1,000/800[3]	<90.0	**1,030**	**5,640**	<90.0
Methyl tert-butyl ether	20	<0.500	<0.500	<0.500	<0.500
Benzene	5	<0.200	1.07	**71.6**	<0.200
Toluene	1,000	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	700	<0.500	1.28	2.88	<0.500
m,p-Xylene	1,000[4]	<0.500	<0.500	3.30	<0.500
o-Xylene	1,000[4]	<0.500	<0.500	0.680	<0.500
Xylenes (total)	1,000[4]	<1.50	<1.50	3.98	<1.50
1,2-Dichloroethane (EDC)	5	<0.500	<0.500	4.07	1.78
Hexane	NE	<1.00	<1.00	30.4	<1.00
Method EPA 8011 (µg/l)					
1,2-Dibromoethane (EDB)	0.01	<0.0100	<0.0100	<0.0100	<0.0100
Method EPA 8270 (µg/l)					
Naphthalene	160[5]	<0.219	0.397	<0.222	<0.222
2-Methylnaphthalene	160[5]	<0.219	<0.220	<0.222	<0.222
1-Methylnapthalene	160[5]	<0.219	0.364	3.30	<0.222
Method EPA 200.7 - Total Metals by EPA 200 Series Methods (mg/l)					
Lead	0.015	<0.0150	<0.0150	<0.0150	<0.0150
Method RSK-175 - Dissolved Gases (GC) (µg/l)					
Methane	NE	<0.005	0.00598	0.0136	0.00565
Method EPA 200.7 - Dissolved Metals by EPA 200 Series Methods (mg/l)					
Manganese	0.05[6]	0.881	2.61	0.933	6.04
Method EPA 300.0 - Anions by EPA Method 300.0 (mg/l)					
Nitrate-Nitrogen	10[7]	10.9	<0.200	<0.200	<0.200
Sulfate	250[6]	199	78.2	3.76	141

	MTCA Method A Cleanup Levels[2]	Monitoring Well and Date Sampled			
		MW-1	MW-2	MW-3	MW-4
		10/19/12	10/19/12	10/19/12	10/19/12
Method SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods (mg/l)					
Total Alkalinity	NE	695	785	1,140	1,000

Notes:

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

[2]Washington State Model Toxics Control Act Method A cleanup levels for groundwater.

[3]Washington State Model Toxics Control Act (MTCA) Method A cleanup level for gasoline-range petroleum hydrocarbons is 1,000 µg/l, if benzene is not detected; otherwise the cleanup level is 800 µg/l.

[4]Cleanup level for total xylenes.

[5]Cleanup level refers to sum of naphthalenes.

[6]Secondary maximum contamination level recommended by the Environmental Protection Agency.

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

NE = not established; µg/l = micrograms per liter; mg/l = milligrams per liter

https://projects.geoengineers.com/sites/0050407500/Draft/Frenchies Soil and Groundwater Monitoring Assessment Report/[Frenchies Soil and GW Analytical Tables.xlsx]Table 3

Table 4

Summary of Field-Measured Natural Attenuation Parameters

Frenchies' Fill-N-Food Site
Moxee, Washington

Well Number	Date Collected	pH	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)
MW-1	10/19/12	7.26	17.28	1.422	0.66	259
MW-2	10/19/12	7.08	16.25	1.294	0.08	170
MW-3	10/19/12	6.72	17.09	1.702	0.00	-21
MW-4	10/19/12	7.21	16.61	1.787	0.32	295

Notes:

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

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

ttps://projects.geoengineers.com/sites/0050407500/Draft/Frenchies Soil and Groundwater Monitoring Assessment Report/[Frenchies Soil and GW Analytical Tables.xlsx]Table 4

FIGURES

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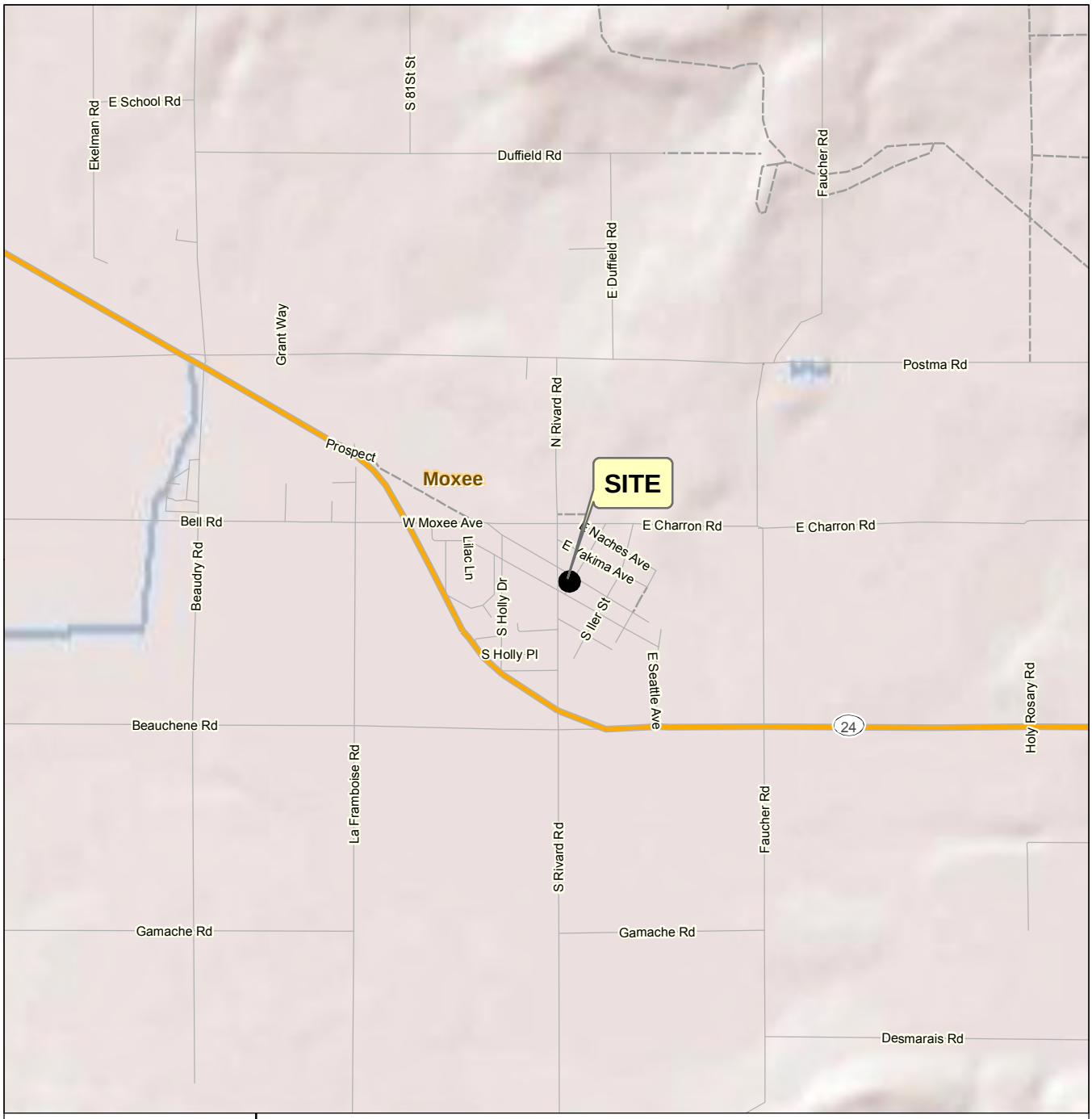

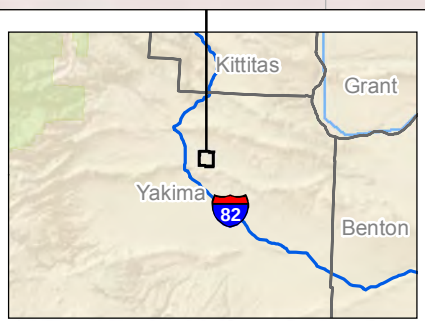

N
W E
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2,000 0 2,000
Feet

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

Vicinity Map

Frenchies' Fill-N-Food
Moxee, Washington

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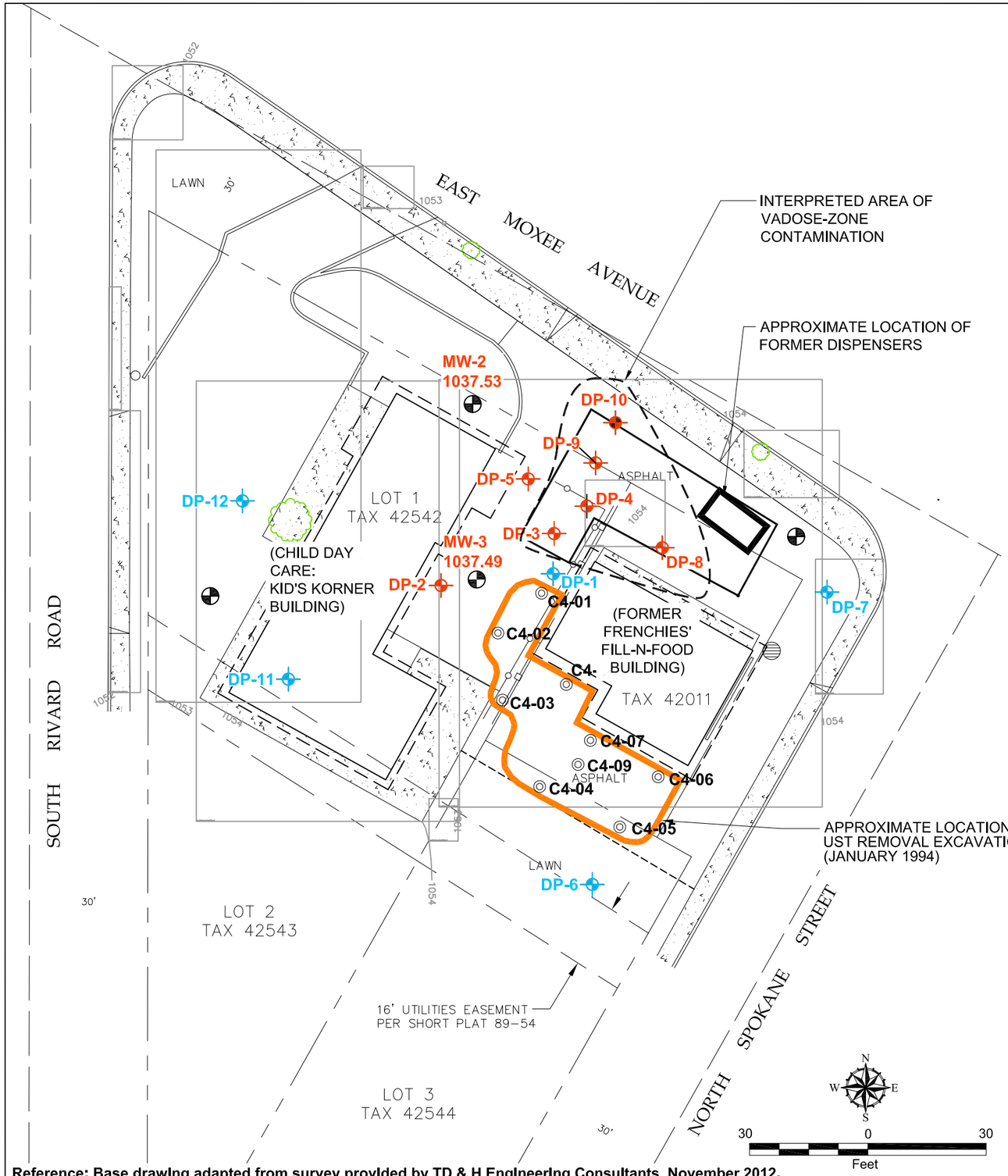
Figure 1

Office: SPO Path:W:\Spokane\Projects\0\0504075\GIS\00\0504075 00_F1_VicinityMap.mxd Map Revised: 12/14/2011 CRC



LEGEND

- Approximate Right-of-way (ROW)
- Approximate Parcel Boundary
- 1054 Contour Line
- MW-1 Groundwater Monitoring Well, (September 2012)
- DP-1 Approximate Location of Direct Push Boring (February 2012)
- DP-2 / MW-3 1037.49 GRPH and/or VOCs Detected in Soil Samples at Concentrations greater than MTCA Method A
- DP-1 / MW-1 1037.80 GRPH and VOCs either Not Detected or Detected in Soil Samples at Concentrations less than MTCA Method A
- C4-01 Location of UST closure sample (1994)
- Deciduous Tree
- Catch Basin
- Concrete Curb
- Concrete
- Edge of Asphalt
- Roof Line
- Chain Link Fence
- Guard Rail
- Approximate Location of 1994 UST Excavation

Reference: Base drawing adapted from survey provided by TD & H Engineering Consultants, November 2012.

Site Plan

Frenchies' Fill-N-Food
Moxee, Washington

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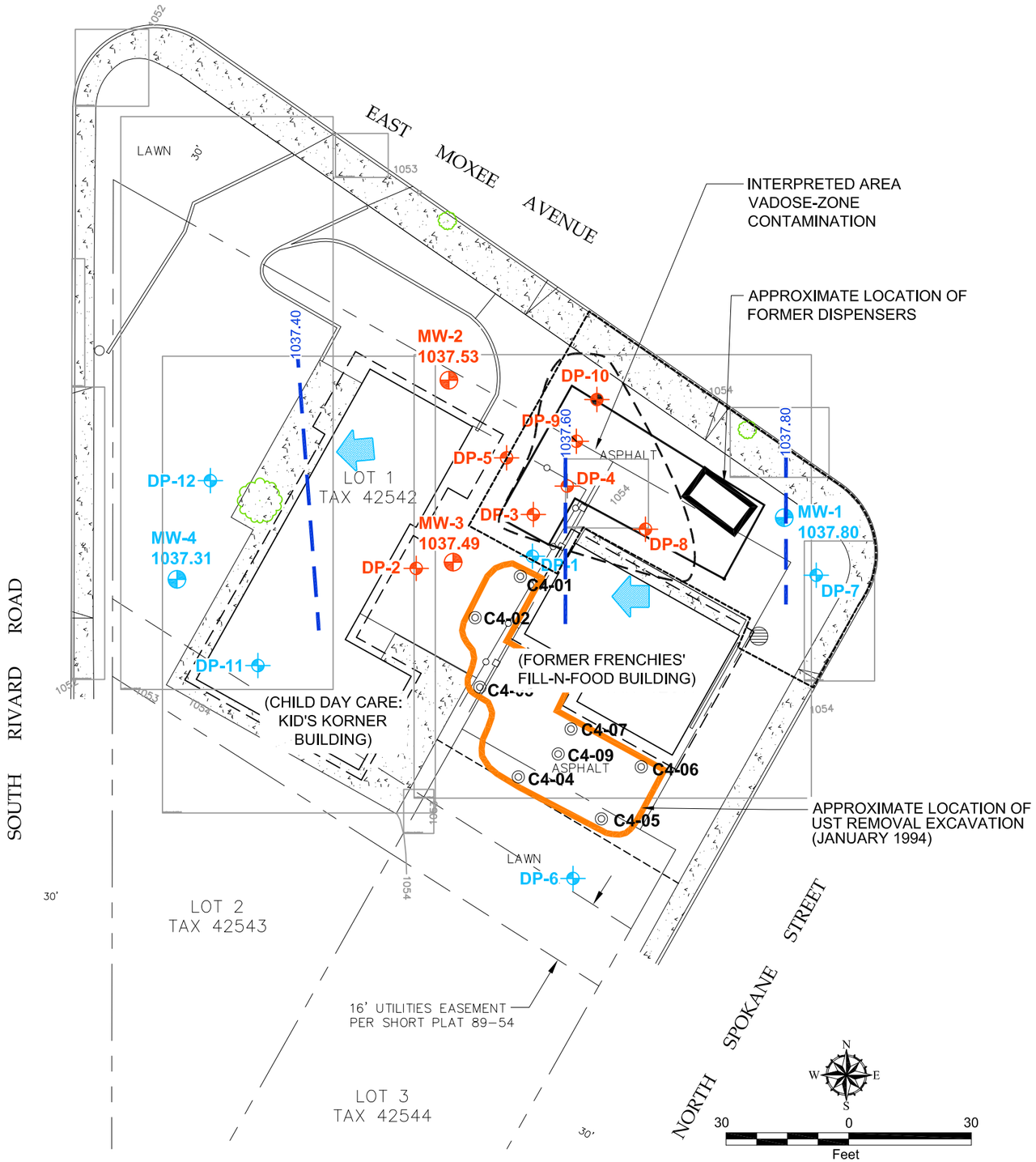
Figure 2



LEGEND

- Approximate Parcel Boundary
- MW-1 1037.80 — Groundwater Monitoring Well and Associated Groundwater Elevation
- DP-1 — Direct Push Boring Number and Approximate Location
- DP-2, MW-3 1037.49 — GRPH and/or VOCs Detected in Soil Samples at Concentrations greater than MTCA Method A
- DP-1, MW-1 1037.80 — GRPH and VOCs either Not Detected or Detected in Soil Samples at Concentrations less than MTCA Method A
- C4-01 — Location of UST closure sample (1994)
- Deciduous Tree
- Catch Basin
- Concrete Curb
- Concrete
- Edge of Asphalt
- Roof Line
- Chain Link Fence
- Guard Rail
- Approximate Location of 1994 UST Excavation
- 1037.80 — Approximate Groundwater Elevation Contour (0.2-foot interval)
- Interpreted Groundwater Flow Direction

Notes: Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).

Reference: Base drawing adapted from survey provided by TD & H Engineering Consultants, November 2012.

Groundwater Elevations
October 19, 2012

Frenchies' Fill-N-Food
Moxee, Washington

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Figure 3

APPENDICES

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APPENDIX A
Field Procedures and Boring Logs

APPENDIX A
FIELD PROCEDURES AND BORING LOGS

General

Subsurface conditions at the Frenchies' Fill-N-Food site were explored on September 25 and 26, 2012 by advancing four monitoring wells at the approximate locations shown on Figure 2. The monitoring wells were advanced about 22 feet below existing site grade using a hollow-stem auger drill rig. The horizontal and vertical locations of monitoring wells MW-1 through MW-4 were located by professional survey.

Field methods generally were performed in compliance with the project Sampling and Analysis Plan (SAP) dated February 1, 2012 (GeoEngineers, 2012B).

Soil Sample Collection

Where practicable, Environmental Protection Agency (EPA) 5035 sampling methods were used to collect the soil samples for gasoline-range petroleum hydrocarbon (GRPH), volatile organic compound (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 hollow-stem auger 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 monitoring wells was classified in general accordance with ASTM International (ASTM) D 2488 and the classification chart listed in Key to Exploration Logs, Figure A-1. Logs of the monitoring wells are presented in Logs of Monitoring Wells, Figures A-2 through A-5. The logs are based on interpretation of the field data and indicate the depth at which subsurface materials or their characteristics change, although these changes might actually be gradual.

Field Screening of Soil Samples

GeoEngineers' field representative performed field-screening tests on soil samples obtained from the monitoring wells. Field screening results were used as a general guideline to assess areas of possible petroleum-related contamination. The field screening methods used include: (1) visual screening; (2) water-sheen screening; and (3) headspace-vapor screening using a MiniRAE Photo Ionization Detector (PID) calibrated to isobutylene 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 (NS)	No visible sheen on the water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.

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

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

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

Monitoring Well Construction and Development

Monitoring wells MW-1 through MW-4 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 MW-1 through MW-4 are presented graphically in Figures A-2 through A-5, 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 QED Sample Pro portable bladder pump with disposable bladders. During purging activities, water quality parameters, including pH, conductivity, temperature, turbidity, oxidation-reduction potential and dissolved oxygen, were measured using an In-Situ Troll 9500 multi-parameter meter equipped with a flow-through cell; measurements were recorded approximately every three minutes. The meter calibration was verified at the beginning of each work day consistent with manufacturer recommendations prior to purging and sampling activities.

Groundwater samples were collected after (1) water quality parameters had stabilized; or (2) a maximum purge time of 30 minutes was achieved. During purging and sampling, purge rate was

not allowed to exceed 500 milliliters per minute. Water quality parameter stabilization criteria include the following:

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

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

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

SOIL CLASSIFICATION CHART

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

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

ADDITIONAL MATERIAL SYMBOLS

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

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

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

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

Laboratory / Field Tests

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

Sheen Classification

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

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

KEY TO EXPLORATION LOGS

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FIGURE A-1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
9/25/2012	9/25/2012	22	KAH / JER	Environmental West	Hollow-Stem Auger

Hammer Data	140 (lbs) / 30 (in) Drop	Drilling Equipment	Mobile B-90
Surface Elevation (ft) / Vertical Datum	1054.31 / NAVD88	Top of Casing Elevation (ft)	1053.91
Easting (X) / Northing (Y)	1669628.5314 / 445516.9131	Horizontal Datum	Washington State Plane Coordinate System, South Zone

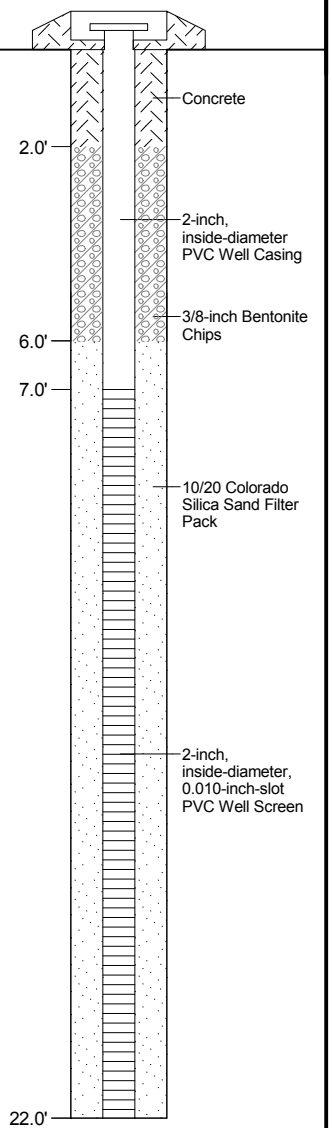
A 2 (in) well was installed on 9/25/2012 to a depth of 22 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
9/25/2012	18.7	1035.3

Notes:

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0							AC	Approximately 8 inches asphalt concrete pavement		
								SP-SM	Brown fine sand with silt and trace gravel (medium dense, moist)		
1050	5	12	28		1					NS	<10
1045	10	9	27		2 CA			SM	Brown silty fine sand (medium dense to dense, moist)	NS	<10
1040	15	18	46		3					NS	<10
1035	20										

WELL LOG



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

Log of Monitoring Well MW-1

GeoEngineers

Project: Frenchies' Fill-N-Food
Project Location: Moxee, Washington
Project Number: 0504-075-00

Figure A-2
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
9/25/2012	9/25/2012	22	KAH / JER	Environmental West	Hollow-Stem Auger

Hammer Data	140 (lbs) / 30 (in) Drop	Drilling Equipment	Mobile B-90
Surface Elevation (ft) / Vertical Datum	1054.03 / NAVD88	Top of Casing Elevation (ft)	1053.53
Easting (X) / Northing (Y)	1669546.4951 / 445550.4938	Horizontal Datum	Washington State Plane Coordinate System, South Zone

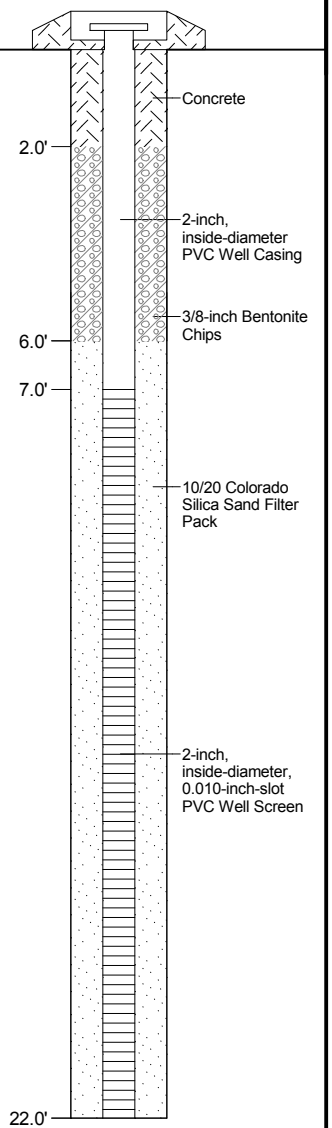
A 2 (in) well was installed on 9/25/2012 to a depth of 22 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
9/25/2012	17.9	1035.7

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0							SM	Brown silty fine sand (medium dense, moist)		
1050											
	5	12	11		1					NS	<10
1045											
	10	12	17		2					NS	<10
1040											
	15	12	54		3 CA			SM	Brown silty fine to coarse sand (very dense, moist)	NS	1019
1035						▽					
	20	18	51		4			SM	Brown silty fine sand (very dense, wet)	NS	<10

WELL LOG



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

Log of Monitoring Well MW-2

GeoEngineers

Project: Frenchies' Fill-N-Food
Project Location: Moxee, Washington
Project Number: 0504-075-00

Figure A-3
Sheet 1 of 1

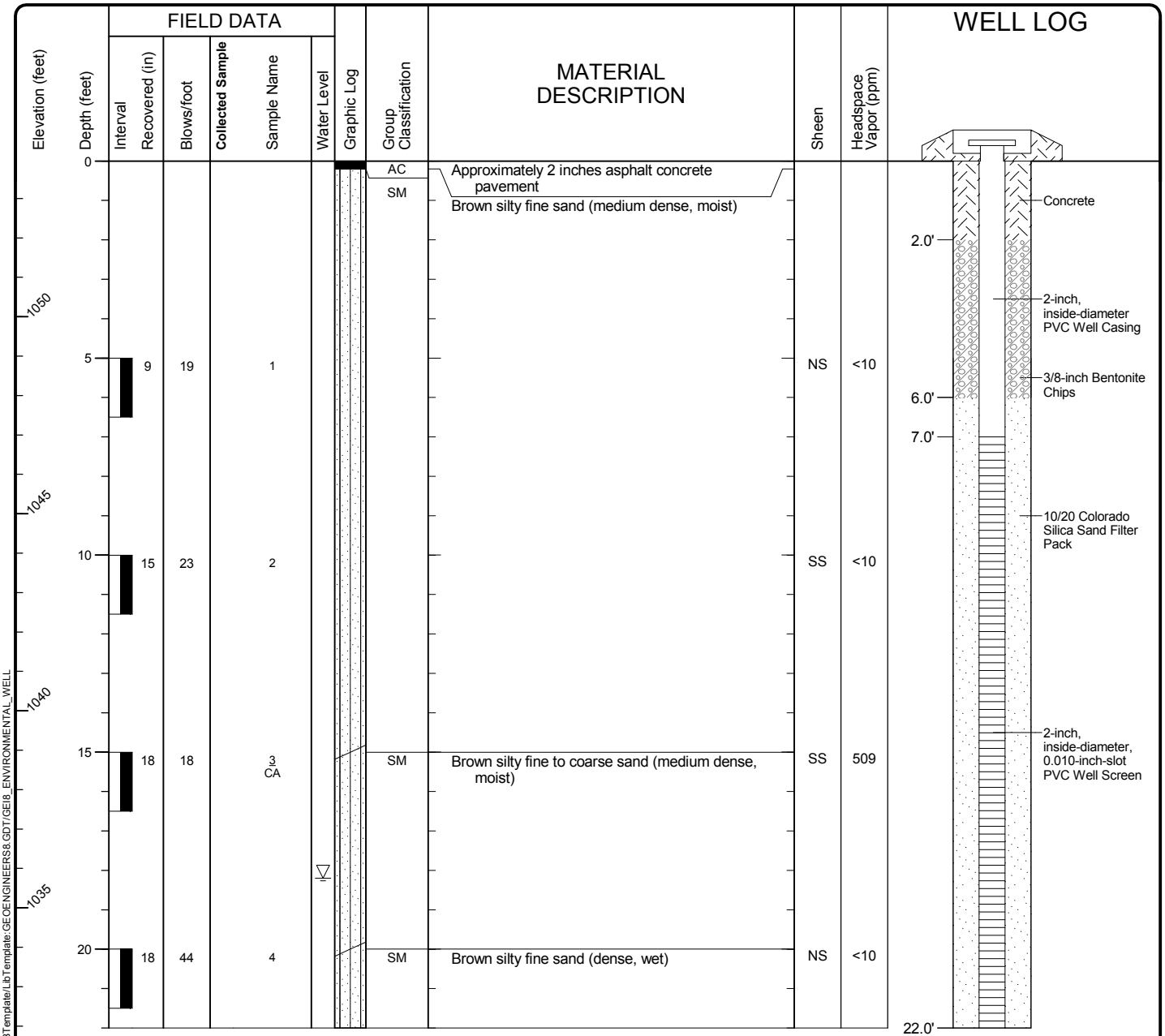
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	9/25/2012	9/25/2012	22	KAH	JER	Environmental West	Hollow-Stem Auger

Hammer Data	140 (lbs) / 30 (in) Drop	Drilling Equipment	Mobile B-90
Surface Elevation (ft)	1053.95	Top of Casing Elevation (ft)	1053.54
Vertical Datum	NAVD88		
Easting (X)	1669547.5414	Horizontal Datum	Washington State Plane Coordinate System, South Zone
Northing (Y)	445506.0355		

A 2 (in) well was installed on 9/25/2012 to a depth of 22 (ft).

Groundwater		
Date Measured	Depth to Water (ft)	Elevation (ft)
9/25/2012	18.2	1035.3

Notes:



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

Log of Monitoring Well MW-3

GeoEngineers

Project:	Frenchies' Fill-N-Food
Project Location:	Moxee, Washington
Project Number:	0504-075-00

Figure A-4
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
9/25/2012	9/25/2012	22	KAH / JER	Environmental West	Hollow-Stem Auger

Hammer Data	140 (lbs) / 30 (in) Drop	Drilling Equipment	Mobile B-90
Surface Elevation (ft) / Vertical Datum	1052.97 / NAVD88	Top of Casing Elevation (ft)	1052.57
Easting (X) / Northing (Y)	1669479.9925 / 445501.8313	Horizontal Datum	Washington State Plane Coordinate System, South Zone

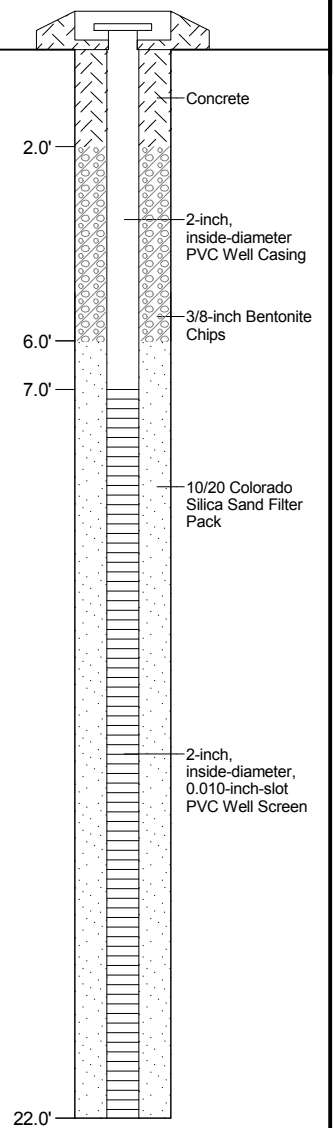
A 2 (in) well was installed on 9/25/2012 to a depth of 22 (ft).

Groundwater	Depth to Water (ft)	Elevation (ft)
Date Measured		
9/25/2012	14.0	1038.6

Notes:

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0							AC	Approximately 2 inches asphalt concrete pavement		
1050								SM	Brown silty fine sand (loose to dense, moist)		
	5	14	46		1					NS	<10
1045											
	10	12	7		2					NS	<10
					CA						
1040						▽					
	15	12	10		3			SM	Brown silty fine to medium sand with occasional gravel (medium dense, wet)	NS	<10
1035											
	20	18	37		4			SM	Brown silty sand (dense, wet)	NS	<10

WELL LOG



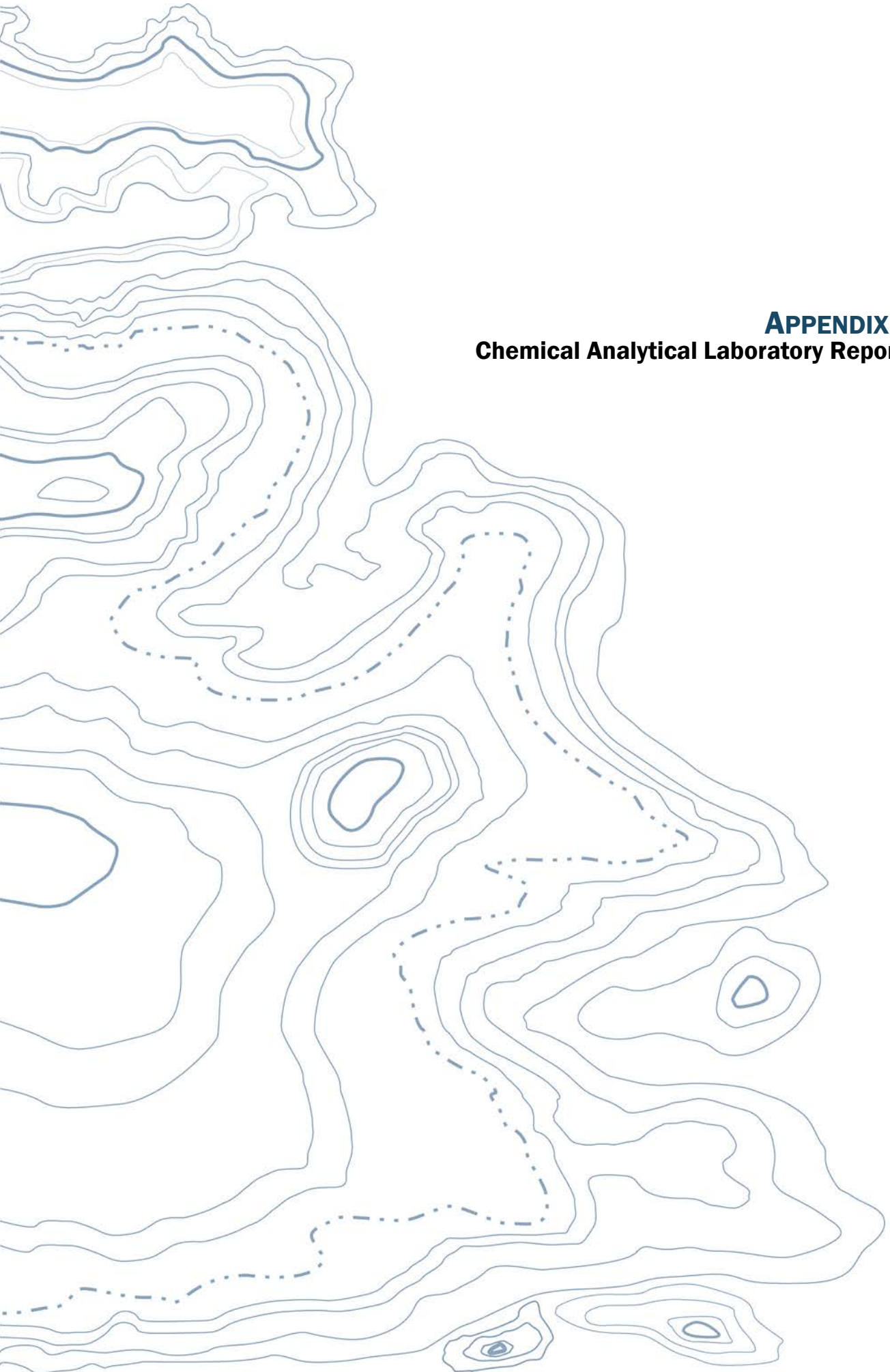
Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-4

GeoEngineers

Project:	Frenchies' Fill-N-Food
Project Location:	Moxee, Washington
Project Number:	0504-075-00

Figure A-5
Sheet 1 of 1



APPENDIX B
Chemical Analytical Laboratory Reports

APPENDIX B
CHEMICAL ANALYTICAL LABORATORY REPORTS

Samples

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

Analytical Data Review

The laboratory maintains an internal quality assurance/quality control (QA/QC) program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike (MS) recoveries, matrix spike duplicate (MSD) recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted the following exceptions in their laboratory report associated with project soil samples, dated October 5, 2012.

- The following surrogate recoveries were outside of acceptance limits because of sample matrix and/or interference effects:
    - 4-bromofluorobenzene associated with samples MW-2(15) and MW-3(15).

The laboratory noted the following exception in their laboratory report associated with project groundwater samples, dated November 6, 2012.

- Calibration Verification recovery was above the method control limit for gasoline-range petroleum hydrocarbons (GRPH) in samples MW-1-101912 and MW-4-101912. Because the analyte was not detected, the laboratory indicated that the data were not impacted.
- Due to the low levels of analyte in the sample Duplicate-1-101912, the duplicate relative percent difference (RPD) calculation does not provide useful information.
- Samples MW-1-101912, MW-2-101912, MW-3-101912 and MW-4-101912 were received and analyzed for Nitrate-Nitrogen using EPA 300.0 past holding time.

Analytical Data Review Summary

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: SVJ0003
Client Project/Site: 0504-075-00
Client Project Description: Frenchies Fill-n-Food

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

Attn: Jon Rudders

Authorized for release by:
10/5/2012 3:43:23 PM

Randee Decker
Project Manager
Randee.Decker@testamericainc.com

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Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SVJ0003-02	MW-1(10)	Soil	09/25/12 11:39	09/28/12 16:30
SVJ0003-06	MW-2(15)	Soil	09/25/12 13:37	09/28/12 16:30
SVJ0003-09	MW-3(15)	Soil	09/25/12 15:21	09/28/12 16:30
SVJ0003-13	MW-4(11)	Soil	09/25/12 16:41	09/28/12 16:30

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Client Sample ID: MW-1(10)

Date Collected: 09/25/12 11:39
Date Received: 09/28/12 16:30

Lab Sample ID: SVJ0003-02

Matrix: Soil
Percent Solids: 96

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		4.94		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
Methyl tert-butyl ether	ND		0.00593		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
Benzene	ND		0.00494		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
Ethylbenzene	ND		0.0989		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
Toluene	ND		0.0989		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
o-Xylene	ND		0.198		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
m,p-Xylene	ND		0.395		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00
Xylenes (total)	ND		1.48		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*42.4 - 163*	*10/01/12 13:13*	*10/01/12 17:14*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*10/01/12 13:13*	*10/01/12 17:14*	*1.00*
4-bromofluorobenzene	*106*		*41.5 - 162*	*10/01/12 13:13*	*10/01/12 17:14*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0103		mg/kg dry	☼	10/01/12 12:47	10/02/12 09:50	1.00
2-Methylnaphthalene	ND		0.0103		mg/kg dry	☼	10/01/12 12:47	10/02/12 09:50	1.00
1-Methylnapthalene	ND		0.0103		mg/kg dry	☼	10/01/12 12:47	10/02/12 09:50	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82.4*		*54 - 129*	*10/01/12 12:47*	*10/02/12 09:50*	*1.00*
2-FBP	*79.8*		*64.2 - 121*	*10/01/12 12:47*	*10/02/12 09:50*	*1.00*
p-Terphenyl-d14	*98.8*		*27.5 - 140*	*10/01/12 12:47*	*10/02/12 09:50*	*1.00*

Client Sample ID: MW-2(15)

Date Collected: 09/25/12 13:37
Date Received: 09/28/12 16:30

Lab Sample ID: SVJ0003-06

Matrix: Soil
Percent Solids: 71.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0106		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00
Benzene	**0.128**		0.00886		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00
Ethylbenzene	**4.63**		0.177		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00
Toluene	ND		0.177		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00
o-Xylene	ND		0.354		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00
m,p-Xylene	**5.95**		0.709		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00
Xylenes (total)	**5.95**		2.66		mg/kg dry	☼	10/01/12 13:13	10/01/12 17:37	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*104*		*42.4 - 163*	*10/01/12 13:13*	*10/01/12 17:37*	*1.00*
Toluene-d8	*108*		*45.8 - 155*	*10/01/12 13:13*	*10/01/12 17:37*	*1.00*
4-bromofluorobenzene	*549*	*ZX*	*41.5 - 162*	*10/01/12 13:13*	*10/01/12 17:37*	*1.00*

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**3800**		88.6		mg/kg dry	☼	10/01/12 13:13	10/02/12 10:20	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*42.4 - 163*	*10/01/12 13:13*	*10/02/12 10:20*	*10.0*
Toluene-d8	*119*		*45.8 - 155*	*10/01/12 13:13*	*10/02/12 10:20*	*10.0*
4-bromofluorobenzene	*150*		*41.5 - 162*	*10/01/12 13:13*	*10/02/12 10:20*	*10.0*

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Client Sample ID: MW-2(15)

Lab Sample ID: SVJ0003-06

Date Collected: 09/25/12 13:37

Matrix: Soil

Date Received: 09/28/12 16:30

Percent Solids: 71.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.123**		0.0138		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:03	1.00
2-Methylnaphthalene	**0.0876**		0.0138		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:03	1.00
1-Methylnapthalene	**0.508**		0.0138		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*81.2*		*54 - 129*	*10/01/12 12:47*	*10/02/12 11:03*	*1.00*
2-FBP	*83.6*		*64.2 - 121*	*10/01/12 12:47*	*10/02/12 11:03*	*1.00*
p-Terphenyl-d14	*102*		*27.5 - 140*	*10/01/12 12:47*	*10/02/12 11:03*	*1.00*

Client Sample ID: MW-3(15)

Lab Sample ID: SVJ0003-09

Date Collected: 09/25/12 15:21

Matrix: Soil

Date Received: 09/28/12 16:30

Percent Solids: 72.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**474**		8.31		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
Methyl tert-butyl ether	ND		0.00998		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
Benzene	ND		0.00831		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
Ethylbenzene	ND		0.166		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
Toluene	ND		0.166		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
o-Xylene	ND		0.333		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
m,p-Xylene	ND		0.665		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00
Xylenes (total)	ND		2.49		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:01	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*42.4 - 163*	*10/01/12 13:13*	*10/01/12 18:01*	*1.00*
Toluene-d8	*118*		*45.8 - 155*	*10/01/12 13:13*	*10/01/12 18:01*	*1.00*
4-bromofluorobenzene	*165*	*ZX*	*41.5 - 162*	*10/01/12 13:13*	*10/01/12 18:01*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0132		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:27	1.00
2-Methylnaphthalene	ND		0.0132		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:27	1.00
1-Methylnapthalene	ND		0.0132		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:27	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*81.0*		*54 - 129*	*10/01/12 12:47*	*10/02/12 11:27*	*1.00*
2-FBP	*83.2*		*64.2 - 121*	*10/01/12 12:47*	*10/02/12 11:27*	*1.00*
p-Terphenyl-d14	*105*		*27.5 - 140*	*10/01/12 12:47*	*10/02/12 11:27*	*1.00*

Client Sample ID: MW-4(11)

Lab Sample ID: SVJ0003-13

Date Collected: 09/25/12 16:41

Matrix: Soil

Date Received: 09/28/12 16:30

Percent Solids: 73

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		8.30		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00
Methyl tert-butyl ether	ND		0.00996		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00
Benzene	ND		0.00830		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00
Ethylbenzene	ND		0.166		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00
Toluene	ND		0.166		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00
o-Xylene	ND		0.332		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Client Sample ID: MW-4(11)
Date Collected: 09/25/12 16:41
Date Received: 09/28/12 16:30

Lab Sample ID: SVJ0003-13
Matrix: Soil
Percent Solids: 73

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		0.664		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00
Xylenes (total)	ND		2.49		mg/kg dry	☼	10/01/12 13:13	10/01/12 18:25	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*42.4 - 163*	*10/01/12 13:13*	*10/01/12 18:25*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*10/01/12 13:13*	*10/01/12 18:25*	*1.00*
4-bromofluorobenzene	*109*		*41.5 - 162*	*10/01/12 13:13*	*10/01/12 18:25*	*1.00*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0130		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:51	1.00
2-Methylnaphthalene	ND		0.0130		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:51	1.00
1-Methylnapthalene	ND		0.0130		mg/kg dry	☼	10/01/12 12:47	10/02/12 11:51	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*73.2*		*54 - 129*	*10/01/12 12:47*	*10/02/12 11:51*	*1.00*
2-FBP	*72.2*		*64.2 - 121*	*10/01/12 12:47*	*10/02/12 11:51*	*1.00*
p-Terphenyl-d14	*87.6*		*27.5 - 140*	*10/01/12 12:47*	*10/02/12 11:51*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

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

Lab Sample ID: 12J0003-BLK1
Matrix: Soil
Analysis Batch: 12J0003

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12J0003_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Methyl tert-butyl ether	ND		0.00600		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Benzene	ND		0.00500		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Ethylbenzene	ND		0.100		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Toluene	ND		0.100		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
o-Xylene	ND		0.200		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
m,p-Xylene	ND		0.400		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Naphthalene	ND		0.200		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Xylenes (total)	ND		1.50		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00
Hexane	ND		0.100		mg/kg wet		10/01/12 13:13	10/01/12 15:39	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*42.4 - 163*	*10/01/12 13:13*	*10/01/12 15:39*	*1.00*
Toluene-d8	*111*		*45.8 - 155*	*10/01/12 13:13*	*10/01/12 15:39*	*1.00*
4-bromofluorobenzene	*107*		*41.5 - 162*	*10/01/12 13:13*	*10/01/12 15:39*	*1.00*

Lab Sample ID: 12J0003-BS1
Matrix: Soil
Analysis Batch: 12J0003

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0003_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	50.0	45.7		mg/kg wet		91.4	74.4 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*103*		*42.4 - 163*
Toluene-d8	*112*		*45.8 - 155*
4-bromofluorobenzene	*108*		*41.5 - 162*

Lab Sample ID: 12J0003-BS2
Matrix: Soil
Analysis Batch: 12J0003

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0003_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.480		mg/kg wet		96.1	79 - 127
Benzene	0.500	0.472		mg/kg wet		94.5	75.9 - 123
Ethylbenzene	0.500	0.482		mg/kg wet		96.4	80.7 - 112
Toluene	0.500	0.488		mg/kg wet		97.5	77.3 - 126
o-Xylene	0.500	0.494		mg/kg wet		98.8	85.3 - 117
m,p-Xylene	1.00	0.968		mg/kg wet		96.8	86.1 - 116
Naphthalene	0.500	0.616		mg/kg wet		123	58.8 - 130
Xylenes (total)	1.50	1.46		mg/kg wet		97.5	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*106*		*42.4 - 163*
Toluene-d8	*111*		*45.8 - 155*
4-bromofluorobenzene	*108*		*41.5 - 162*

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

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

Lab Sample ID: 12J0003-BS3
Matrix: Soil
Analysis Batch: 12J0003

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0003_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hexane			0.500	0.440		mg/kg wet		87.9	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*100*		*42.4 - 163*
Toluene-d8	*107*		*45.8 - 155*
4-bromofluorobenzene	*108*		*41.5 - 162*

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

Lab Sample ID: 12J0002-BLK1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12J0002_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
1-Methylnapthalene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Acenaphthene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Fluorene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Phenanthrene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Anthracene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Fluoranthene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Pyrene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Chrysene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Dibenzo (a,h) anthracene	ND		0.00600		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		10/01/12 12:47	10/01/12 15:05	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*99.8*		*54 - 129*	*10/01/12 12:47*	*10/01/12 15:05*	*1.00*
2-FBP	*77.6*		*64.2 - 121*	*10/01/12 12:47*	*10/01/12 15:05*	*1.00*
p-Terphenyl-d14	*100*		*27.5 - 140*	*10/01/12 12:47*	*10/01/12 15:05*	*1.00*

Lab Sample ID: 12J0002-BS1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0002_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			0.133	0.109		mg/kg wet		82.0	59 - 100		
Fluorene			0.133	0.115		mg/kg wet		86.5	52.8 - 115		
Chrysene			0.133	0.120		mg/kg wet		90.0	61.4 - 122		

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

Lab Sample ID: 12J0002-BS1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0002_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Indeno (1,2,3-cd) pyrene			0.133	0.126		mg/kg wet		94.5	61.5 - 147		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*79.2*		*54 - 129*
2-FBP	*74.0*		*64.2 - 121*
p-Terphenyl-d14	*95.0*		*27.5 - 140*

Lab Sample ID: 12J0002-BSD1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12J0002_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			0.133	0.132		mg/kg wet		99.0	59 - 100	18.8	35
Fluorene			0.133	0.135		mg/kg wet		102	52.8 - 115	16.0	35
Chrysene			0.133	0.133		mg/kg wet		100	61.4 - 122	10.5	35
Indeno (1,2,3-cd) pyrene			0.133	0.145		mg/kg wet		109	61.5 - 147	13.8	35

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Nitrobenzene-d5	*94.2*		*54 - 129*
2-FBP	*91.2*		*64.2 - 121*
p-Terphenyl-d14	*106*		*27.5 - 140*

Lab Sample ID: 12J0002-MS1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: MW-1(10)
Prep Type: Total
Prep Batch: 12J0002_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene	ND		0.148	0.133		mg/kg dry	☼	90.0	30 - 120		
Fluorene	ND		0.148	0.153		mg/kg dry	☼	104	30 - 140		
Chrysene	0.00344		0.148	0.147		mg/kg dry	☼	97.2	30 - 133		
Indeno (1,2,3-cd) pyrene	ND		0.148	0.140		mg/kg dry	☼	95.0	30 - 140		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*82.6*		*54 - 129*
2-FBP	*82.0*		*64.2 - 121*
p-Terphenyl-d14	*103*		*27.5 - 140*

Lab Sample ID: 12J0002-MSD1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: MW-1(10)
Prep Type: Total
Prep Batch: 12J0002_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		0.147	0.134		mg/kg dry	☼	91.0	30 - 120	0.822	35
Fluorene	ND		0.147	0.154		mg/kg dry	☼	104	30 - 140	0.678	35
Chrysene	0.00344		0.147	0.142		mg/kg dry	☼	94.2	30 - 133	3.34	35
Indeno (1,2,3-cd) pyrene	ND		0.147	0.147		mg/kg dry	☼	100	30 - 140	4.85	35

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

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

Lab Sample ID: 12J0002-MSD1
Matrix: Soil
Analysis Batch: 12J0002

Client Sample ID: MW-1(10)
Prep Type: Total
Prep Batch: 12J0002_P

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Nitrobenzene-d5	*86.0*		*54 - 129*
2-FBP	*86.0*		*64.2 - 121*
p-Terphenyl-d14	*102*		*27.5 - 140*

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Client Sample ID: MW-1(10)

Lab Sample ID: SVJ0003-02

Date Collected: 09/25/12 11:39
Matrix: Soil
Date Received: 09/28/12 16:30
Percent Solids: 96

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.909	12J0003_P	10/01/12 13:13	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0003	10/01/12 17:14	CBW	TAL SPK
Total	Prep	EPA 3550B		0.991	12J0002_P	10/01/12 12:47	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0002	10/02/12 09:50	MS	TAL SPK
Total	Prep	Wet Chem		1.00	12J0015_P	10/01/12 16:12	MS	TAL SPK
Total	Analysis	TA SOP		1.00	12J0015	10/03/12 15:52	MS	TAL SPK

Client Sample ID: MW-2(15)

Lab Sample ID: SVJ0003-06

Date Collected: 09/25/12 13:37
Matrix: Soil
Date Received: 09/28/12 16:30
Percent Solids: 71.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.977	12J0003_P	10/01/12 13:13	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0003	10/01/12 17:37	CBW	TAL SPK
Total	Prep	GC/MS Volatiles	RE1	0.977	12J0003_P	10/01/12 13:13	CBW	TAL SPK
Total	Analysis	EPA 8260C	RE1	10.0	12J0003	10/02/12 10:20	CBW	TAL SPK
Total	Prep	EPA 3550B		0.986	12J0002_P	10/01/12 12:47	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0002	10/02/12 11:03	MS	TAL SPK
Total	Prep	Wet Chem		1.00	12J0015_P	10/01/12 16:12	MS	TAL SPK
Total	Analysis	TA SOP		1.00	12J0015	10/03/12 15:52	MS	TAL SPK

Client Sample ID: MW-3(15)

Lab Sample ID: SVJ0003-09

Date Collected: 09/25/12 15:21
Matrix: Soil
Date Received: 09/28/12 16:30
Percent Solids: 72.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.923	12J0003_P	10/01/12 13:13	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0003	10/01/12 18:01	CBW	TAL SPK
Total	Prep	EPA 3550B		0.956	12J0002_P	10/01/12 12:47	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0002	10/02/12 11:27	MS	TAL SPK
Total	Prep	Wet Chem		1.00	12J0015_P	10/01/12 16:12	MS	TAL SPK
Total	Analysis	TA SOP		1.00	12J0015	10/03/12 15:52	MS	TAL SPK

Client Sample ID: MW-4(11)

Lab Sample ID: SVJ0003-13

Date Collected: 09/25/12 16:41
Matrix: Soil
Date Received: 09/28/12 16:30
Percent Solids: 73

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.942	12J0003_P	10/01/12 13:13	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0003	10/01/12 18:25	CBW	TAL SPK
Total	Prep	EPA 3550B		0.946	12J0002_P	10/01/12 12:47	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0002	10/02/12 11:51	MS	TAL SPK
Total	Prep	Wet Chem		1.00	12J0015_P	10/01/12 16:12	MS	TAL SPK
Total	Analysis	TA SOP		1.00	12J0015	10/03/12 15:52	MS	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

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: 0504-075-00

TestAmerica Job ID: SVJ0003

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	10-31-12
Washington	State Program	10	C569	01-06-13

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0003

Method	Method Description	Protocol	Laboratory
EPA 8260C	NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8270 mod.	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

CHAIN OF CUSTODY REPORT

Work Order #: SNJ0008

CLIENT: GeoEngineers

INVOICE TO: Jon Rudders, GeoEngineers

REPORT TO: Jon Rudders
ADDRESS: 523 E. 2nd Ave, Spokane, WA 99202
PHONE: 509-363-3125 FAX: 509-363-3126

P.O. NUMBER:

PROJECT NAME: Frenchies Fill-N-Food
PROJECT NUMBER: 0504-075-00
SAMPLED BY: Katie Hall

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

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		PRESERVATIVE	REQUESTED ANALYSES: GRPH	NWTPH-Gx/BTEX EPA 8260C	MTBE EPA 8260C	Naphthalenes* EPA 8270C SIM	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-1(6)	9/25/12	1130						S	3		
2	MW-1(10)	9/25/12	1139		X	X	X	X	S	3		
3	MW-1(16)	9/25/12	1150						S	3		
4	MW-2(6)	9/25/12	1321						S	3		
5	MW-2(10)	9/25/12	1329						S	3		
6	MW-2(15)	9/25/12	1337		X	X	X	X	S	3		
7	MW-2(21)	9/25/12	1349						S	3		
8	MW-3(5)	9/25/12	1504						S	3		
9	MW-3(15)	9/25/12	1521		X	X	X	X	S	3		
10	MW-3(11.2)	9/25/12	1511						S	3		

RELEASED BY: [signature] PRINT NAME: Katie Hall FIRM: GE DATE: 9/28/12 TIME: 1545
RECEIVED BY: Cat Stapleton PRINT NAME: Cat Stapleton FIRM: TestAmerica DATE: 9-28-12 TIME: 1650

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

ADDITIONAL REMARKS:
* NAPHTHALENES - INCLUDING NAPHTHALENE, 1-METHYLNAPHTHALENE, AND 2-METHYLNAPHTHALENE

TEMP: 38

TAL-1000(0408)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

CHAIN OF CUSTODY REPORT

Work Order #: SNS0008

CLIENT: GEO ENGINEERS

INVOICE TO: JON RUDERS, GEO ENGINEERS

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

P.O. NUMBER:

PROJECT NAME: FRENCHIES FILL-N-FOOD
PROJECT NUMBER: 0504-075-00
SAMPLED BY: KATIE HALL

TURNAROUND REQUEST in Business Days *

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

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

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: GRPH NWTPH-GX	BTEX EPA 8260C	MTBE EPA 8260C	* NAPHTHALENES EPA 8270D SIM	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-3 (21.5)	9/25/12 1530						S	3		
2	MW-4 (6)	9/25/12 1635						S	3		
3	MW-4 (11)	9/25/12 1641		X	X	X	X	S	3		
4	MW-4 (16)	9/25/12 1650						S	3		
5	MW-4 (21.5)	9/25/12 1701						S	3		
6											
7											
8											
9											
10											

RELEASED BY:		DATE: 9/28/12	RECEIVED BY: Cat Stapleton	DATE: 9-28-12	
PRINT NAME: KATIE HALL	FIRM: GEI	TIME: 1545	PRINT NAME:	FIRM: TestAmerica	TIME: 16:30
RELEASED BY:		DATE:	RECEIVED BY:	DATE:	
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:
* NAPHTHALENES - INCLUDING, NAPHTHALENE, 1-METHYLNAPHTHALENE, AND 2-METHYLNAPHTHALENE

TEMP: 38

TAL-1000(0408)

10/5/2012

TestAmerica Spokane
Sample Receipt Form

Work Order #: SNS0003	Client: GeoEngineers	Project: Frenchies
Date/Time Received: 9-28-12 16:30	By: CS	

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

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

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

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

Temperature by IR Gun: 3.8 °C Thermometer Serial #81500 (acceptance criteria 0-6 °C)

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

Log-in Phase Date/Time: 10-1-12 10:15 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)			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

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ANALYTICAL REPORT

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

TestAmerica Job ID: SVJ0177
Client Project/Site: 0504-075-00
Client Project Description: Frenchies Fill-n-Food

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

Attn: Jon Rudders

Authorized for release by:
11/6/2012 9:01:22 AM

Randee Decker
Project Manager
Randee.Decker@testamericainc.com

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Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SVJ0177-01	MW-1-101912	Water	10/19/12 13:10	10/22/12 13:15
SVJ0177-02	MW-2-101912	Water	10/19/12 12:09	10/22/12 13:15
SVJ0177-03	MW-3-101912	Water	10/19/12 11:00	10/22/12 13:15
SVJ0177-04	MW-4-101912	Water	10/19/12 14:04	10/22/12 13:15
SVJ0177-05	Duplicate-1-101912	Water	10/19/12 12:34	10/22/12 13:15
SVJ0177-06	Trip Blank	Water	09/20/12 00:00	10/22/12 13:15

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Qualifiers

GCMS Volatiles

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

Metals

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

Wet Chem

Qualifier	Qualifier Description
H3	Sample was received and analyzed past holding time.

Glossary

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

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: MW-1-101912
Date Collected: 10/19/12 13:10
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-01
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND	C	90.0		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
Methyl tert-butyl ether	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
Benzene	ND		0.200		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
Ethylbenzene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
m,p-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
o-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
Xylenes (total)	ND		1.50		ug/l		10/23/12 11:41	10/23/12 18:16	1.00
Hexane	ND		1.00		ug/l		10/23/12 11:41	10/23/12 18:16	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*111*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 18:16*	*1.00*
Toluene-d8	*107*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 18:16*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 18:16*	*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		0.0100		ug/l		10/24/12 13:02	10/24/12 14:43	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.219		ug/l		10/26/12 08:35	10/26/12 14:32	1.00
2-Methylnaphthalene	ND		0.219		ug/l		10/26/12 08:35	10/26/12 14:32	1.00
1-Methylnapthalene	ND		0.219		ug/l		10/26/12 08:35	10/26/12 14:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*72.1*		*31.6 - 137*	*10/26/12 08:35*	*10/26/12 14:32*	*1.00*
2-FBP	*80.9*		*35.1 - 129*	*10/26/12 08:35*	*10/26/12 14:32*	*1.00*
p-Terphenyl-d14	*103*		*0 - 149*	*10/26/12 08:35*	*10/26/12 14:32*	*1.00*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L			10/26/12 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*105*		*62 - 124*		*10/26/12 13:06*	*1*

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**0.881**		0.0100		mg/l		10/29/12 09:17	11/01/12 16:44	1.00

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0150		mg/l		11/01/12 18:19	11/05/12 14:58	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**10.9**	**H3**	0.200		mg/l		10/23/12 07:48	10/23/12 10:55	1.00
Sulfate	**199**		5.00		mg/l		10/23/12 07:48	10/23/12 13:24	10.0

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: MW-1-101912

Lab Sample ID: SVJ0177-01

Date Collected: 10/19/12 13:10

Matrix: Water

Date Received: 10/22/12 13:15

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**695**		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00

Client Sample ID: MW-2-101912

Lab Sample ID: SVJ0177-02

Date Collected: 10/19/12 12:09

Matrix: Water

Date Received: 10/22/12 13:15

Method: EPA 8260C - NWTPH-Gx and 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		10/23/12 11:41	10/23/12 18:39	1.00
Benzene	**1.07**		0.200		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
Ethylbenzene	**1.28**		0.500		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
m,p-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
o-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
Xylenes (total)	ND		1.50		ug/l		10/23/12 11:41	10/23/12 18:39	1.00
Hexane	ND		1.00		ug/l		10/23/12 11:41	10/23/12 18:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 18:39*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 18:39*	*1.00*
4-bromofluorobenzene	*108*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 18:39*	*1.00*

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**1030**		90.0		ug/l		10/23/12 11:41	10/24/12 13:41	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*10/23/12 11:41*	*10/24/12 13:41*	*1.00*
Toluene-d8	*111*		*74.1 - 135*	*10/23/12 11:41*	*10/24/12 13:41*	*1.00*
4-bromofluorobenzene	*111*		*68.7 - 141*	*10/23/12 11:41*	*10/24/12 13:41*	*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		0.0100		ug/l		10/24/12 13:02	10/24/12 14:55	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.397**		0.220		ug/l		10/26/12 08:35	10/26/12 14:56	1.00
2-Methylnaphthalene	ND		0.220		ug/l		10/26/12 08:35	10/26/12 14:56	1.00
1-Methylnapthalene	**0.364**		0.220		ug/l		10/26/12 08:35	10/26/12 14:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*67.8*		*31.6 - 137*	*10/26/12 08:35*	*10/26/12 14:56*	*1.00*
2-FBP	*73.5*		*35.1 - 129*	*10/26/12 08:35*	*10/26/12 14:56*	*1.00*
p-Terphenyl-d14	*100*		*0 - 149*	*10/26/12 08:35*	*10/26/12 14:56*	*1.00*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.00598**		0.00500		mg/L			10/26/12 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*80*		*62 - 124*		*10/26/12 13:08*	*1*

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: MW-2-101912

Date Collected: 10/19/12 12:09
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-02
Matrix: Water

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2.61**		0.0100		mg/l		10/29/12 09:17	11/01/12 19:39	1.00

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0150		mg/l		11/01/12 18:19	11/05/12 15:02	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND	H3	0.200		mg/l		10/23/12 07:48	10/23/12 13:43	1.00
Sulfate	**78.2**		5.00		mg/l		10/23/12 07:48	10/23/12 13:43	10.0

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**785**		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00

Client Sample ID: MW-3-101912

Date Collected: 10/19/12 11:00
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-03
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
Benzene	**71.6**		0.200		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
Ethylbenzene	**2.88**		0.500		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
m,p-Xylene	**3.30**		0.500		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
o-Xylene	**0.680**		0.500		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
1,2-Dichloroethane (EDC)	**4.07**		0.500		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
Xylenes (total)	**3.98**		1.50		ug/l		10/23/12 11:41	10/23/12 19:03	1.00
Hexane	**30.4**		1.00		ug/l		10/23/12 11:41	10/23/12 19:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*110*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 19:03*	*1.00*
Toluene-d8	*113*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 19:03*	*1.00*
4-bromofluorobenzene	*109*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 19:03*	*1.00*

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**5640**		900		ug/l		10/23/12 11:41	10/24/12 14:05	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*10/23/12 11:41*	*10/24/12 14:05*	*10.0*
Toluene-d8	*110*		*74.1 - 135*	*10/23/12 11:41*	*10/24/12 14:05*	*10.0*
4-bromofluorobenzene	*106*		*68.7 - 141*	*10/23/12 11:41*	*10/24/12 14:05*	*10.0*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.0100		ug/l		10/24/12 13:02	10/24/12 15:07	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.222		ug/l		10/26/12 08:35	10/26/12 15:20	1.00
2-Methylnaphthalene	ND		0.222		ug/l		10/26/12 08:35	10/26/12 15:20	1.00

Client Sample ID: MW-3-101912

Lab Sample ID: SVJ0177-03

Date Collected: 10/19/12 11:00

Matrix: Water

Date Received: 10/22/12 13:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnapthalene	**3.30**		0.222		ug/l		10/26/12 08:35	10/26/12 15:20	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*58.5*		*31.6 - 137*	*10/26/12 08:35*	*10/26/12 15:20*	*1.00*
2-FBP	*88.7*		*35.1 - 129*	*10/26/12 08:35*	*10/26/12 15:20*	*1.00*
p-Terphenyl-d14	*109*		*0 - 149*	*10/26/12 08:35*	*10/26/12 15:20*	*1.00*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.0136**		0.00500		mg/L			10/26/12 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*86*		*62 - 124*		*10/26/12 13:10*	*1*

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**0.933**		0.0100		mg/l		10/29/12 09:17	11/01/12 19:44	1.00

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0150		mg/l		11/01/12 18:19	11/05/12 15:06	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND	H3	0.200		mg/l		10/23/12 07:48	10/23/12 11:32	1.00
Sulfate	**3.76**		0.500		mg/l		10/23/12 07:48	10/23/12 11:32	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	**1140**		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00

Client Sample ID: MW-4-101912

Lab Sample ID: SVJ0177-04

Date Collected: 10/19/12 14:04

Matrix: Water

Date Received: 10/22/12 13:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND	C	90.0		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
Methyl tert-butyl ether	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
Benzene	ND		0.200		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
Ethylbenzene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
m,p-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
o-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
1,2-Dichloroethane (EDC)	**1.78**		0.500		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
Xylenes (total)	ND		1.50		ug/l		10/23/12 11:41	10/23/12 19:27	1.00
Hexane	ND		1.00		ug/l		10/23/12 11:41	10/23/12 19:27	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 19:27*	*1.00*
Toluene-d8	*110*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 19:27*	*1.00*
4-bromofluorobenzene	*107*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 19:27*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: MW-4-101912

Lab Sample ID: SVJ0177-04

Date Collected: 10/19/12 14:04

Matrix: Water

Date Received: 10/22/12 13:15

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.0100		ug/l		10/24/12 13:02	10/24/12 15:20	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.222		ug/l		10/26/12 08:35	10/26/12 15:44	1.00
2-Methylnaphthalene	ND		0.222		ug/l		10/26/12 08:35	10/26/12 15:44	1.00
1-Methylnapthalene	ND		0.222		ug/l		10/26/12 08:35	10/26/12 15:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79.9*		*31.6 - 137*	*10/26/12 08:35*	*10/26/12 15:44*	*1.00*
2-FBP	*90.1*		*35.1 - 129*	*10/26/12 08:35*	*10/26/12 15:44*	*1.00*
p-Terphenyl-d14	*104*		*0 - 149*	*10/26/12 08:35*	*10/26/12 15:44*	*1.00*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.00565**		0.00500		mg/L			10/26/12 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*84*		*62 - 124*		*10/26/12 13:12*	*1*

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**6.04**		0.0100		mg/l		10/29/12 09:17	11/01/12 19:48	1.00

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0150		mg/l		11/01/12 18:19	11/05/12 15:16	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND	H3	0.200		mg/l		10/23/12 07:48	10/23/12 12:28	1.00
Sulfate	**141**		5.00		mg/l		10/23/12 07:48	10/23/12 14:20	10.0

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**1000**		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00

Client Sample ID: Duplicate-1-101912

Lab Sample ID: SVJ0177-05

Date Collected: 10/19/12 12:34

Matrix: Water

Date Received: 10/22/12 13:15

Method: EPA 8260C - NWTPH-Gx and 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		10/23/12 11:41	10/23/12 19:51	1.00
Benzene	**74.8**		0.200		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
Ethylbenzene	**2.84**		0.500		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
m,p-Xylene	**3.33**		0.500		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
o-Xylene	**0.680**		0.500		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
1,2-Dichloroethane (EDC)	**4.07**		0.500		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
Xylenes (total)	**4.01**		1.50		ug/l		10/23/12 11:41	10/23/12 19:51	1.00
Hexane	**28.7**		1.00		ug/l		10/23/12 11:41	10/23/12 19:51	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: Duplicate-1-101912
Date Collected: 10/19/12 12:34
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-05
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 19:51*	*1.00*
Toluene-d8	*114*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 19:51*	*1.00*
4-bromofluorobenzene	*110*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 19:51*	*1.00*

Method: EPA 8260C - NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**5530**		900		ug/l		10/23/12 11:41	10/24/12 14:29	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*71.2 - 143*	*10/23/12 11:41*	*10/24/12 14:29*	*10.0*
Toluene-d8	*111*		*74.1 - 135*	*10/23/12 11:41*	*10/24/12 14:29*	*10.0*
4-bromofluorobenzene	*108*		*68.7 - 141*	*10/23/12 11:41*	*10/24/12 14:29*	*10.0*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.0100		ug/l		10/24/12 13:02	10/24/12 15:32	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.221		ug/l		10/26/12 08:35	10/26/12 16:08	1.00
2-Methylnaphthalene	ND		0.221		ug/l		10/26/12 08:35	10/26/12 16:08	1.00
1-Methylnapthalene	**3.45**		0.221		ug/l		10/26/12 08:35	10/26/12 16:08	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*63.3*		*31.6 - 137*	*10/26/12 08:35*	*10/26/12 16:08*	*1.00*
2-FBP	*91.8*		*35.1 - 129*	*10/26/12 08:35*	*10/26/12 16:08*	*1.00*
p-Terphenyl-d14	*105*		*0 - 149*	*10/26/12 08:35*	*10/26/12 16:08*	*1.00*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.0139**		0.00500		mg/L			10/26/12 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*87*		*62 - 124*		*10/26/12 13:14*	*1*

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**6.24**		0.0100		mg/l		10/29/12 09:17	11/01/12 19:53	1.00

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0150		mg/l		11/01/12 18:19	11/05/12 15:20	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND	H3	0.200		mg/l		10/23/12 07:48	10/23/12 12:47	1.00
Sulfate	**3.79**		0.500		mg/l		10/23/12 07:48	10/23/12 12:47	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	**1140**		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: Trip Blank
Date Collected: 09/20/12 00:00
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-06
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.500		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
Benzene	ND		0.200		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
Ethylbenzene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
m,p-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
o-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
Xylenes (total)	ND		1.50		ug/l		10/23/12 11:41	10/23/12 20:14	1.00
Hexane	ND		1.00		ug/l		10/23/12 11:41	10/23/12 20:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 20:14*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 20:14*	*1.00*
4-bromofluorobenzene	*109*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 20:14*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

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

Lab Sample ID: 12J0181-BLK1
Matrix: Water
Analysis Batch: 12J0181

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12J0181_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND	C	90.0		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
Methyl tert-butyl ether	ND		0.500		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
Benzene	ND		0.200		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
Toluene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
Ethylbenzene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
m,p-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
o-Xylene	ND		0.500		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
1,2-Dichloroethane (EDC)	ND		0.500		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
Xylenes (total)	ND		1.50		ug/l		10/23/12 11:41	10/23/12 14:24	1.00
Hexane	ND		1.00		ug/l		10/23/12 11:41	10/23/12 14:24	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*107*		*71.2 - 143*	*10/23/12 11:41*	*10/23/12 14:24*	*1.00*
Toluene-d8	*109*		*74.1 - 135*	*10/23/12 11:41*	*10/23/12 14:24*	*1.00*
4-bromofluorobenzene	*107*		*68.7 - 141*	*10/23/12 11:41*	*10/23/12 14:24*	*1.00*

Lab Sample ID: 12J0181-BS1
Matrix: Water
Analysis Batch: 12J0181

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0181_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons			1000	922		ug/l		92.2	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*108*		*71.2 - 143*
Toluene-d8	*109*		*74.1 - 135*
4-bromofluorobenzene	*104*		*68.7 - 141*

Lab Sample ID: 12J0181-BS2
Matrix: Water
Analysis Batch: 12J0181

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0181_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl tert-butyl ether			10.0	9.61		ug/l		96.1	80.1 - 128		
Benzene			10.0	10.5		ug/l		105	84.2 - 122		
Toluene			10.0	10.6		ug/l		106	85.8 - 123		
Ethylbenzene			10.0	10.4		ug/l		104	83.6 - 111		
m,p-Xylene			20.0	21.4		ug/l		107	86.4 - 115		
o-Xylene			10.0	10.8		ug/l		108	90.2 - 116		
Xylenes (total)			30.0	32.2		ug/l		107	91.4 - 114		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*109*		*71.2 - 143*
Toluene-d8	*110*		*74.1 - 135*
4-bromofluorobenzene	*106*		*68.7 - 141*

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

Lab Sample ID: 12J0181-BS3
Matrix: Water
Analysis Batch: 12J0181

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0181_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hexane			10.0	8.81		ug/l		88.1	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*109*		*71.2 - 143*
Toluene-d8	*110*		*74.1 - 135*
4-bromofluorobenzene	*106*		*68.7 - 141*

Lab Sample ID: 12J0181-DUP1
Matrix: Water
Analysis Batch: 12J0181

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 12J0181_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Hexane	4.53			4.15		ug/l				8.76	20

Lab Sample ID: 12J0181-DUP1
Matrix: Water
Analysis Batch: 12J0181

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 12J0181_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons				3690		ug/l					35
Benzene				173		ug/l					20
Ethylbenzene				16.0		ug/l					20
m,p-Xylene				335		ug/l					20
o-Xylene				142		ug/l					20
Xylenes (total)				477		ug/l					20

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
Dibromofluoromethane	*110*		*71.2 - 143*
Toluene-d8	*108*		*74.1 - 135*
4-bromofluorobenzene	*105*		*68.7 - 141*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 12J0192-BLK1
Matrix: Water
Analysis Batch: 12J0192

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12J0192_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.0100		ug/l		10/24/12 13:02	10/24/12 14:19	1.00

Lab Sample ID: 12J0192-BS1
Matrix: Water
Analysis Batch: 12J0192

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0192_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane			0.250	0.266		ug/l		106	60 - 140		

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

Lab Sample ID: 12J0192-BS2
Matrix: Water
Analysis Batch: 12J0192

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0192_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	0.250	0.272		ug/l		109	60 - 140

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

Lab Sample ID: 12J0212-BLK1
Matrix: Water
Analysis Batch: 12J0212

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12J0212_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100		ug/l		10/26/12 08:35	10/26/12 13:44	1.00
2-Methylnaphthalene	ND		0.100		ug/l		10/26/12 08:35	10/26/12 13:44	1.00
1-Methylnapthalene	ND		0.100		ug/l		10/26/12 08:35	10/26/12 13:44	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70.6*		*31.6 - 137*	*10/26/12 08:35*	*10/26/12 13:44*	*1.00*
2-FBP	*76.4*		*35.1 - 129*	*10/26/12 08:35*	*10/26/12 13:44*	*1.00*
p-Terphenyl-d14	*103*		*0 - 149*	*10/26/12 08:35*	*10/26/12 13:44*	*1.00*

Lab Sample ID: 12J0212-BS1
Matrix: Water
Analysis Batch: 12J0212

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12J0212_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	2.00	1.32		ug/l		65.8	27.6 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*76.8*		*31.6 - 137*
2-FBP	*83.4*		*35.1 - 129*
p-Terphenyl-d14	*101*		*0 - 149*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 490-31391/30
Matrix: Water
Analysis Batch: 31391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.00500		mg/L			10/26/12 12:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*117*		*62 - 124*		*10/26/12 12:32*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 490-31391/31
Matrix: Water
Analysis Batch: 31391

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methane			0.273	0.2998		mg/L		110	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Acetylene (Surr)	*100*		*62 - 124*

Lab Sample ID: LCSD 490-31391/32
Matrix: Water
Analysis Batch: 31391

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane			0.273	0.3032		mg/L		111	80 - 120	1	33

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Acetylene (Surr)	*97*		*62 - 124*

Lab Sample ID: 490-9791-D-1 MS
Matrix: Water
Analysis Batch: 31391

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methane	ND		0.273	0.3018		mg/L		110	46 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Acetylene (Surr)	*113*		*62 - 124*

Lab Sample ID: 490-9791-D-1 MSD
Matrix: Water
Analysis Batch: 31391

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	ND		0.273	0.3000		mg/L		110	46 - 142	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Acetylene (Surr)	*107*		*62 - 124*

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods

Lab Sample ID: 12K0011-BLK1
Matrix: Water
Analysis Batch: 12K0011

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12K0011_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0150		mg/l		11/01/12 18:19	11/05/12 14:36	1.00

Method: EPA 200.7 - Total Metals by EPA 200 Series Methods (Continued)

Lab Sample ID: 12K0011-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0011 — **Prep Batch: 12K0011_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			1.00	1.03		mg/l		103	85 - 115		

Lab Sample ID: 12K0011-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0011 — **Prep Batch: 12K0011_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		1.00	0.980		mg/l		98.0	70 - 130		

Lab Sample ID: 12K0011-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0011 — **Prep Batch: 12K0011_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	0.993		mg/l		99.3	70 - 130	1.36	20

Lab Sample ID: 12K0011-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12K0011 — **Prep Batch: 12K0011_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Lead	ND			ND		mg/l					20

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Lab Sample ID: 12J0225-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0225 — **Prep Batch: 12J0225_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0100		mg/l		10/29/12 09:17	11/01/12 15:39	1.00

Lab Sample ID: 12J0225-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0225 — **Prep Batch: 12J0225_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Manganese			1.00	1.03		mg/l		103	85 - 115		

Lab Sample ID: 12J0225-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0225 — **Prep Batch: 12J0225_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Manganese	0.0125		1.00	1.02		mg/l		100	75 - 125		

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods (Continued)

Lab Sample ID: 12J0225-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0225 — **Prep Batch: 12J0225_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	0.0125		1.00	1.02		mg/l		100	75 - 125	0.0184	20

Lab Sample ID: 12J0225-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0225 — **Prep Batch: 12J0225_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Manganese	0.0125		0.0181	R4	mg/l		36.7	20

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 12J0170-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0170 — **Prep Batch: 12J0170_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		10/23/12 07:48	10/23/12 12:10	1.00
Sulfate	ND		0.500		mg/l		10/23/12 07:48	10/23/12 12:10	1.00

Lab Sample ID: 12J0170-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0170 — **Prep Batch: 12J0170_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	5.18		mg/l		104	90 - 110
Sulfate	12.5	13.2		mg/l		106	90 - 110

Lab Sample ID: 12J0170-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0170 — **Prep Batch: 12J0170_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	0.230		5.00	5.68		mg/l		109	80 - 120
Sulfate	4.70		12.5	18.9		mg/l		114	80 - 120

Lab Sample ID: 12J0170-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0170 — **Prep Batch: 12J0170_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	0.230		5.00	5.69		mg/l		109	80 - 120	0.194	12.1
Sulfate	4.70		12.5	18.7		mg/l		112	80 - 120	1.46	10

Lab Sample ID: 12J0170-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0170 — **Prep Batch: 12J0170_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	0.230		0.220		mg/l		4.44	13.1
Sulfate	4.70		4.77		mg/l		1.48	15.7

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Lab Sample ID: 12J0179-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0179 — **Prep Batch: 12J0179_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity	ND		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00
Carbonate Alkalinity	ND		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00
Hydroxide Alkalinity	ND		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00
Total Alkalinity	ND		4.00		mg/l		10/23/12 11:27	10/23/12 16:53	1.00

Lab Sample ID: 12J0179-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0179 — **Prep Batch: 12J0179_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bicarbonate Alkalinity			500	480		mg/l		95.9	90 - 110		
Total Alkalinity			500	480		mg/l		96.0	90 - 110		

Lab Sample ID: 12J0179-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 12J0179 — **Prep Batch: 12J0179_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity	144			149		mg/l				3.52	10
Carbonate Alkalinity	ND			ND		mg/l					10
Hydroxide Alkalinity	ND			ND		mg/l					10
Total Alkalinity	145			150		mg/l				3.39	10

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: MW-1-101912

Lab Sample ID: SVJ0177-01

Date Collected: 10/19/12 13:10

Matrix: Water

Date Received: 10/22/12 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0181	10/23/12 18:16	CBW	TAL SPK
Total	Prep	EPA 3580		1.00	12J0192_P	10/24/12 13:02	CBW	TAL SPK
Total	Analysis	EPA 8011		1.00	12J0192	10/24/12 14:43	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.19	12J0212_P	10/26/12 08:35	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0212	10/26/12 14:32	MS	TAL SPK
Total/NA	Analysis	RSK-175		1	31391	10/26/12 13:06	MH	TAL NSH
Total	Prep	EPA 3005A		1.00	12J0225_P	10/29/12 09:17	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12J0225	11/01/12 16:44	ICP	TAL SPK
Total	Prep	EPA 3005A		1.00	12K0011_P	11/01/12 18:19	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12K0011	11/05/12 14:58	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0179_P	10/23/12 11:27	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	12J0179	10/23/12 16:53	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0170_P	10/23/12 07:48	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	12J0170	10/23/12 10:55	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	12J0170	10/23/12 13:24	CBW	TAL SPK

Client Sample ID: MW-2-101912

Lab Sample ID: SVJ0177-02

Date Collected: 10/19/12 12:09

Matrix: Water

Date Received: 10/22/12 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0181	10/23/12 18:39	CBW	TAL SPK
Total	Prep	GC/MS Volatiles	RE1	1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C	RE1	1.00	12J0181	10/24/12 13:41	CBW	TAL SPK
Total	Prep	EPA 3580		1.00	12J0192_P	10/24/12 13:02	CBW	TAL SPK
Total	Analysis	EPA 8011		1.00	12J0192	10/24/12 14:55	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.20	12J0212_P	10/26/12 08:35	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0212	10/26/12 14:56	MS	TAL SPK
Total/NA	Analysis	RSK-175		1	31391	10/26/12 13:08	MH	TAL NSH
Total	Prep	EPA 3005A		1.00	12J0225_P	10/29/12 09:17	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12J0225	11/01/12 19:39	ICP	TAL SPK
Total	Prep	EPA 3005A		1.00	12K0011_P	11/01/12 18:19	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12K0011	11/05/12 15:02	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0179_P	10/23/12 11:27	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	12J0179	10/23/12 16:53	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0170_P	10/23/12 07:48	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	12J0170	10/23/12 13:43	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	12J0170	10/23/12 13:43	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: MW-3-101912

Date Collected: 10/19/12 11:00
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-03

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	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0181	10/23/12 19:03	CBW	TAL SPK
Total	Prep	GC/MS Volatiles	RE1	1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C	RE1	10.0	12J0181	10/24/12 14:05	CBW	TAL SPK
Total	Prep	EPA 3580		1.00	12J0192_P	10/24/12 13:02	CBW	TAL SPK
Total	Analysis	EPA 8011		1.00	12J0192	10/24/12 15:07	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.22	12J0212_P	10/26/12 08:35	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0212	10/26/12 15:20	MS	TAL SPK
Total/NA	Analysis	RSK-175		1	31391	10/26/12 13:10	MH	TAL NSH
Total	Prep	EPA 3005A		1.00	12J0225_P	10/29/12 09:17	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12J0225	11/01/12 19:44	ICP	TAL SPK
Total	Prep	EPA 3005A		1.00	12K0011_P	11/01/12 18:19	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12K0011	11/05/12 15:06	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0179_P	10/23/12 11:27	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	12J0179	10/23/12 16:53	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0170_P	10/23/12 07:48	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	12J0170	10/23/12 11:32	CBW	TAL SPK

Client Sample ID: MW-4-101912

Date Collected: 10/19/12 14:04
Date Received: 10/22/12 13:15

Lab Sample ID: SVJ0177-04

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	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0181	10/23/12 19:27	CBW	TAL SPK
Total	Prep	EPA 3580		1.00	12J0192_P	10/24/12 13:02	CBW	TAL SPK
Total	Analysis	EPA 8011		1.00	12J0192	10/24/12 15:20	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.22	12J0212_P	10/26/12 08:35	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0212	10/26/12 15:44	MS	TAL SPK
Total/NA	Analysis	RSK-175		1	31391	10/26/12 13:12	MH	TAL NSH
Total	Prep	EPA 3005A		1.00	12J0225_P	10/29/12 09:17	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12J0225	11/01/12 19:48	ICP	TAL SPK
Total	Prep	EPA 3005A		1.00	12K0011_P	11/01/12 18:19	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12K0011	11/05/12 15:16	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0179_P	10/23/12 11:27	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	12J0179	10/23/12 16:53	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0170_P	10/23/12 07:48	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	12J0170	10/23/12 12:28	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	12J0170	10/23/12 14:20	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Client Sample ID: Duplicate-1-101912

Lab Sample ID: SVJ0177-05

Date Collected: 10/19/12 12:34

Matrix: Water

Date Received: 10/22/12 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0181	10/23/12 19:51	CBW	TAL SPK
Total	Prep	GC/MS Volatiles	RE1	1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C	RE1	10.0	12J0181	10/24/12 14:29	CBW	TAL SPK
Total	Prep	EPA 3580		1.00	12J0192_P	10/24/12 13:02	CBW	TAL SPK
Total	Analysis	EPA 8011		1.00	12J0192	10/24/12 15:32	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		2.21	12J0212_P	10/26/12 08:35	MS	TAL SPK
Total	Analysis	EPA 8270 mod.		1.00	12J0212	10/26/12 16:08	MS	TAL SPK
Total/NA	Analysis	RSK-175		1	31391	10/26/12 13:14	MH	TAL NSH
Total	Prep	EPA 3005A		1.00	12J0225_P	10/29/12 09:17	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12J0225	11/01/12 19:53	ICP	TAL SPK
Total	Prep	EPA 3005A		1.00	12K0011_P	11/01/12 18:19	JSP	TAL SPK
Total	Analysis	EPA 200.7		1.00	12K0011	11/05/12 15:20	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0179_P	10/23/12 11:27	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	12J0179	10/23/12 16:53	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	12J0170_P	10/23/12 07:48	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	12J0170	10/23/12 12:47	CBW	TAL SPK

Client Sample ID: Trip Blank

Lab Sample ID: SVJ0177-06

Date Collected: 09/20/12 00:00

Matrix: Water

Date Received: 10/22/12 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	12J0181_P	10/23/12 11:41	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	12J0181	10/23/12 20:14	CBW	TAL SPK

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

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
Washington	State Program	10	C569	01-06-13

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-12
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAC	9	1168CA	10-31-12
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAC	4	E87358	06-30-13
Illinois	NELAC	5	200010	12-09-12
Iowa	State Program	7	131	05-01-14
Kansas	NELAC	7	E-10229	10-31-12
Kentucky	State Program	4	90038	12-31-12
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAC	6	LA120025	12-31-12
Louisiana	NELAC	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAC	5	047-999-345	12-31-12
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAC	1	2963	10-09-13
New Jersey	NELAC	2	TN965	06-30-13
New York	NELAC	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-12
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAC	10	TN200001	04-30-13
Pennsylvania	NELAC	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-12
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAC	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAC	8	TAN	06-30-13
Virginia	NELAC	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-075-00

TestAmerica Job ID: SVJ0177

Method	Method Description	Protocol	Laboratory
EPA 8260C	NWTPH-Gx and Volatile Organic Compounds by EPA Method 8260C		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270 mod.	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
RSK-175	Dissolved Gases (GC)	RSK	TAL NSH
EPA 200.7	Dissolved Metals by EPA 200 Series Methods		TAL SPK
EPA 200.7	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

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

CHAIN OF CUSTODY REPORT

Work Order #: SED0177

CLIENT: GEDENGINEERS
REPORT TO: JON RUDDERS
ADDRESS: 523 E SPOKANE, WA SPOKANE, WA 99201
PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO: JON RUDDERS
P.O. NUMBER:

PROJECT NAME: FRENCHIES' FILL-N-FOOD
PROJECT NUMBER: 0504-075-00
SAMPLED BY: KATIE HALL

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

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: GRPH BY NWTPH-GX	VOCs*1 BY EPA 8260C	EDB BY EPA 504.1	NAPHTHALENES*2 BY EPA 8270C SIM	LEAD BY EPA 6020C	Nitrate EPA 300	Sulfate EPA 300	Alkalinity SM 2320B	Soluble Manganese EPA 200.7	Methane RSK-175	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 MW-1-101912	10/19/12 1310		X	X	X	X	X	X	X	X	X	X	W	8		
2 MW-2-101912	10/19/12 1209		X	X	X	X	X	X	X	X	X	X	W	8		
3 MW-3-101912	10/19/12 1100		X	X	X	X	X	X	X	X	X	X	W	8		
4 MW-4-101912	10/19/12 1404		X	X	X	X	X	X	X	X	X	X	W	8		
5 DUPLICATE-1-101912	10/19/12 1234		X	X	X	X	X	X	X	X	X	X	W	8		
6 TRIP BLANK			X	X									W	1		
7																
8																
9																
10																

10/22/12

RELEASED BY: [signature] DATE: 10/19/12
PRINT NAME: KATIE HALL FIRM: GET TIME: 1900
RECEIVED BY: [signature] DATE: 10/19/12
PRINT NAME: Scott Lathen FIRM: GET TIME: 1900

RELEASED BY: [signature] DATE: 10/22/12
PRINT NAME: Scott Lathen FIRM: GET TIME: 1315
RECEIVED BY: [signature] DATE: 10-22-12
PRINT NAME: Cat Hamilton FIRM: TA TIME: 13:15

ADDITIONAL REMARKS:
*1 VOCs: BTEX, MTBE, N-HEXANE, EDC *2 NAPHTHALENES: NAPHTHALENE, 1-METHYLNAPHTHALENE, 2-METHYLNAPHTHALENE

TEMP: 4.3 PAGE OF

TAL-1000(0408)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SVS0177	Client: GeoEngineers	Project: Frenchies
Date/Time Received: 10.8.12 13:15	By: CS	

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

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

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

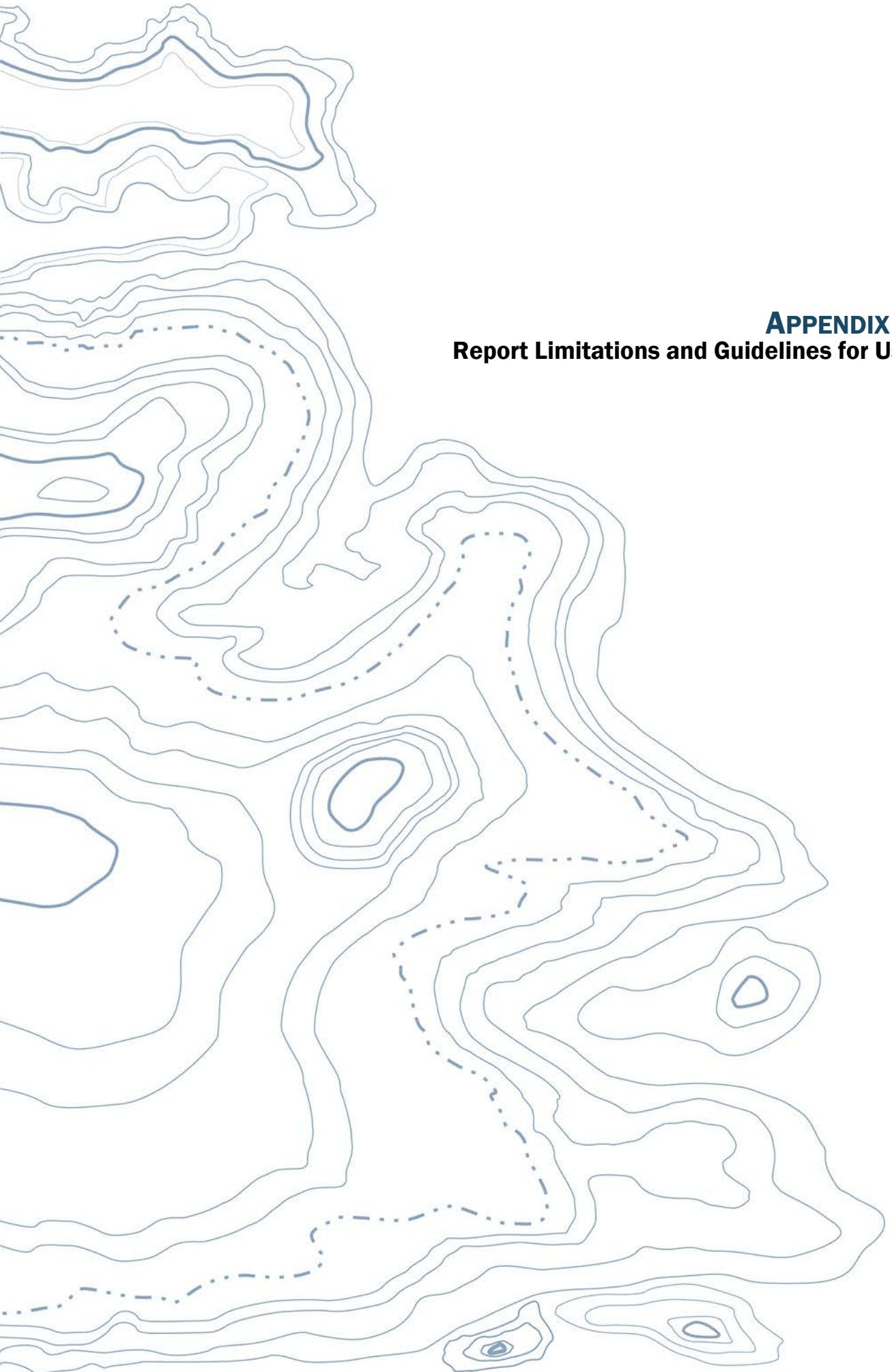
Thermal Preservation Type: ☐Blue Ice ☐Gel Ice ☒Real Ice ☐Dry Ice ☐None ☐Other:

Temperature by IR Gun: 2.3 °C Thermometer Serial #81500 (acceptance criteria 0-6 °C)

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

Log-In Phase Date/Time: 10-9-12 1410 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X	X		No unpreserved poly for Nitrate
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			Nitrate
Was the CoC scanned	X			
Were there Non-conformance issues at login	X	X		
If yes, was a CAR generated # 1280	X	per Heidi	X	

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



APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

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

Environmental Services Are Performed for Specific Purposes, Persons and Projects

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

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

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

This report has been prepared for the Frenchies Fill-N-Food site located at 106 East Moxee Avenue in Moxee, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

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

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

Reliance Conditions for Third Parties

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

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

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

Environmental Regulations are Always Evolving

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

Uncertainty May Remain Even After This Phase II ESA is Completed

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

Subsurface Conditions Can Change

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

Soil and Groundwater End Use

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

Most Environmental Findings are Professional Opinions

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

Do Not Redraw the Exploration Logs

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

Read These Provisions Closely

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

Geotechnical, Geologic and Geoenvironmental Reports Should Not be Interchanged

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

Biological Pollutants

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

If 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**.

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