

**Phase II Environmental Site Assessment  
Former Key Bank Property  
1000 NE 45<sup>th</sup> Street  
Seattle, Washington**

January 9, 2012

Submitted To:  
Mr. Mark Menard  
Sound Transit  
401 South Jackson Street  
Seattle, Washington 98104-2826

By:  
Shannon & Wilson, Inc.  
400 N 34<sup>th</sup> Street, Suite 100  
Seattle, Washington 98103

21-1-16604-005

## EXECUTIVE SUMMARY

Shannon & Wilson, Inc. has completed a Phase II Environmental Site Assessment (ESA) of the Key Bank Property for the Sound Transit North Link Corridor. The subject property is located at 1000 NE 45<sup>th</sup> Street in Seattle, Washington. Sound Transit purchased the property in 2001. The site is developed with one building and paved parking and driveways that were related to the former bank with drive-through configuration. A north-south trending alley divides the property into a larger west side and the smaller east side .

The objective of this Phase II ESA was to evaluate whether current or former on- and off-site activities have affected the subject property. The Phase II ESA tasks included conducting a geophysical survey of the property, soil sampling from twelve geoprobes and three soil borings, installation of three groundwater monitoring wells, and groundwater sampling from one geoprobe and three installed wells. Based on analytical data for the geoprobe soil samples, an additional ten geoprobes were advanced on the east side of the property, to further assess contamination. Borings and monitoring well locations were chosen based on the findings of the anomalies identified during the geophysical survey and recognized environmental conditions at the site.

The Phase I ESA conducted in 2000 identified that the site was first developed in 1922, with a building located on the south side, west of the alley (Building A) (White Shield Inc., 2000). In addition, a service station operated on the west side of the property from at least 1938 to 1956 (Building B). In 1926, a building was constructed in the southeast corner of the property (Building C), and in 1943 a laundromat and café occupied the building. Building C was demolished in 1963 and the other buildings were demolished in approximately 1971. A bank building was constructed near the footprint of the former service station (Building B). In 2000, gasoline and related volatile organic compounds (VOCs) were encountered in explorations conducted on the west side of the site.

The geophysical survey was conducted in September 2011 to evaluate the presence of potential underground storage tanks (USTs) associated with the former service station and other buildings. The survey identified four large unknown metal objects that may be USTs and seven smaller unknown metal objects. Geoprobes were advanced in the vicinity of the anomalies and other select areas of the site. Following receipt of analytical data, three monitoring well locations and ten additional geoprobes were selected to further evaluate site soil and groundwater.

Soil and groundwater samples collected from the probes, soil borings, and monitoring wells were analyzed for petroleum hydrocarbons (gasoline, diesel, and oil ranges), metals, and VOCs. Select soil samples were also analyzed for polychlorinated biphenyls because of elevated oil concentrations. Two samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) for tetrachloroethene (PCE) for disposal characterization.

Two contaminated areas have been identified on the property. They each are likely associated with historical activities that occurred on that part of the property. On the west side of the property, petroleum and related VOCs were detected west to southwest of two adjacent potential USTs likely associated with the former service station. On the east side of the property, PCE and other halogenated VOCs (HVOCs) were encountered in the east-southeast portion of the site, north of the former location of Building C, and adjacent to a large anomaly. Based on the nature and distribution of contaminants, it appears that the former laundromat also provided dry cleaning services.

The gasoline contamination is located west of the current building, which was constructed near the former service station building (Building B) footprint. Two soil samples contained gasoline at concentrations above Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A unrestricted criteria. Gasoline, above MTCA Method A cleanup levels, was also detected in groundwater collected from GP-3, located adjacent to the potential USTs; MW-1, likely downgradient of the suspected USTs; and MW-3 located downgradient/cross-gradient of the USTs. Two HVOCs were detected in groundwater collected from probe GP-3, with the concentration of PCE exceeding the MTCA Method A cleanup level. The presence of HVOCs appears to be unrelated to contamination on the east side of the property that is approximately 120 feet downgradient of the probe. However, if HVOC concentrations in groundwater at the source are sufficiently elevated, the radius of influence where the contaminant disperses at the molecular level could be large enough to impact groundwater and soil upgradient of the source. Low levels of lubricating oil were detected in soil at four locations across the site, at concentrations well below the MTCA Method A cleanup level. Chromium, the only metal detected in soil, was detected well below the MTCA Method A cleanup level.

It appears, based on analytical results, that soil adjacent to the former service station is contaminated with gasoline at levels above MTCA Method A cleanup levels for soil. Concentrations of gasoline in soil are below cleanup levels at the southern boundary and likely downgradient of the potential USTs. However, gasoline concentrations in groundwater at the southern boundary of the site on the west side are above MTCA Method A cleanup levels. Benzene, as well as other gasoline related VOCs, are present at a concentration below MTCA,

Method A cleanup levels. The concentration of gasoline in groundwater on the east side is below MTCA.

Elevated concentrations of PCE were detected on the east side of the property, about 30 feet north of the former Building C footprint. The highest concentrations appear to be adjacent to a large anomaly located in the middle of the east side. Localized petroleum contamination was also encountered in two samples near the anomaly. Soil and groundwater samples collected from MW-2, north of the anomaly, indicate that the source of the PCE was not from off-site, rather that the contamination is moving off-site, as supported by data from MW-3. The highest concentration of PCE in soil from MW-3 is about twice the MTCA Method A cleanup level, while the concentration in groundwater is more than an order of magnitude above the cleanup level.

Based on historical evidence and analytical results, it appears that the laundromat also operated a drycleaner. The large metal anomaly north of Building C could be another UST. Because this side of the site is associated with a former dry cleaning operation, handling and disposal of soil and water generated during site investigation and remediation will require compliance with the Resource Conservation Recovery Act. All soil, groundwater, and rinse water generated in this portion of the site that contains HVOCs will carry a F002 code, as a spent solvent, and be designated a listed Dangerous Waste. A unique site identification number has been provided by Ecology so disposal of waste containing HVOCs can be tracked and reported to the state, as required under RCRA.

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**ACRONYMS AND ABBREVIATIONS**

bgs	below ground surface
DCE	cis -1,2- dichloroethene
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	environmental site assessment
HVOCs	halogenated volatile organic compounds
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
MTCA	Model Toxics Control Act
NWTPH-G	Northwest Total Petroleum Hydrocarbons-Gasoline
NWTPH-Dx	Northwest Total Petroleum Hydrocarbons-Diesel Extended
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
RCRA	Resource Conservation Recovery Act
RECs	recognized environmental conditions
TCE	trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
USTs	underground storage tanks
White Shield	White Shield, Inc.
VOCs	volatile organic compounds

**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
FORMER KEY BANK PROPERTY  
1000 NE 45<sup>TH</sup> STREET  
SEATTLE, WASHINGTON**

**1.0 INTRODUCTION**

**1.1 Authorization**

Shannon & Wilson, Inc. has completed a Phase II Environmental Site Assessment (ESA) for the Key Bank Property located at 1000 NE 45<sup>th</sup> Street, Seattle, Washington (Figure 1). This work was conducted under contract RTA/LR 164-09C with Sound Transit, in general accordance with Work Directive No. 4, authorized by Mr. Kent Melton of Sound Transit on September 6, 2011, and Modification 1, authorized on October 10, 2011. We understand this work is being requested to support potential remedial actions to be completed during the North Link Stations Site Preparation or Construction Contract.

**1.2 Objective**

The objective of this Phase II ESA was to evaluate whether current or former on- and off-site activities have affected the subject property. Borings and monitoring well locations were chosen based on the findings of the anomalies identified during the geophysical survey and recognized environmental conditions (RECs) observed inside the building. The scope of this investigation included the following tasks:

- Completion of a geophysical survey to look for buried objects, such as underground storage tanks (USTs).
- Advancement of 22 geoprobes to collect soil and groundwater samples for chemical analysis.
- Advancement of three soil borings using hollow-stem auger drilling methods to collect soil samples for chemical analysis.
- Analysis of up to two soil samples from each geoprobe and boring for contaminants of concern.
- Installation of three monitoring wells to assess depths to groundwater and collect groundwater samples for chemical analysis.
- Analysis of groundwater samples from each well and one geoprobe boring for contaminants of concern.



- Coordination of investigation-derived waste disposal.
- Preparation of this report.

The scope of work focused on identifying and evaluating environmental concerns with significant potential to contaminate the subject property identified during a previous investigation conducted at the site. The field sampling was intended to assess the vertical and lateral extent of soil and groundwater contamination encountered during the investigation.

## 2.0 SITE BACKGROUND

### 2.1 Site Description

The Key Bank Site, located at 1000 NE 45<sup>th</sup> Street, in Seattle, Washington, is occupied by a one-story building with canopies located on the north and south sides of the building. The property encompasses an area of about 18,034 square feet and is surrounded by a paved parking lot. A north-south-trending alley divides the parcel into two parts, an east side and a west side. The west side is the larger of the two and contains the existing former bank building. The parking lot extends to the area east of the alley. Numerous subsurface utilities are located in the alley. The site is located at the south end of the city block and is bordered by Roosevelt Way to the west, NE 45<sup>th</sup> Street to the south, and NE 11<sup>th</sup> Street to the east. The site is currently leased as a pay parking lot. A map of the project site and adjacent streets is provided in Figure 2.

### 2.2 Site History

The first documented site use occurred in 1922, when a building (Building “A”), heated by a stove, was constructed on the south side of the property, west of the alley (Figure 2). By 1926, the building was divided into two retail businesses and a barbershop. Between 1938 and 1956, a service station (Building “B”) also operated on the west side of the site. A third building (Building C) was constructed in the southeast corner of the property in 1926. This building was also divided into three businesses, and in 1943 it was occupied by a café and a laundromat. From 1953 until 1961, a used car dealership operated on the entire site, and from 1961 until 1971, a drive-in restaurant occupied the site. Building C was demolished in 1963, and by 1971 buildings on the west side of the property were demolished. A new bank building with drive-through teller configuration and parking was constructed and was last occupied by Key Bank. The property was sold to Sound Transit in 2001.

### 2.3 Phase I Environmental Site Assessment (ESA) Results

As part of the property purchase documentation, a Phase I ESA was prepared for Sound Transit (White Shield Inc., 2000). RECs were identified that could potentially impact site soils and groundwater. Specific findings and conclusions included:

- The site was occupied by a service station from approximately 1938 until 1956. A used car lot occupied the site from 1953 to 1961. Potential contaminants derived from these businesses could include petroleum hydrocarbons from fuels, hydraulic fluids, waste oils, solvents, and miscellaneous wastes.
- An autobody and paint shop, located adjacent to the north, operated since at least 1930. It is still operating as of 2011. Potential contaminants include metals and petroleum-derived products including fuels, lubricants, and solvents.
- In 2000, an autobody shop was located within 1/8 mile north and potentially upgradient of the site and posed potential risk of contamination by waste oils, solvent, acids, paint, waste hydraulic fluids, and miscellaneous cutting oils.
- Former adjacent auto dealerships located on the west side Roosevelt Way, and on the east side of 11<sup>th</sup> Avenue NE, pose potential risk of contamination by waste oils, solvents, and miscellaneous wastes. These sites are potentially upgradient of the subject parcel.

## 3.0 SITE GEOLOGY AND HYDROGEOLOGY

### 3.1 Geology

Subsurface conditions at the site have been interpreted from available geoprobe and boring logs completed during this investigation. The boring logs for the Phase II ESA study are included in Appendix A.

Fill soils comprised primarily of dense, gravelly, fine to medium sand and containing scattered debris overlies much of the site, ranging from 4.5 to 14 feet thick in the probes and borings. This fill overlies a thick sequence of Vashon glacial till and diamict (till-like) deposits. In nearby borings south of the site this till-like layer extends to depths of approximately 36 to 47 feet. These glacial sediments consists of very dense, slightly silty to silty sand with gravels and scattered cobbles. Interspersed within these sediments are interbeds of cleaner fine to medium sand. A hard, silty clay to clay (glaciolacustrine clay) underlies the glacial deposits. Based on nearby borings, the clay layer is discontinuous but can be up to about 20 feet thick.

### 3.2 Hydrogeology

The depth to the water table measured on the property during the Phase II ESA explorations ranged from approximately 13 feet to 18 feet below ground surface (bgs). Groundwater encountered in geoprobe GP-3 at a depth of approximately 12.5 feet bgs is likely associated with the coarse backfill surrounding the UST. Groundwater was not encountered in any other probes. Shallow groundwater was detected in MW-1 at 14 feet (estimated elevation of 61.7 feet), MW-2 at 19 feet (estimated elevation 54.7), and MW-3 at 33 feet (estimated elevation of 38.5 feet). The well in was completed below the shallow groundwater zone, where wet soil in MW-3 was also encountered at approximately 18 feet bgs (estimated elevation of 54.1 feet). Elevations are approximate and are with respect to a datum of 80 feet in the northwest corner of the site. Groundwater flow direction may fluctuate in response to seasonal changes across the site. In the fall, the groundwater appears to flow east- southeast.

The monitoring wells completed for this Phase II ESA were installed in the glacial sediments directly overlying the low-permeability glaciolacustrine clay. In nearby borings the data suggest that groundwater flow of the shallow aquifer in the vicinity of the site is to the east-southeast. In nearby wells, installed in a deeper aquifer, the groundwater gradient also slopes gently toward the south at about 40 feet bgs (Shannon & Wilson, Inc., 2005).

## 4.0 FIELD EXPLORATIONS

An exploration program was developed to investigate RECs identified in the White Shield. Phase I ESA and potential gasoline contamination previously identified on the property. The program included conducting a geophysical survey, and collecting soil and groundwater samples from geoprobes, soil borings, and monitoring wells. Our rationale and results for each of the elements of the exploration program are summarized below.

### 4.1 Geophysical Survey

A geophysical survey of the property was conducted on September 16, 2011, by Global Geophysics of Monroe, Washington, under subcontract to Shannon & Wilson, Inc. The geophysical survey was conducted to evaluate the presence of buried objects, such as USTs from the former services station. The survey identified 11 buried anomalies on the property. Results of the survey are included in the geophysical report provided in Appendix B. The anomalies identified from the geophysical survey are approximately shown in Figure 2.

## 4.2 Geoprobes

After evaluating the results of the geophysical survey, we advanced a total of 22 geoprobes (Figure 2) at the subject property during two rounds of sampling. During the initial round of sampling conducted on September 22, 2011, 12 geoprobes (GP-1 through GP-12) were advanced by Cascade Drilling of Woodinville, Washington. On October 14, 2011, an additional ten geoprobes (GP-13 through GP-22) were advanced by ESN Northwest of Olympia, Washington.

Geoprobes GP-1 and GP-2 were advanced along the northern property boundary next to an existing auto dealership and an anomaly identified during the geophysical survey on the west side of the property.

Geoprobes GP-3 through GP-9 were advanced on the west side of the property in an area where a former gasoline service station was previously identified and two side-by-side anomalies were identified during the geophysical survey. The identified anomalies may potentially be abandoned USTs that were associated with the historic service station.

Three additional geoprobes (GP-10 through GP-12) were advanced on the east side of the property, during the initial round of sampling. Probes were located adjacent to anomalies identified during the geophysical survey.

Based on the results of the initial round of sampling, nine additional “step-out” geoprobe borings (GP-13 through GP-21) were advanced on the east side of the property and one additional step geoprobe boring (GP-22) was advanced on the west side of the property, adjacent to the alley. The geoprobes were advanced to assess the lateral extent of PCE-contaminated soil encountered during the initial round of sampling. Samples were collected at various depths to identify the interval with the highest concentration. The geoprobe locations are shown in Figure 2.

## 4.3 Soil Borings and Monitoring Wells

Following evaluation of analytical data from the initial round of geoprobe sampling, three locations were selected for monitoring well installation. On October 6 and 7, 2011, three monitoring wells were installed, monitoring well MW-1 on the west side of the property, and monitoring wells MW-2 and MW-3 on the east side of the property. Monitoring well MW-1 was placed in the southwest corner of the property to assess if contamination associated with the anomaly identified as a potential USTs could have impacted groundwater and potentially migrated off-site.

Monitoring well MW-2 was placed in the northeast corner of the parking lot, along the northern property line. The location was selected to evaluate the potential of contaminated groundwater migrating on-site from potentially contaminated sites located adjacent and upgradient. The first attempt, which was approximately 5 feet west of the finished well, hit an obstruction at a depth of approximately 5 feet.

Monitoring well MW-3 was placed in the southeast corner of the parking lot, potentially downgradient of a buried anomaly discovered during the geophysical survey. This location was selected to further evaluate elevated PCE concentrations detected in soil from probes GP-10, GP-11, and GP-12. Monitoring well locations are shown in Figure 2.

#### **4.4 Soil and Groundwater Sampling**

A total of 43 soil samples were collected from the geoprobe and boring locations at the site for chemical analysis. The soil samples were selected for chemical analysis based on field screening results, the estimated depths to the bottom of potential USTs/debris, and/or depth to groundwater. Groundwater samples were collected for analytical testing from the three installed wells and one geoprobe boring where water was encountered. The purpose of each sampling location, sample names and depths, well screen intervals, and chemical analyses selected for each sample are summarized in Table 1. The field methodology used during this investigation and the boring logs summarizing field observations are presented in Appendix A.

#### **4.5 Analytical Methods**

Analytical testing for soil and groundwater included the following:

- Gasoline-range hydrocarbons by Method Northwest Total Petroleum Hydrocarbons as Gasoline (NWTPH-Gx)
- Diesel- and oil-range hydrocarbons by Method Northwest Total Petroleum Hydrocarbons as Diesel-extended (NWTPH-Dx)
- Polychlorinated biphenyls (PCBs) by U.S. Environmental Protection Agency (EPA) Method 8082
- Volatile organic compounds (VOCs) or halogenated VOCs (HVOCs) by EPA Method 8260B
- Model Toxics Control Act (MTCA) metals (including arsenic, cadmium, chromium, lead, mercury) by EPA Methods 6000/7000 series (soil) and 200.8 (total and dissolved in groundwater)

Based on elevated PCE concentrations, two soil samples were also analyzed for Toxicity Characteristic Leaching Procedure (TCLP) PCE by EPA Method 1311/8260B. Table 2 summarizes the analytical results and Table 3 summarized the analytical results for groundwater. Analytical results for the primary contaminants are also shown in Figures 3 and 4. Analytical laboratory reports are contained in Appendix C.

#### **4.6 Analytical Results**

Two contaminated areas have been identified on the property. Petroleum and related VOCs were detected west to southwest of potential USTs associated with the former service station. The contamination is located west of the current building, which was constructed near the former service station building (Building B) footprint. The second area of contamination consisted of PCE and other HVOCs encountered on the east-southeast side of the site, north of the former Building C. The source of contaminants for the east side is also likely a UST associated with the former laundromat/dry cleaner.

##### **4.6.1 Soil Results - West Side of Property**

Petroleum and related VOCs were detected west to southwest of potential USTs associated with the former service station. The contamination is located west of the current building, which was constructed near the former service station building (Building B) footprint.

Diesel- and oil-range petroleum hydrocarbons were detected in four soil samples collected from the geoprobes and soil borings at the site. None of the oil-range detections exceeded their corresponding MTCA Method A cleanup criterion of 2,000 milligrams per kilogram (mg/kg). Gasoline was detected in five samples, of which two, located near the potential USTs, exceed MTCA cleanup criteria of 100 mg/kg. Benzene was not detected; however, other petroleum-related VOCs were detected in geoprobes. VOCs in this part of the site were detected at concentrations below MTCA Method A cleanup criteria. Field indication of contamination (petroleum odor and staining) was observed in these soil samples. A single HVOC (cis-1,2-dichloroethene [DCE]) was detected in one soil sample, in the vicinity of the potential USTs on the west side (GP-3). Its presence appears to be unrelated to contaminants on the east side of the property. However, soil could be impacted if HVOC concentrations in groundwater are sufficiently elevated, as discussed below.

The concentrations of chromium, the only MTCA metal detected in soil, were well below the MTCA Method A cleanup level, and within the range of concentrations typically encountered in Washington (Dragun and Chaisson, 1991).

#### 4.6.2 Groundwater Results - West Side of Property

Groundwater was only encountered in a single probe, GP-3, which was located adjacent to the potential USTs on the west side of the property. Gasoline and petroleum-related compounds were detected in this sample at concentrations well above the MTCA Method A cleanup levels. HVOCs, PCE, TCE, and DCE were also detected above MTCA Method A cleanup levels. The presence of these HVOCs does not appear to be correlated to contamination on the east side of the property since it was only encountered in soil from GP-3. However, if HVOC concentrations in groundwater at the source are sufficiently elevated, the radius of influence where the contaminant disperses at the molecular level could be large enough to impact groundwater and soil upgradient of the source.

Gasoline was also detected in a groundwater sample collected from MW-1, located downgradient/cross gradient of the potential USTs associated with the former service station. The concentration at 1,100 µg/L (micrograms per liter) was slightly above the cleanup level of 800 µg/L. The lower cleanup level is applicable because benzene was also detected in the sample at 0.63 µg/L, well below its MTCA Method A cleanup level of 5 µg/L.

Metals arsenic, chromium, and lead were detected in MW-1. The concentrations of total arsenic and chromium in MW-1 were higher than MTCA Method A cleanup levels, but the elevated concentrations are likely attributable to a slightly turbid sample. These elements were not detected in the dissolved phase.

#### 4.6.3 Soil Results - East Side of Property

Elevated concentrations of PCE were detected in every boring or probe advanced on the east side of the site, except MW-2. Trichloroethene (TCE), a breakdown product of PCE, was detected in about half of the samples and vinyl chloride was detected in only one sample (GP-15:12). The highest concentrations of PCE appear to be adjacent to the large anomaly located in the middle of the east side of the site. The concentrations decreased by orders of magnitude further from the anomaly.

In GP-16, located adjacent south of the anomaly, PCE was detected at 98 mg/kg at a depth of 8 feet bgs. Fifty feet southwest of GP-16, on the west side of the alley, PCE was detected at a concentration below the MTCA Method A cleanup level of 0.05 mg/kg (GP-22). In GP-19, located on the east property boundary, it was detected at a concentration slightly above the MTCA criteria. Localized low-level petroleum contamination was encountered in two locations sample near the anomaly on the east parking lot (GP-11 and GP-16).

HVOCs were not detected in soil samples collected from MW-2, located at the northeast property boundary. The concentrations of PCE also appear to be higher at depths greater than 6 feet, which correlates with the typical depth of a small UST.

In MW-3, located at the south property boundary, PCE was detected in every sample to a depth of 35 feet, at the bottom of the boring (0.033 mg/kg). The highest concentration of PCE in MW-3, encountered in a wetter zone at a depth of 18 feet bgs, was about twice the MTCA Method A cleanup level.

Because of the elevated PCE concentration in one particular soil sample (GP-16:8). The sample was analyzed by TCLP for PCE to evaluate whether the soil would have Dangerous Waste characteristics. A sample of the spoils from the second probe study was also analyzed for total and TCLP PCE for disposal characterization. Based on the analyses, the samples did not contain leachable PCE in excess of Dangerous Waste criteria.

#### **4.6.4 Groundwater Results - East Side of Property**

No organic contaminants were identified in the sample collected from MW-2, upgradient/cross gradient of the potential USTs on the west side, and the anomaly identified on the east side.

PCE in MW-3, was detected at 130 µg/L, well above the MTCA Method A cleanup criterion of 5 µg/L. TCE was detected at 1.8 µg/L, well below its MTCA criterion. Gasoline was also detected in a sample from MW-3 (160 µg/L), but no other petroleum related VOCs were detected. Metals arsenic, chromium, and lead were detected in MW-2 at concentrations below MTCA. There was insufficient water in MW-3 to collect a sample for metals analysis. MW-3 is likely downgradient of the potential USTs on the west side of the property, and within 50 feet, and likely down/cross gradient, of the anomaly on the east side. It is also located approximately 10 feet from the south property boundary.

#### **4.7 Disposal of Investigation-derived Waste (IDW)**

Soil cuttings and development/purge/rinse water generated during the field activities were placed into 55-gallon drums and temporarily stored on site pending disposal. Shannon & Wilson, Inc. contracted with Emerald Services of Seattle, Washington, to pick up and dispose of this material. Petroleum impacted soil was disposed at a RCRA Subtitle D landfill under a bill of lading.



Disposal of HVOCs impacted soil and water must comply with the Resource Conservation and Recovery Act (RCRA) requirements for disposal of spent solvents from a dry cleaning operation (former laundromat). This investigation-derived waste was designated an F002 listed dangerous waste. A RCRA Site ID was obtained by Sound Transit from the Washington State Department of Ecology (Ecology). The drums containing F002 soil were disposed at US Ecology RCRA Subtitle C landfill in Idaho, under a dangerous waste manifest. Disposal documentation is contained in Appendix D.

## 5.0 CONCLUSIONS

Based on the above data, we offer the following conclusions for the subject property based on affected area.

### 5.1 West Side of Property

- The geophysical survey identified several buried anomalies (potential USTs and metallic debris) that may be related to the former service station. Two adjacent anomalies are likely USTs associated with the former service station. No closure documentation of the former service station tanks have been discovered. Closure of these tanks should be accomplished prior to site development.
- Gasoline and petroleum-related VOCs were detected above their respective Method A cleanup criteria in soil samples collected from the vicinity of a potential USTs located west of the current building, on the west side of the property. To meet the MTCA cleanup criteria in the near future, a removal action of the contaminated soil would be required.
- Benzene was detected in the groundwater sample, consequently the cleanup level for gasoline is lower than if the groundwater did not contain benzene. Gasoline was detected in MW-1 at concentrations above MTCA and appears to move off site. Concentrations of other VOCs in MW-1 appear to be below MTCA criteria. Gasoline was detected in MW-3 at a concentration below MTCA. No petroleum related VOCs were detected. This well is downgradient of the potential USTs and MW-1.
- Low concentrations of lubricating oil were detected in the some of the soil samples collected in the vicinity of buried anomalies identified during the geophysical survey. PCBs were not detected in these samples. This contamination may reflect releases from these anomalies. If so, higher concentrations could be anticipated. Alternatively, the detections may reflect variability within the fill material that is not associated with on-site releases.
- Elevated concentrations of PCE and TCE were detected in groundwater collected adjacent to the potential USTs on the west side of the property. The source is unknown. Shallow groundwater may be present in this area because of the coarse

backfill that is typically used to backfill a UST installation. This area would be addressed during tank removal activities.

- Concentrations of total arsenic and chromium in groundwater collected from MW-1 exceeded MTCA Method A cleanup levels. However, it is likely that these low exceedances could be attributed to turbidity because these elements were not detected in the dissolved phase.

## 5.2 East Side of Property

- Elevated concentrations of PCE were encountered adjacent to the large anomaly . The anomaly is located on the east side of the property, approximately 50 feet north of the former Building C. PCE concentrations decrease further from the anomaly, indicating that it is a potential source. Because a laundromat occupied Building C in 1943, the source of the HVOCs is likely from a dry cleaning operation, within the laundromat. No tanks were documented for the business. Closure of the tank should be accomplished prior to site development
- PCE concentrations in groundwater and soil at the east and southeast property boundaries indicate that the contaminant is likely migrating off site, at levels that exceed MTCA Method A cleanup levels.
- The PCE does not appear to have degraded, as only low concentrations of breakdown analytes (TCE, DCE, and vinyl chloride) have been detected in soil and groundwater.
- Future site remediation activities on the east side of the property must comply with RCRA. Because the PCE is likely associated with dry cleaning operations, soil excavated from the site, as well as other solid waste contaminated with HVOCs including the likely UST, would be designated a listed Dangerous Waste F002 (spent solvent, under RCRA).

## 6.0 LIMITATIONS

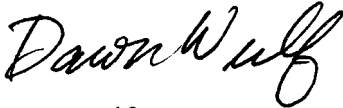
Within the limitations of scope, schedule, and budget, Shannon & Wilson, Inc. has prepared this report in a professional manner, using that level of skill and care normally exercised for similar projects under similar conditions by reputable and competent environmental consultants currently practicing in this area.

The scope of work was intended to address only those environmental concerns with significant potential to result in contamination of the subject property. The sampling effort was considered limited in extent and served as a screening effort only. It was not intended to assess the lateral or vertical extent of soil and/or groundwater contamination.

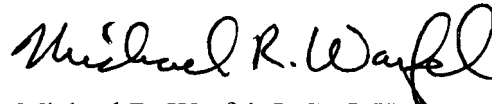
The data presented in this report are based on limited research and sampling at the site and should be considered representative at the time of our observations. Other areas of contamination that were not obvious during our site work could be present at the site. Shannon & Wilson, Inc. is not responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. We also note that the facts and conditions referenced in this report may change over time, and that the conclusions and recommendations set forth here are applicable to the facts and conditions as described only at the time of this report. We believe that the conclusions stated here are factual, but no guarantee is made or implied.

This report was prepared for the exclusive use of Sound Transit and their representatives, and in no way guarantees that any agency or its staff will reach the same conclusions as Shannon & Wilson, Inc. To help you and others in understanding the limitations of our report, Shannon & Wilson, Inc. has prepared Appendix E, "Important Information About Your Geotechnical/Environmental Report."

**SHANNON & WILSON, INC.**



Dawn Wulf  
Senior Principal Hydrogeologist



Michael R. Warfel, L.G., L.H.C.  
Vice President

DBW:DJR:ACT:MRW/djr

## 7.0 REFERENCES

- Dragun, J., and Chaisson, A., 1991, Elements in North American soils: Prepared by Charles Dragun and Andrew Chaisson for Hazardous Materials Control Resources Institute, Greenbelt, Md.
- Shannon & Wilson, Inc., 2005, Advanced conceptual engineering, geotechnical data report, Sound Transit, North Link Light Rail: Report prepared by Shannon & Wilson, Inc., Seattle, Wash., for Central Puget Sound Regional Transit Authority, Wash., 2 v., project no. 21-1-08109-070, April.
- Washington State Department of Ecology (Ecology), 2001, Model Toxics Control Act cleanup regulation, chapter 173-340 Washington Administration Code (WAC): Olympia, Wash., Washington State Department of Ecology, publication No. 94-06, amended February 12.
- White Shield, Inc. (White Shield), 2000, Phase I environmental site assessment, site location Key Bank, 1000 NE 45<sup>th</sup> Street, Seattle, Washington: Prepared by White Shield, 1620 140<sup>th</sup> Avenue NE, Suite 100, Bellevue, Washington, for Universal Field Services, Inc., September 22.

**TABLE 1  
SAMPLE SUMMARY  
KEY BANK PROPERTY**

Boring/ Well Designation	DOE Well Tag ID #	Sample ID	Sample Depth	Well Screen Interval	Media	Date Sampled	Purpose of Sampling	Metals/ EPA 200.8	PCBs/ SW8082	Diesel/Oil/ NWTPH-Dx	Gasoline/ NWTPH-Gx	VOCs- HVOCS/ SW8260B	TCLP- VOCs
<b>West Side/Building and Parking Lot - Vicinity of former service station (Building B)</b>													
GP-1		GP-1-11:10	10.0	--	Soil	09/22/11	Evaluate potential releases to soil from adjacent/upgradient property (existing/historic dealership autobody and paintshop)	X	X	X	X	X	
GP-2		GP-2-11:9	9.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies and upgradient properties	X		X	X	X	
GP-3		GP-3-11:13	13.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X		X	X	X	
		GP-3-11:GW			Water	09/22/11	Evaluate potential releases to water from subsurface anomalies (USTs)				X	X	
GP-4		GP-4-11:9.5	9.5	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X		X	X	X	
GP-5		GP-5-11:13	13.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X	X	X	X	X	
GP-6		GP-6-11:13	13.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X	X	X	X	X	
GP-7		GP-7-11:14	14.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X		X	X	X	
GP-8		GP-8-11:14	14.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X		X	X	X	
GP-9		GP-9-11:13	13.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomalies (USTs)	X		X	X	X	
MW-1	BHJ-554	SW-MW1-11:13	13.0	--	Soil	10/06/11	Evaluate potential releases to soil from subsurface anomalies (USTs) and confirmed onsite soil petroleum contamination	X		X	X	X	
		SW-MW1-11:25	25.0	--	Soil	10/06/11	Evaluate potential releases to soil and/or groundwater from subsurface anomalies (USTs) and confirmed onsite soil petroleum contamination	X		X	X	X	
		MW-1		5'-25'	Water	10/13/11	Evaluate potential releases to groundwater from subsurface anomalies (USTs) and confirmed onsite soil petroleum contamination	X		X	X	X	
<b>East Side/Parking Lot - North of former Building A</b>													
GP-10		GP-10-11:10	10.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomaly	X		X	X	X	
GP-11		GP-11-11:10	10.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomaly	X		X	X	X	
GP-12		GP-12-11:10	10.0	--	Soil	09/22/11	Evaluate potential releases to soil from subsurface anomaly	X	X	X	X	X	
GP-13		GP-13:4.5	4.5	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		GP-13:10.0	10.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-14		GP-14:5.5	5.5	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		GP-14:10.5	10.5	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-15		GP-15:5.0	5.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		GP-15:12.0	12.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-16		GP-16:8.0	8.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	X
		GP-16:11.5	11.5	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-17		GP-17:6.0	6.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate the western extent of HVOC contamination discovered in adjacent geoprobes					X	
		GP-17:14.0	14.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-18		GP-18:11.0	11.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate the eastern extent of HVOC contamination discovered in adjacent geoprobes (east side of alley)					X	
GP-19		GP-19:11.0	11.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate the eastern extent of HVOC contamination discovered in adjacent geoprobes					X	

**TABLE 1  
SAMPLE SUMMARY  
KEY BANK PROPERTY**

Boring/ Well Designation	DOE Well Tag ID #	Sample ID	Sample Depth	Well Screen Interval	Media	Date Sampled	Purpose of Sampling	Metals/ EPA 200.8	PCBs/ SW8082	Diesel/Oil/ NWTPH-Dx	Gasoline/ NWTPH-Gx	VOCs- HVOCS/ SW8260B	TCLP- VOCs
GP-20		GP-20:4.0	4.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		GP-20:9.0	9.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-21		GP-21:6.0	6.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		GP-21:12.0	12.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
GP-22		GP-22:5.5	5.5	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate the western extent of HVOC contamination discovered in adjacent geoprobes (west side of alley)					X	
		GP-22:13.0	13.0	--	Soil	10/14/11	Evaluate potential releases to soil from subsurface anomaly and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
STKP		STKP:1	1.0	--	Soil	10/21/11	Determine if soil in drum of spoils from the geoprobes was a characteristic Dangerous Waste based on the results of the TCLP					X	X
MW-2	BHI-555	SW-MW2-11:5	5.0	--	Soil	10/06/11	Evaluate potential releases to soil from adjacent/upgradient properties (autobody shops and used car dealerships)					X	
		SW-MW2-11:10	10.0	--	Soil	10/06/11	Evaluate potential releases to soil from adjacent/upgradient properties (autobody shops and used car dealerships)					X	
		SW-MW2-11:16.5	16.5	--	Soil	10/06/11	Evaluate potential releases to soil from adjacent/upgradient properties (autobody shops and used car dealerships)	X		X	X	X	
		SW-MW2-11:20	20.0	--	Soil	10/06/11	Evaluate potential releases to soil and/or groundwater from adjacent/upgradient properties (autobody shops and used car dealerships)					X	
		SW-MW2-11:25	25.0	--	Soil	10/06/11	Evaluate potential releases to soil and/or groundwater from adjacent/upgradient properties (autobody shops and used car dealerships)	X		X	X	X	
		MW-2		15'-25'	Water	10/13/11	Evaluate potential releases to groundwater from adjacent/upgradient properties	X		X	X	X	
MW-3	BHI-556	SW-MW3-11:5	5.0	--	Soil	10/07/11	Evaluate potential releases to soil from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		SW-MW3-11:10	10.0	--	Soil	10/07/11	Evaluate potential releases to soil from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes	X		X	X	X	
		SW-MW3-11:18	18.0	--	Soil	10/07/11	Evaluate potential releases to soil from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes	X		X	X	X	
		SW-MW3-11:25	25.0	--	Soil	10/07/11	Evaluate potential releases to soil from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		SW-MW3-11:30	30.0	--	Soil	10/07/11	Evaluate potential releases to soil from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		SW-MW3-11:35	35.0	--	Soil	10/07/11	Evaluate potential releases to soil from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes					X	
		MW-3		25'-35'	Water	10/13/11	Evaluate potential releases to groundwater from subsurface anomaly / upgradient properties and evaluate extent of HVOC contamination discovered in adjacent geoprobes				X	X	
Trip Blank		Trip Blank				10/13/11					X	X	

## Notes:

DOE = Department of Ecology

EPA = Environmental Protection Agency

ID = identification

HVOCS = halogenated volatile organic compounds

NWTPH-Dx = Northwest Total Petroleum hydrocarbons - diesel extended

NWTPH-Gx = Northwest Total Petroleum Hydrocarbons - gasoline

PCBs = polychlorinated biphenyls

TCLP = Toxicity Characteristic Leaching Procedure

UST = underground storage tank

VOCs = volatile organic compounds

**TABLE 2  
DETECTED ANALYTES IN SOIL**

Area		West Side								
Exploration Designation:	MTCA	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9
Sample Number	Method A	GP-1-11:10	GP-2-11:9	GP-3-11:13	GP-4-11:9.5	GP-5-11:13	GP-6-11:13	GP-7-11:14	GP-8-11:14	GP-9-11:13
Sample Depth (feet)	Cleanup	10	9	13	9.5	13	13	14	14	13
ANALYTE	Level									
<b>Petroleum Hydrocarbons (mg/kg)</b>										
Gasoline Range Organics	100	6.3 U	6.4 U	<b>830</b>	7.6 U	<b>410</b>	6.2 U	60	50	6.2 U
Lube Oil	2000	660	57 U	58 U	61 U	77	330	58 U	57 U	55 U
<b>VOCs (mg/kg)</b>										
Acetone		0.0068 U	0.0067 U	0.0067 U	0.007 U	0.36 U	0.0061 U	0.32 U	0.0066 U	0.0087 U
Carbon Disulfide		0.0014 U	0.0013 U	0.0013 U	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0013 U	0.0017 U
Ethylbenzene	6	0.0014 U	0.0013 U	0.022	0.0014 U	0.072 U	0.0012 U	0.092	0.2	0.0017 U
m, p-Xylene	9	0.0027 U	0.0027 U	0.061	0.0028 U	0.14 U	0.0024 U	0.13 U	0.21	0.0035 U
o-Xylene	9	0.0014 U	0.0013 U	0.021	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0042	0.0017 U
Isopropylbenzene		0.0014 U	0.0013 U	0.0032	0.0014 U	0.076	0.0012 U	0.075	0.23	0.0017 U
n-Propylbenzene		0.0014 U	0.0013 U	0.0051	0.0014 U	0.12	0.0012 U	0.098	0.17	0.0017 U
1,3,5-Trimethylbenzene		0.0014 U	0.0013 U	0.011	0.0014 U	0.17	0.0012 U	0.16	0.25	0.0017 U
1,2,4-Trimethylbenzene		0.0014 U	0.0013 U	0.033	0.0014 U	0.25	0.0012 U	0.34	0.14	0.0017 U
Sec-Butylbenzene		0.0014 U	0.0013 U	0.0017	0.0014 U	0.12	0.0012 U	0.064 U	0.095	0.0017 U
p-Isopropyltoluene		0.0014 U	0.0013 U	0.0018	0.0014 U	0.12	0.0012 U	0.064 U	0.12	0.0017 U
Naphthalene	5	0.0014 U	0.0013 U	0.015	0.0014 U	0.072 U	0.0012 U	0.064 U	0.083	0.0017 U
Tetrachloroethene	0.05	0.0014 U	0.0013 U	0.0013 U	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0013 U	0.0017 U
Trichloroethene	0.03	0.0014 U	0.0013 U	0.0013 U	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0013 U	0.0017 U
Vinyl Chloride		0.0014 U	0.0013 U	0.0013 U	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0013 U	0.0017 U
1,1-Dichloroethene		0.0014 U	0.0013 U	0.0013 U	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0013 U	0.0017 U
cis-1,2-Dichloroethene		0.0014 U	0.0013 U	0.0013	0.0014 U	0.072 U	0.0012 U	0.064 U	0.0013 U	0.0017 U
<b>Metals (mg/kg)</b>										
Chromium	2,000	47	37	30	54	53	45	38	45	38

**TABLE 2  
DETECTED ANALYTES IN SOIL**

Area		East Side						
Exploration Designation:	MTCA	GP-10	GP-11	GP-12	GP-13		GP-14	
Sample Number	Method A	GP-10-11:10	GP-11-11:10	GP-12-11:10	GP-13:4.5	GP-13:10.0	GP-14:5.5	GP-14:10.5
Sample Depth (feet)	Cleanup	10	10	10	4.5	10	5.5	10.5
ANALYTE	Level							
<b>Petroleum Hydrocarbons (mg/kg)</b>								
Gasoline Range Organics	100	7.2 U	15	7.8 U	NA	NA	NA	NA
Lube Oil	2000	61 U	60 U	59	NA	NA	NA	NA
<b>VOCs (mg/kg)</b>								
Acetone		0.0074 U	0.0086 U	0.0082 U	NA	NA	NA	NA
Carbon Disulfide		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
Ethylbenzene	6	0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
m, p-Xylene	9	0.003 U	0.0034 U	0.0033 U	NA	NA	NA	NA
o-Xylene	9	0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
Isopropylbenzene		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
n-Propylbenzene		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
Sec-Butylbenzene		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
p-Isopropyltoluene		0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
Naphthalene	5	0.0015 U	0.0017 U	0.0016 U	NA	NA	NA	NA
Tetrachloroethene	0.05	0.027	<b>15</b>	<b>0.1</b>	0.029	<b>0.22</b>	0.021	<b>0.75</b>
Trichloroethene	0.03	0.0015 U	0.0021	0.0016 U	0.00058 U	0.0023	0.00059 U	0.0016
Vinyl Chloride		0.0015 U	0.0017 U	0.0016 U	0.00058 U	0.00058 U	0.00059 U	0.00059 U
1,1-Dichloroethene		0.0015 U	0.0017 U	0.0016 U	0.00058 U	0.00058 U	0.00059 U	0.00059 U
cis-1,2-Dichloroethene		0.0015 U	0.0017 U	0.0016 U	0.00058 U	0.00058 U	0.00059 U	0.00059 U
<b>Metals (mg/kg)</b>								
Chromium	2,000	59	56	56	NA	NA	NA	NA



**TABLE 2  
DETECTED ANALYTES IN SOIL**

Area		East Side								
Exploration Designation:	MTCA	GP-15		GP-16		GP-17		GP-18	GP-19	GP-20
Sample Number	Method A	GP-15:5.0	GP-15:12.0	GP-16:8.0	GP-16:11.5	GP-17:6.0	GP-17:14.0	GP-18:11.0	GP-19:11.0	GP-20:4.0
Sample Depth (feet)	Cleanup	5	12	8	11.5	6	14	11	11	4
ANALYTE	Level									
<i>Petroleum Hydrocarbons (mg/kg)</i>										
Gasoline Range Organics	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>VOCs (mg/kg)</i>										
Acetone		NA	NA	0.0023 U	NA	NA	NA	NA	NA	NA
Carbon Disulfide		NA	NA	0.00046 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	6	NA	NA	0.00046 U	NA	NA	NA	NA	NA	NA
m, p-Xylene	9	NA	NA	0.00092 U	NA	NA	NA	NA	NA	NA
o-Xylene	9	NA	NA	0.00046 U	NA	NA	NA	NA	NA	NA
Isopropylbenzene		NA	NA	0.00046 U	NA	NA	NA	NA	NA	NA
n-Propylbenzene		NA	NA	0.00046 U	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene		NA	NA	0.0046	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene		NA	NA	0.0013	NA	NA	NA	NA	NA	NA
Sec-Butylbenzene		NA	NA	0.0021	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene		NA	NA	0.014	NA	NA	NA	NA	NA	NA
Naphthalene	5	NA	NA	0.00046 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.05	<b>0.13</b>	<b>8.4</b>	<b>98</b>	<b>4.5</b>	<b>1.1</b>	0.032	0.019	<b>0.064</b>	0.0092
Trichloroethene	0.03	0.00061 U	<b>0.075</b>	0.002	<b>0.04</b>	0.0017	0.00066 U	0.00059 U	0.00058 U	0.00048 U
Vinyl Chloride		0.00061 U	0.00099	0.00046 U	0.00097 U	0.00054 U	0.00066 U	0.00059 U	0.00058 U	0.00048 U
1,1-Dichloroethene		0.00061 U	0.0013	0.00046 U	0.00097 U	0.00054 U	0.00066 U	0.00059 U	0.00058 U	0.00048 U
cis-1,2-Dichloroethene		0.00061 U	0.001	0.00046 U	0.00097 U	0.00054 U	0.00059 U	0.00059 U	0.00058 U	0.00048 U
<i>Metals (mg/kg)</i>										
Chromium	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 2  
DETECTED ANALYTES IN SOIL**

Area		East Side						West Side	
Exploration Designation:	MTCA	GP-20	GP-21			GP-22		MW-1	
Sample Number	Method A	GP-20:9.0	GP-21:6.0	GP-21:12.0	GP-22:5.5	GP-22:13.0	STKP:1	SW-MW1-11:13	SW-MW1-11:25
Sample Depth (feet)	Cleanup	9	6	12	5.5	13	grab	13	25
ANALYTE	Level								
<b>Petroleum Hydrocarbons (mg/kg)</b>									
Gasoline Range Organics	100	NA	NA	NA	NA	NA	NA	5.6 U	6.3 U
Lube Oil	2000	NA	NA	NA	NA	NA	NA	54 U	58 U
<b>VOCs (mg/kg)</b>									
Acetone		NA	NA	NA	NA	NA	NA	0.0092	0.0058 U
Carbon Disulfide		NA	NA	NA	NA	NA	NA	0.0014	0.0012 U
Ethylbenzene	6	NA	NA	NA	NA	NA	NA	0.0012 U	0.0012 U
m, p-Xylene	9	NA	NA	NA	NA	NA	NA	0.0023 U	0.0023 U
o-Xylene	9	NA	NA	NA	NA	NA	NA	0.0012 U	0.0012 U
Isopropylbenzene		NA	NA	NA	NA	NA	NA	0.0012 U	0.0012 U
n-Propylbenzene		NA	NA	NA	NA	NA	NA	0.0012 U	0.0012 U
1,3,5-Trimethylbenzene		NA	NA	NA	NA	NA	NA	0.003	0.0012 U
1,2,4-Trimethylbenzene		NA	NA	NA	NA	NA	NA	0.004	0.0012 U
Sec-Butylbenzene		NA	NA	NA	NA	NA	NA	0.0012 U	0.0012 U
p-Isopropyltoluene		NA	NA	NA	NA	NA	NA	0.0012	0.0012 U
Naphthalene	5	NA	NA	NA	NA	NA	NA	0.0012 U	0.0012 U
Tetrachloroethene	0.05	0.036	<b>0.18</b>	<b>1</b>	0.0036	0.0023	0.017	0.0012 U	0.0012 U
Trichloroethene	0.03	0.00063 U	0.00053 U	0.0011	0.00065 U	0.0019	0.00054 U	0.0012 U	0.0012 U
Vinyl Chloride		0.00063 U	0.00053 U	0.00058 U	0.00065 U	0.00057 U	0.00054 U	0.0012 U	0.0012 U
1,1-Dichloroethene		0.00063 U	0.00053 U	0.00058 U	0.00065 U	0.00057 U	0.00054 U	0.0012 U	0.0012 U
cis-1,2-Dichloroethene		0.00063 U	0.00053 U	0.00058 U	0.00065 U	0.00057 U	0.00054 U	0.0012 U	0.0012 U
<b>Metals (mg/kg)</b>									
Chromium	2,000	NA	NA	NA	NA	NA	NA	33	28

**TABLE 2  
DETECTED ANALYTES IN SOIL**

Area		East Side				
Exploration Designation:	MTCA	MW-2				
Sample Number	Method A	SW-MW2-11:5	SW-MW2-11:10	SW-MW2-11:16.5	SW-MW2-11:20	SW-MW2-11:25
Sample Depth (feet)	Cleanup	5	10	16.5	20	25
ANALYTE	Level					
<b>Petroleum Hydrocarbons (mg/kg)</b>						
Gasoline Range Organics	100	NA	NA	6.1 U	NA	6.3 U
Lube Oil	2000	NA	NA	58 U	NA	61 U
<b>VOCs (mg/kg)</b>						
Acetone		NA	NA	0.025	NA	0.007 U
Carbon Disulfide		NA	NA	0.0018	NA	0.0014 U
Ethylbenzene	6	NA	NA	0.0015 U	NA	0.0014 U
m, p-Xylene	9	NA	NA	0.003 U	NA	0.0028 U
o-Xylene	9	NA	NA	0.0015 U	NA	0.0014 U
Isopropylbenzene		NA	NA	0.0015 U	NA	0.0014 U
n-Propylbenzene		NA	NA	0.0015 U	NA	0.0014 U
1,3,5-Trimethylbenzene		NA	NA	0.0015 U	NA	0.0014 U
1,2,4-Trimethylbenzene		NA	NA	0.0015 U	NA	0.0014 U
Sec-Butylbenzene		NA	NA	0.0015 U	NA	0.0014 U
p-Isopropyltoluene		NA	NA	0.0015 U	NA	0.0014 U
Naphthalene	5	NA	NA	0.0015 U	NA	0.0014 U
Tetrachloroethene	0.05	0.00089 U	0.0012 U	0.0015 U	0.0017 U	0.0014 U
Trichloroethene	0.03	0.00089 U	0.0012 U	0.0015 U	0.0017 U	0.0014 U
Vinyl Chloride		0.00089 U	0.0012 U	0.0015 U	0.0017 U	0.0014 U
1,1-Dichloroethene		0.00089 U	0.0012 U	0.0015 U	0.0017 U	0.0014 U
cis-1,2-Dichloroethene		0.00089 U	0.0012 U	0.0015 U	0.0017 U	0.0014 U
<b>Metals (mg/kg)</b>						
Chromium	2,000	NA	NA	30	NA	35

**TABLE 2  
DETECTED ANALYTES IN SOIL**

Area		East Side					
Exploration Designation:	MTCA	MW-3					
Sample Number	Method A	SW-MW3-11:5	SW-MW3-11:10	SW-MW3-11:18	SW-MW3-11:25	SW-MW3-11:30	SW-MW3-11:35
Sample Depth (feet)	Cleanup	5	10	18	25	30	35
ANALYTE	Level						
<b>Petroleum Hydrocarbons (mg/kg)</b>							
Gasoline Range Organics	100	NA	6.6 U	6.3 U	NA	NA	NA
Lube Oil	2000	NA	60 U	59 U	NA	NA	NA
<b>VOCs (mg/kg)</b>							
Acetone		NA	0.0093	0.0068 U	NA	NA	NA
Carbon Disulfide		NA	0.0028	0.0014 U	NA	NA	NA
Ethylbenzene	6	NA	0.001 U	0.0014 U	NA	NA	NA
m, p-Xylene	9	NA	0.0021 U	0.0027 U	NA	NA	NA
o-Xylene	9	NA	0.001 U	0.0014 U	NA	NA	NA
Isopropylbenzene		NA	0.001 U	0.0014 U	NA	NA	NA
n-Propylbenzene		NA	0.001 U	0.0014 U	NA	NA	NA
1,3,5-Trimethylbenzene		NA	0.001 U	0.0014 U	NA	NA	NA
1,2,4-Trimethylbenzene		NA	0.001 U	0.0014 U	NA	NA	NA
Sec-Butylbenzene		NA	0.001 U	0.0014 U	NA	NA	NA
p-Isopropyltoluene		NA	0.001 U	0.0014 U	NA	NA	NA
Naphthalene	5	NA	0.001 U	0.0014 U	NA	NA	NA
Tetrachloroethene	0.05	0.014	0.025	<b>0.096</b>	0.048	0.038	0.033
Trichloroethene	0.03	0.0013 U	0.0032	0.0014 U	0.0013 U	0.0016 U	0.0025 U
Vinyl Chloride		0.0013 U	0.001 U	0.0014 U	0.0013 U	0.0016 U	0.0025 U
1,1-Dichloroethene		0.0013 U	0.001 U	0.0014 U	0.0013 U	0.0016 U	0.0025 U
cis-1,2-Dichloroethene		0.0013 U	0.001 U	0.0014 U	0.0013 U	0.0016 U	0.0025 U
<b>Metals (mg/kg)</b>							
Chromium	2,000	NA	47	36	NA	NA	NA

Notes: MTCA = Model Toxics Control Act  
mg/kg = milligrams per kilogram  
VOCs = volatile organic compounds  
U = not detected at the reporting limit  
NA = not analyzed  
Bold = Exceeds MTCA Method A cleanup criteria

**TABLE 3  
DETECTED ANALYTES IN GROUNDWATER**

Area		West Side		East Side	
Exploration Designation:	MTCA	GP-3	MW-1	MW-2	MW-3
Sample Number	Method A	GP-3-11:GW	MW-1	MW-2	MW-3
Sample Depth	Cleanup				
ANALYTE	Level				
<b><i>Petroleum Hydrocarbons (ug/L)</i></b>					
Gasoline Range Organics	800	<b>54000</b>	<b>1100</b>	400 U	160
<b><i>VOCs (ug/L)</i></b>					
Chloroform		10 U	0.22	0.37	1 U
Ethylbenzene	700	<b>1100</b>	17	0.2 U	1 U
m, p-Xylene	1,000	<b>3000</b>	11	0.4 U	2 U
o-Xylene	1,000	990	1.1	0.2 U	1 U
Isopropylbenzene		95	8.5	0.2 U	1 U
n-Propylbenzene		130	3.7	0.2 U	1 U
1,3,5-Trimethylbenzene		260	22	0.2 U	1 U
1,2,4-Trimethylbenzene		910	15	0.2 U	1 U
Sec-Butylbenzene		14	2.9	0.2 U	1 U
tert-Butylbenzene		10 U	1	0.2 U	1 U
p-Isopropyltoluene		20	2.3	0.2 U	1 U
Naphthalene	160	<b>320</b>	2.2	1 U	5 U
Toluene	1,000	150	1 U	1 U	5 U
Tetrachloroethene	5	<b>11</b>	0.2 U	0.2 U	<b>130</b>
Trichloroethene	5	10 U	0.2 U	0.2 U	1.8
cis-1,2-Dichloroethene		44	0.2 U	0.2 U	1 U
<b><i>Metals (ug/L)</i></b>					
Arsenic (total)	5	NA	<b>9.9</b>	4.6	NA
Chromium (total)	50	NA	<b>78</b>	32	NA
Lead (total)	15	NA	10	5.2	NA

Notes: MTCA = Model Toxics Control Act

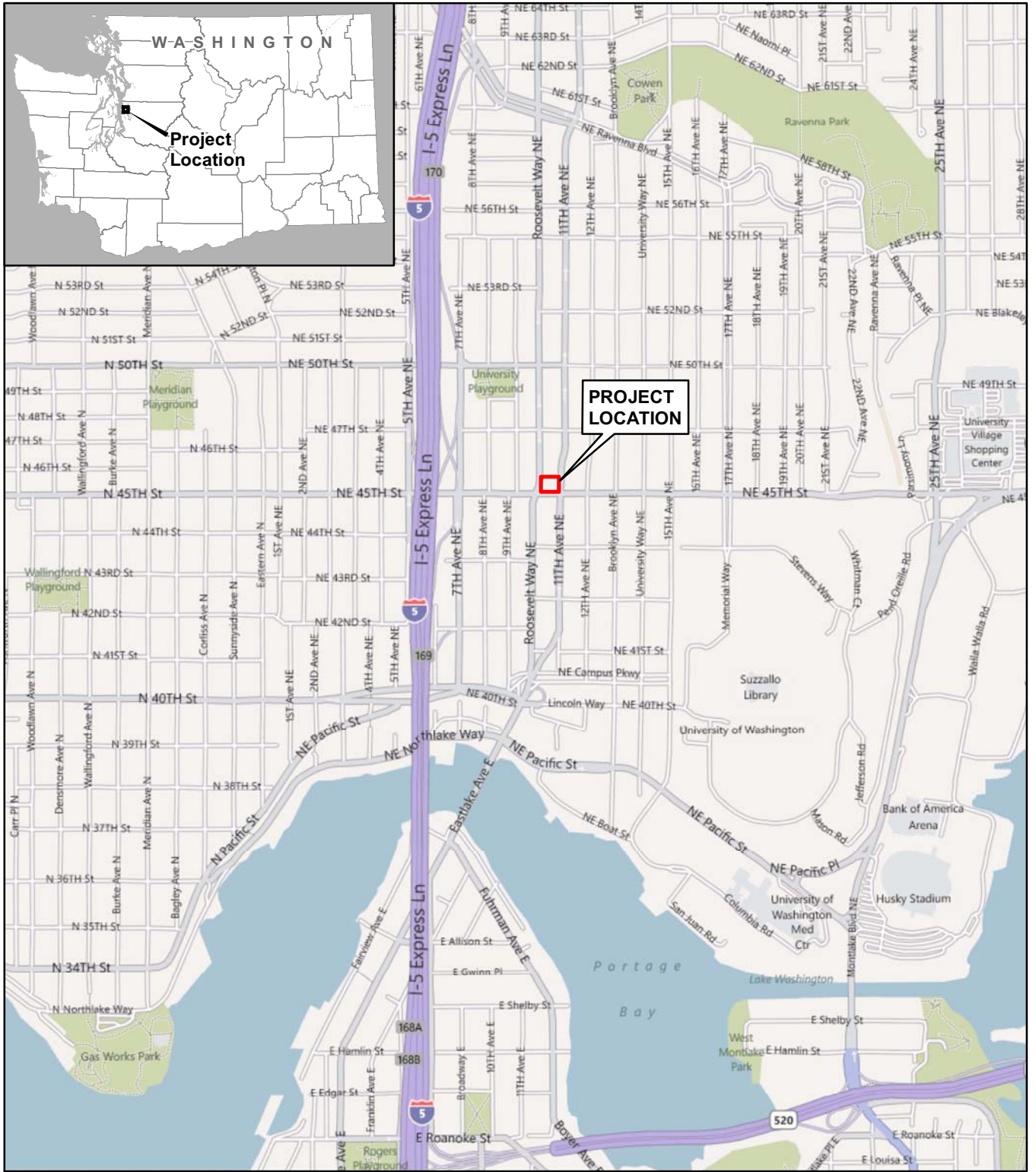
ug/L = micrograms per Liter

VOCs = volatile organic compounds

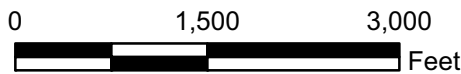
U = not detected at the reporting limit

NA = not analyzed

**Bold** = Exceeds MTCA Method A cleanup criteria



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Sound Transit  
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Seattle, Washington

**VICINITY MAP**

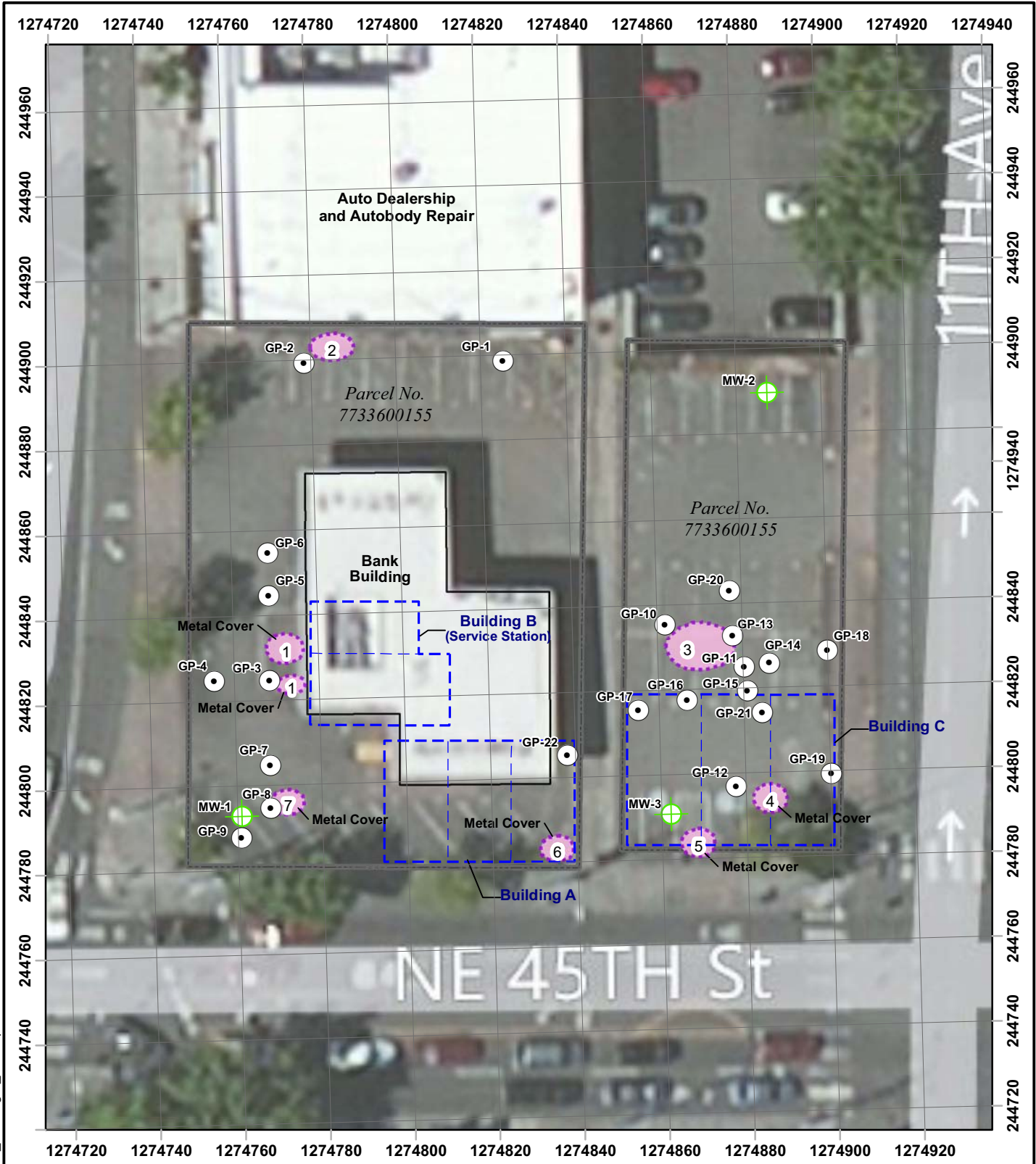
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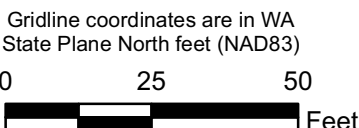
**FIG. 1**

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**LEGEND**

- Geoprobe
- Monitoring Well
- Historic Building
- Subsurface Anomaly
- Parcel Boundary



Sound Transit  
Former Key Bank  
Seattle, Washington

**SITE AND EXPLORATION PLAN**

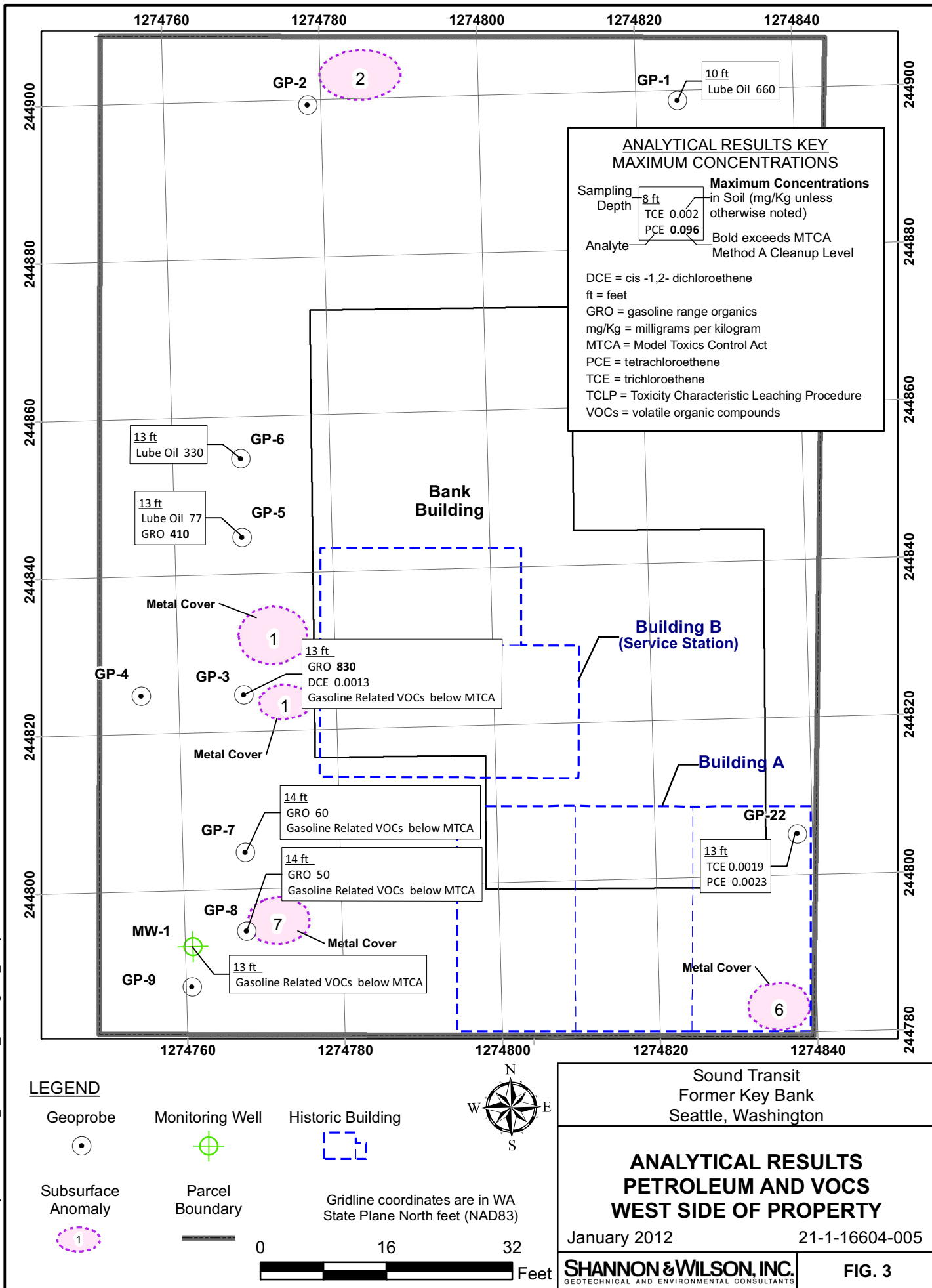
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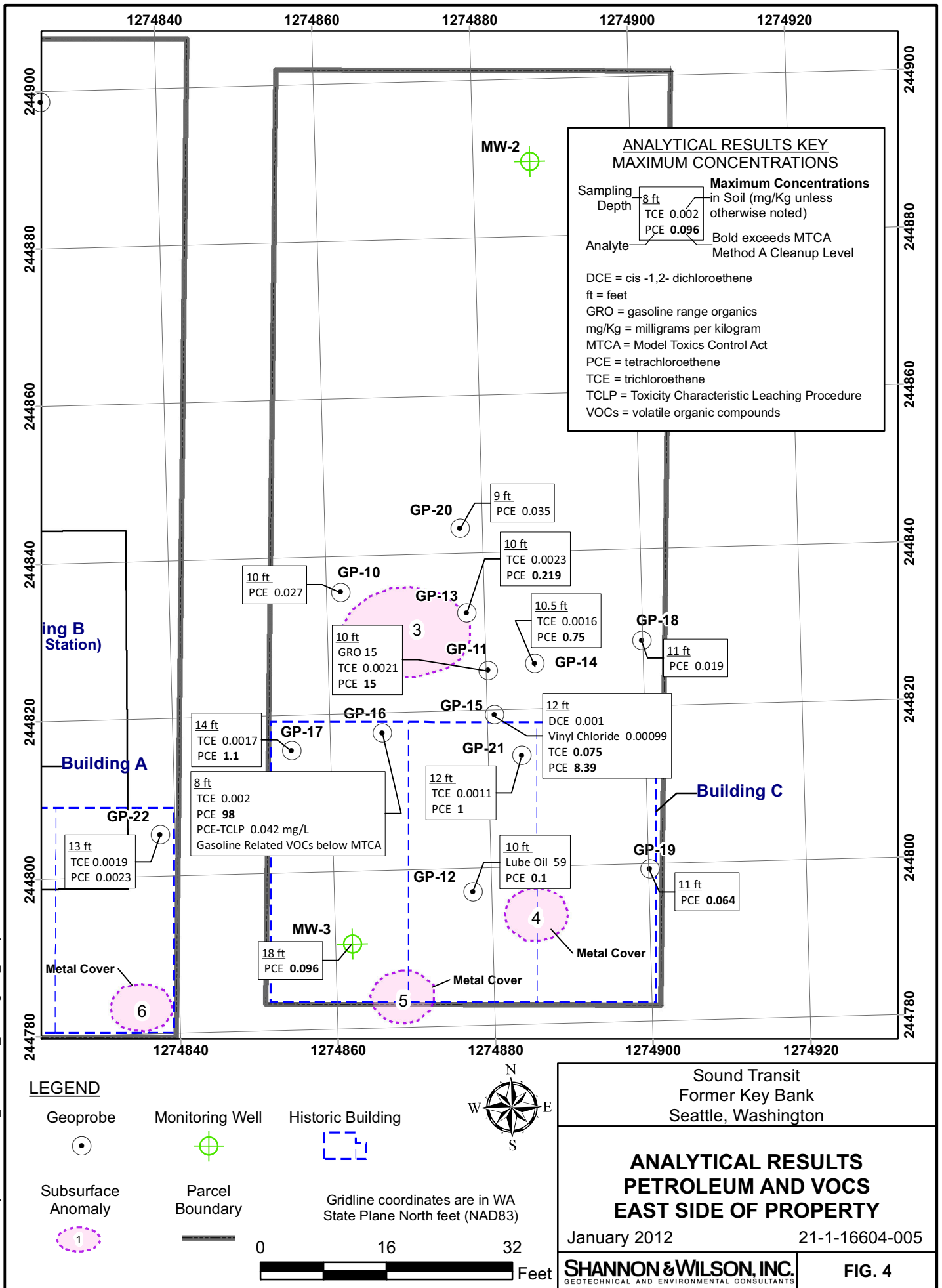
**FIG. 2**

Filename: T:\Project\21-116604\_NE45THAV\_mxd\Fig-3-4\_AnalyticalResults.mxd Date: 12/15/2011 beo





Filename: T:\Project\21-116604\_NE45THAV\_mxd\Fig-3-4\_AnalyticalResults.mxd Date: 12/15/2011 beo



**LEGEND**

- Geoprobe
  - Monitoring Well
  - Historic Building
  - Subsurface Anomaly
  - Parcel Boundary
- Gridline coordinates are in WA State Plane North feet (NAD83)
- 0 16 32 Feet

Sound Transit  
Former Key Bank  
Seattle, Washington

**ANALYTICAL RESULTS  
PETROLEUM AND VOCs  
EAST SIDE OF PROPERTY**

January 2012 21-1-16604-005

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**FIG. 4**

**APPENDIX A**  
**STANDARD FIELD METHODS AND BORING LOGS**

**APPENDIX A**  
**STANDARD FIELD METHODS AND BORING LOGS**

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West Side of Property

A-2 Log of Geoprobe GP-1

A-3 Log of Geoprobe GP-2

A-4 Log of Geoprobe GP-3

A-5 Log of Geoprobe GP-4

A-6 Log of Geoprobe GP-5

A-7 Log of Geoprobe GP-6

A-8 Log of Geoprobe GP-7

A-9 Log of Geoprobe GP-8

East Side of Property

A-10 Log of Geoprobe GP-9

A-11 Log of Geoprobe GP-10

A-12 Log of Geoprobe GP-11

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A-14 Log of Geoprobe GP-13

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A-17 Log of Geoprobe GP-16

A-18 Log of Geoprobe GP-17

A-19 Log of Geoprobe GP-18

A-20 Log of Geoprobe GP-19

A-21 Log of Geoprobe GP-21

A-22 Log of Geoprobe GP-22

A-22 Log of Geoprobe GP-23

West Side of Property

A-23 Log of Boring SW-MW-1 (2 sheets)

East Side of Property

A-24 Log of Boring SW-MW-2 (2 sheets)

A-25 Log of Boring SW-MW-3 (2 sheets)

## APPENDIX A

### STANDARD FIELD METHODS AND BORING LOGS

This document provides descriptions of Shannon & Wilson's standard field methods. The subject property is located at 1000 NE 45<sup>th</sup> Street in Seattle, Washington. The project consisted of performing a Phase II Environmental Site Assessment to assess potential soil and groundwater contamination.

Standard investigation methods, including sample collection, field screening, documentation procedures, and selected analyses, are described briefly in the following subsections. Sample collection and documentation were completed in accordance with Shannon & Wilson's standard operating procedures.

#### A.1 PRE-SAMPLING ACTIVITIES

Prior to sampling, a Shannon & Wilson representative notified the Underground Utilities Location Center (1-800-424-5555) at least 48 hours before the start of subsurface work at the site, and subcontracted a private service to locate utilities within a 20-foot radius of each proposed location. We also coordinated with Mr. Steve Sawyer (Sound Transit) for site access and control.

#### A.2 SAMPLE COLLECTION

The investigation consisted of advancing twenty-two geoprobes (Figures A-2 through A-22) and three soil borings (Figures A-23 through A-25), and installing three groundwater monitoring wells at the site. Twelve geoprobes were advanced on September 22, 2011, and the remaining ten were advanced on October 14, 2011. The soil borings and monitoring well installation activities occurred on October 6 and 7, 2011, using a standard truck-mounted hollow-stem auger drill rig. Cascade Drilling of Woodinville, Washington, conducted the initial probe study and borings/monitoring wells under subcontract to Shannon & Wilson, Inc. ESN Northwest (Olympia, Washington) conducted the second probe study, also under subcontract to Shannon & Wilson, Inc. The three new wells were developed on October 11, 2011, and then groundwater samples were collected on October 13, 2011.

During site work, soil samples were collected to evaluate the potential for soil and groundwater contamination. Sample handling procedures are summarized in Section A.3. Field screening procedures are presented in Section A.4.

### **A.2.1 General Soil Sampling Procedure**

All soil was visually described using Shannon & Wilson's soil classification procedure, which is a modified version of the Unified Soil Classification System (Figure A-1). The soil descriptions were recorded on boring field logs. When a soil sample was selected for chemical analysis, the soil sample was placed into laboratory-supplied glassware using disposable, stainless steel spoons or disposable plastic syringes. Subsurface soil sampling was conducted using a geoprobe rig and hollow-stem auger drilling rig, as discussed below.

### **A.2.2 GeoProbe Sampling**

Subsurface soil sampling was accomplished using a truck-mounted geoprobe rig. A geoprobe is a direct push boring rig that advances a 2-inch-diameter, 4-foot-long probe sampler using percussive force. Soil samples were collected continuously from ground surface to the total depth of the boring. Soil samples were collected by driving the probe sampler into undisturbed soil. The probe sampler was fitted with removable plastic sampling (sleeves) tubes that were advanced into the subsurface and retrieved. Upon retrieval of the soil sample, the plastic tube was sliced open and the soil was field-screened for contaminants. Soil samples were collected with clean, disposable, stainless steel spoons or disposable syringes and placed into laboratory-supplied containers. Soil cuttings and other investigation-derived waste (IDW) were collected in drums.

### **A.2.3 Hollow-stem Auger and Limited Access Drilling**

Subsurface soil sampling was also accomplished using a truck-mounted hollow-stem auger, machine-driven drill rig equipped with 4¼-inch inside-diameter auger. Soil samples were collected using Standard Penetration Test procedures (ASTM International D 1586-84), modified by using a 3-inch outside-diameter, split-spoon sampler, and a 300-pound drop hammer. In MW-2, an obstruction was encountered at a depth of approximately 5 feet below ground surface (bgs). The boring was shifted approximately 5 feet east, to its current location.

Pertinent information, such as the number of blow counts and drilling action, were recorded on the boring logs. At each exploration, soil samples were collected at 2.5- or 5-foot intervals to the bottom of the boring for lithologic description and field screening. Soil cuttings and other IDW were collected in drums during drilling.

#### **A.2.4 Sampling**

In each borehole, soil samples were collected using a stainless steel, split-spoon sampler equipped with a sample catcher. Analytical samples were selected based on field screening results, sample depth, and depth to water. Soil samples for chemical analysis were recovered from the center portion of the soil in the sampler, unless contamination was noted in the top or bottom portions of the soil. Sample collection and handling is discussed in Section A.3.

#### **A.2.5 Monitoring Well Installation and Construction**

The three borings (SW-MW-1, SW-MW-2, and SW-MW-3) were completed as monitoring wells, in compliance with the Washington State standards for resource protection wells (Washington Administrative Code 173-162). The monitoring wells were constructed of new, commercially fabricated, threaded, flush-joint, polyvinyl chloride (PVC) with a minimum inner diameter of 2 inches. The riser pipe used in each well was Schedule 40 PVC, with each section joined by threaded, flush-joint couplings to form a watertight seal. The well screen in each well consisted of new, commercially fabricated, threaded, 10-foot-long, flush-joint, 2-inch-diameter, 0.01-inch machine-slotted screen. A threaded 0.5-inch PVC cap was provided for the bottom of each well. The top of each well was completed with a 2-inch expandable locking cap secured with a lock. No organic solvents or glue was used in joining the pipes. The well screen and riser pipe were installed through the augers with the screen positioned to intercept the water table and allow for seasonal fluctuation.

Following installation of the well cap and screen, a silica sand filter pack, appropriately graded for the screened interval, was poured in the annular space between the boring and the well screen to 2 to 3 feet above the screen. The augers were withdrawn incrementally as the sand was poured into the well. The 2 to 3 feet of filter pack above the top of the screen allows for some settlement of the filter pack and buffer between the top of the well intake and annular seal. The depth to the top of the filter pack was sounded with a weighted measuring tape to confirm the depth to the sand pack and to assure that bridging had not occurred in the borehole.

A bentonite seal was placed in the annulus above the filter pack to within 2 feet of the surface. The bentonite was installed in lifts, with each lift allowed to hydrate before placing the next lift. The bentonite was hydrated with clean, potable water as it was placed in the annular space.

The wells were completed flush with the elevation of the site by placing an 8-inch, flush-mounted, steel monument over the top of the borehole. The metal covers were set in place using

concrete. The seal around the cover was sloped away from the monitoring well to allow free draining of surface water.

#### **A.2.6 Well Development**

Water level measurements were obtained from the monitoring wells using a cleaned, electric water level indicator and the water level in the well and the total well depth were measured to calculate the volume of water present prior to well development. All measurements were taken from the north side of the casings.

Each monitoring well was developed by field personnel using a pump and surge method, using a surge block and a submersible pump. The static water level was measured both before and after development. Before development, each well was inspected for the presence of a floating free-product layer. Neither well had a floating free-product layer.

Development was considered complete when the entire screened interval had been surged, and little to no sediment remained at the bottom of the well (when the bottom of the well felt hard when measured with a tagline). Development water was drummed at the site.

#### **A.2.7 Groundwater Sampling**

Groundwater sampling was initiated approximately 24 hours after well development. Before sampling, the wells were again inspected for the presence of a floating free-product layer. No free-product layers were present, and each well was purged with a submersible pump to remove standing water so that a representative sample of groundwater could be collected. Purging was completed when field parameters measured during the purge had stabilized. Field parameters included pH, specific conductivity, salinity, temperature, total dissolved solids, turbidity, dissolved oxygen, and oxidation reduction potential. Purge water was drummed with the development water.

Monitoring wells SW-MW-1 and SW-MW-2 were sampled after purging was completed, with a submersible pump and disposable tubing. Field parameters were measured before purging and immediately before analytical sample collection. Because groundwater in SW-MW-3 did not significantly recharge after purging, a peristaltic pump was used to collect the groundwater sample. Samples submitted to the analytical laboratory were handled in accordance with procedures described in Section A.3.



### A.3 SAMPLE HANDLING

New nitrile gloves were worn by the sample handler during collection of each sample. All non-disposable sampling equipment was decontaminated between sample locations to prevent cross contamination. Field notes document site conditions and sample collection activities.

Samples collected for laboratory analysis were placed into laboratory-provided glassware. Samples were collected and containerized sequentially with the most volatile target analyte collected first. The preferred collection order for some of the more common analytes is: (a) volatile organics and petroleum and (b) metals. The sample container labels were completed using indelible ink. The samples were sealed in plastic bags, and then placed into a cooler and maintained at 4°C ( $\pm 2^\circ\text{C}$ ) with “blue ice.”

Sample information was recorded on chain-of-custody forms. These forms accompanied the samples to the laboratory. Samples were maintained under chain-of-custody until delivered to the analytical laboratory, OnSite Environmental, Inc. (OnSite), of Redmond, Washington.

### A.4 FIELD SCREENING METHODS

Field screening was performed on all samples to help evaluate the potential presence of contamination. Typically, at a non-hazardous waste site, the most likely locations to encounter contamination are in fill, at the water table interface, in the water table smear (fluctuation) zone, at fill/native soil contacts, and at pronounced changes in permeability. However, the location of contamination, if any, is site-dependent.

Field screening methods consisted of:

- Photoionization detector (PID) measurements
- Visual observations
- Olfactory observations

All three methods were used for the site. New nitrile gloves were worn by the field personnel during the screening.

#### A.4.1 Photoionization Detector (PID) Measurements

PID measurements were collected on soil samples to screen for volatile organic vapors such as gasoline and solvents. Typically, decaying organics can elevate PID measurements, and diesel and oil can rarely be detected with the PID. PID measurements were obtained by passing the instrument directly over the soil or by performing a headspace measurement.

#### **A.4.2 Visual Observations**

Visual observations were made of soil samples and cuttings and recorded on the boring log or in the field logbook.

#### **A.4.3 Odors**

Unusual odors were recorded when noted during drilling or sampling. Soil was not intentionally smelled for contamination and was not tasted for classification purposes.

#### **A.4.4 Field Screening Documentation**

For all screening methods, the following items were recorded:

- Type of measurement/observation
- Depth
- Time of measurement or observation
- Possible source
- What the odor smells like (petroleum, decaying organics, creosote, cedar, etc.)

### **A.5 ANALYTICAL METHODS**

Selected soil and groundwater samples were analyzed for one or more of the following: Method Northwest Total Petroleum Hydrocarbons as Diesel – Extended; Method Northwest Total Petroleum Hydrocarbons as Gasoline– Extended; Model Toxics Control Act Five metals (arsenic, cadmium, chromium, lead, and mercury) by U.S. Environmental Protection Agency (EPA) Method 6010B/7000A series; polychlorinated biphenyls by EPA Method 8082; volatile organic compounds by EPA Method SW 8260B; and Toxicity Characteristic Leaching Procedure for tetrachloroethene by EPA Method 1311/SW8260.

Analytical work was performed by OnSite in accordance with their in-house Quality Assurance/Quality Control Plan. Sample analyses were performed in compliance with EPA analytical methods and Washington State Department of Ecology guidelines. Samples were analyzed within specified holding times.

### **A.6 DECONTAMINATION METHODS**

The primary objective of the decontamination process is to prevent the accidental introduction of contaminants to non-contaminated areas or samples. This section describes the methods associated with decontamination of field equipment.

### **A.6.1 Probe Rig, Drill Rig, and Downhole Drill/Auger Tools**

All equipment used during probing and drilling activities was steam-cleaned prior to use and kept off the ground surface. Equipment decontaminated included rods, augers, casing, samplers, and cables. Downhole samplers used during drilling activities were also cleaned between each use. The probe rig and drill rig were decontaminated at the site.

### **A.6.2 Sampling Equipment**

All non-disposable groundwater and soil sampling equipment was cleaned prior to use in the field. Wherever possible, sampling equipment was dedicated to a single location to minimize potential cross-contamination. Dedicated tubing was used for each sampling location. All other non-dedicated sampling equipment, including all split-barrel samplers, spoons, and other stainless steel equipment used for field activities, was decontaminated as follows:

- Remove gross contamination and particulate matter.
- Wash thoroughly with Alconox™, or similar non-phosphate detergent plus tap water or designated decontamination water supply source.
- Rinse equipment thoroughly with distilled or deionized water.

## **A.7 INVESTIGATION-DERIVED WASTE (IDW)**

IDW is waste generated during sampling activities. IDW generated during these sampling activities included soil cuttings, development and purge water, and decontamination fluids, and was contained in 55-gallon drums. Drums were labeled with the exploration, date, and contents as shown in Appendix D. IDW will be disposed of by Emerald Services under subcontract to Shannon & Wilson, Inc. Drums containing IDW generated from borings located on the east side of the property will be disposed of as a listed Dangerous Waste, F002, under the Resource Conservation and Recovery Act (RCRA) Site Identification (ID) number WAH000039609. The site-specific RCRA site identification number was obtained by Sound Transit. Based on site history and analytical results, it appears that a dry cleaning operation occurred on the east side of the site. To comply with RCRA, all IDW contaminated with tetrachloroethene, associated with investigating the area, is required to be classified as spent solvents from a dry cleaning operation. Copies of the manifests are included in Appendix D (to be appended when disposal is complete).

IDW resulting from explorations on the west side of the site were disposed of as petroleum-contaminated soil and water. Disposal documentation for drums generated from explorations performed on the western part of the property is provided in Appendix D (to be appended when disposal is complete).

Miscellaneous IDW consisted of used personal protective equipment (PPE); disposable sampling equipment (spoons, tubing, etc.); and other wastes that originated from site activities. This IDW was placed in doubled, heavy-duty plastic bags. The waste PPE and disposable sampling were disposed of in a dumpster at the drilling subcontractor's facility.

Shannon & Wilson, Inc. (S&W), uses a soil classification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following page. Soil descriptions are based on visual-manual procedures (ASTM D 2488-93) unless otherwise noted.

### S&W CLASSIFICATION OF SOIL CONSTITUENTS

- MAJOR constituents compose more than 50 percent, by weight, of the soil. Major constituents are capitalized (i.e., SAND).
- Minor constituents compose 12 to 50 percent of the soil and precede the major constituents (i.e., silty SAND). Minor constituents preceded by "slightly" compose 5 to 12 percent of the soil (i.e., slightly silty SAND).
- Trace constituents compose 0 to 5 percent of the soil (i.e., slightly silty SAND, trace of gravel).

### MOISTURE CONTENT DEFINITIONS

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

### ABBREVIATIONS

ATD	At Time of Drilling
Elev.	Elevation
ft	feet
FeO	Iron Oxide
MgO	Magnesium Oxide
HSA	Hollow Stem Auger
ID	Inside Diameter
in	inches
lbs	pounds
Mon.	Monument cover
N	Blows for last two 6-inch increments
NA	Not applicable or not available
NP	Non plastic
OD	Outside diameter
OVA	Organic vapor analyzer
PID	Photo-ionization detector
ppm	parts per million
PVC	Polyvinyl Chloride
SS	Split spoon sampler
SPT	Standard penetration test
USC	Unified soil classification
WOH	Weight of hammer
WOR	Weight of drill rods
WLI	Water level indicator

### GRAIN SIZE DEFINITION











DESCRIPTION	SIEVE NUMBER AND/OR SIZE
FINES	< #200 (0.08 mm)
SAND* - Fine - Medium - Coarse	#200 to #40 (0.08 to 0.4 mm) #40 to #10 (0.4 to 2 mm) #10 to #4 (2 to 5 mm)
GRAVEL* - Fine - Coarse	#4 to 3/4 inch (5 to 19 mm) 3/4 to 3 inches (19 to 76 mm)
COBBLES	3 to 12 inches (76 to 305 mm)
BOULDERS	> 12 inches (305 mm)

\* Unless otherwise noted, sand and gravel, when present, range from fine to coarse in grain size.

### RELATIVE DENSITY / CONSISTENCY

COARSE-GRAINED SOILS		FINE-GRAINED SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
0 - 4	Very loose	Under 2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
Over 50	Very dense	15 - 30	Very stiff
		Over 30	Hard

### WELL AND OTHER SYMBOLS

	Bent. Cement Grout		Surface Cement Seal
	Bentonite Grout		Asphalt or Cap
	Bentonite Chips		Slough
	Silica Sand		Bedrock
	PVC Screen		
	Vibrating Wire		

Sound Transit  
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Seattle, Washington

## SOIL CLASSIFICATION AND LOG KEY

January 2012

21-1-16604-005

SHANNON & WILSON, INC.  
Geotechnical and Environmental Consultants

FIG. A-1  
Sheet 1 of 2

**UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)**  
(From USACE Tech Memo 3-357)

MAJOR DIVISIONS			GROUP/GRAPHIC SYMBOL	TYPICAL DESCRIPTION	
COARSE-GRAINED SOILS (more than 50% retained on No. 200 sieve)	Gravels (more than 50% of coarse fraction retained on No. 4 sieve)	Clean Gravels (less than 5% fines)	GW		Well-graded gravels, gravels, gravel/sand mixtures, little or no fines.
			GP		Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines (more than 12% fines)	GM		Silty gravels, gravel-sand-silt mixtures
			GC		Clayey gravels, gravel-sand-clay mixtures
	Sands (50% or more of coarse fraction passes the No. 4 sieve)	Clean Sands (less than 5% fines)	SW		Well-graded sands, gravelly sands, little or no fines
			SP		Poorly graded sand, gravelly sands, little or no fines
		Sands with Fines (more than 12% fines)	SM		Silty sands, sand-silt mixtures
			SC		Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more passes the No. 200 sieve)	Silt and Clays (liquid limit less than 50)	Inorganic	ML		Inorganic silts of low to medium plasticity, rock flour, sandy silts, gravelly silts, or clayey silts with slight plasticity
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	Silt and Clays (liquid limit 50 or more)	Organic	OL		Organic silts and organic silty clays of low plasticity
		Inorganic	MH		Inorganic silts, micaceous or diatomaceous fine sands or silty soils, elastic silt
			CH		Inorganic clays of medium to high plasticity, sandy fat clay, or gravelly fat clay
		Organic	OH		Organic clays of medium to high plasticity, organic silts
HIGHLY-ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor	PT		Peat, humus, swamp soils with high organic content (see ASTM D 4427)	

NOTE: No. 4 size = 5 mm; No. 200 size = 0.075 mm

NOTES

- Dual symbols (symbols separated by a hyphen, i.e., SP-SM, slightly silty fine SAND) are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart.
- Borderline symbols (symbols separated by a slash, i.e., CL/ML, silty CLAY/clayey SILT; GW/SW, sandy GRAVEL/gravelly SAND) indicate that the soil may fall into one of two possible basic groups.

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**SOIL CLASSIFICATION  
AND LOG KEY**

January 2012

21-1-16604-005

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**FIG. A-1**  
Sheet 2 of 2

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	9/22/11	Ground Elevation:	Approx. 183.0 feet
Total Depth (ft)	13.0	Typical Run Length	4 feet
Drilling Company:		Hole Diameter:	
Cascade Drilling		2 inches	




Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown, slightly silty, gravelly SAND; moist; SP-SM.	1.0					
		Brown, silty, gravelly SAND; moist; iron-oxide staining throughout; SM.			0			
5	R-2	Brown to gray, silty, gravelly, medium to coarse SAND; moist; SM.	5.0			None Observed During Drilling		5
					0			
10	R-3	Gray, silty SAND; dry; SM.	10.0				GP-1-11:10	10
					0			
		REFUSAL AT 13 FEET COMPLETED 9/22/2011	13.0					
15								15

Typ: CLP  
 Rev: DJR  
 Log: DJR

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                       |
|---|------------------------------------|---|-----------------------|
|  | 2" Plastic Tube with Soil Recovery |  | Estimated Water Level |
|  | 2" Plastic Tube - No Soil Recovery |   |                       |
- Run No.

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## LOG OF GEOPROBE GP-1

January 2012

21-1-16604-005

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**FIG. A-2**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/10/12

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 184.0 feet
Date Completed	9/22/11			Typical Run Length	4 feet
Total Depth (ft)	12.0	Drilling Company:	Cascade Drilling	Hole Diameter:	2 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)	
	R-1	ASPHALT	0.4						
		Brown, slightly gravelly, silty, fine to medium SAND; dry; SM.			0				
5	R-2				0	None Observed During Drilling	GP-2-11:9	5	
		Brown to gray, silty, fine to medium SAND, iron-oxide staining; dry; SM.	8.0		0				
		Gray, slightly gravelly, silty SAND; dry; SM.	9.0		0				
10	R-3	Gray, silty SAND; dry; SM.	10.0		0			10	
		REFUSAL AT 12 FEET COMPLETED 9/22/2011	12.0						

Typ. CLP  
 Rev. DJR  
 Log. DJR

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- 2" Plastic Tube with Soil Recovery
- 2" Plastic Tube - No Soil Recovery
- Estimated Water Level
- Run No.

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## LOG OF GEOPROBE GP-2

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
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**FIG. A-3**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12



# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	9/22/11	Ground Elevation:	Approx. 182.0 feet
Total Depth (ft)	14.0	Drilling Company:	Cascade Drilling
		Hole Diameter:	2 inches
		Typical Run Length	4 feet





Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown to brown, silty, gravelly, fine to medium SAND; dry; slight hydrocarbon odor; SM.						
		Brown to gray, silty SAND; dry; SM.	2.5		5			
5	R-2	Gray to brown, silty, fine to medium SAND; moist; slight hydrocarbon odor; SM.	5.0					5
		Gray, fine to medium SAND, hydrocarbon odor; moist; SP.	7.5		23.5			
		Gray to brown, silty, fine SAND, trace of gravel, hydrocarbon odor; SM.	8.0		114			
			10.0		10			
10	R-3	Gray, silty, gravelly, fine to medium SAND; moist to wet; hydrocarbon odor; SM.	10.0			340		10
		BOTTOM OF GEOPROBE COMPLETED 9/22/2011	14.0					15

Log: DJR  
 Rev: DJR  
 Typ: CLP

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                                    |   |                       |
|---|------------------------------------|---|------------------------------------|---|-----------------------|
|  | 2" Plastic Tube - No Soil Recovery |  | 2" Plastic Tube with Soil Recovery |  | Estimated Water Level |
|  |                                    | Run No.   |                                    |   |                       |

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## LOG OF GEOPROBE GP-3

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
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**FIG. A-4**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 182.0 feet
Date Completed	9/22/11			Typical Run Length	4 feet
Total Depth (ft)	10.0	Drilling Company:	Cascade Drilling	Hole Diameter:	2 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown, gravelly, fine to medium SAND; dry; SP.						
		Dark brown to brown, gravelly, silty, fine to medium SAND, some iron-oxide staining; moist; SM.	2.5		0			
5	R-2	Brown, silty SAND, trace of gravel, iron-oxide staining throughout; moist; SM.	5.0		0			5
10		REFUSAL AT 10 FEET COMPLETED 9/22/2011	10.0		0	None Observed During Drilling	GP-4-11:9.5	10





Log: DJR Rev: DJR Typ: CLP

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                                    |
|---|------------------------------------|---|------------------------------------|
|  | 2" Plastic Tube - No Soil Recovery |  | 2" Plastic Tube with Soil Recovery |
|  | Estimated Water Level              |  | Estimated Water Level              |
- Run No.

Sound Transit Former Key Bank Seattle, Washington	
<b>LOG OF GEOPROBE GP-4</b>	
January 2012	21-1-16604-005
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. A-5</b>

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	9/22/11	Ground Elevation:	Approx. 182.5 feet
Total Depth (ft)	13.0	Typical Run Length	4 feet
Drilling Company:	Cascade Drilling		Hole Diameter:
			2 inches




Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown to brown, silty, gravelly SAND to gravelly, silty SAND, iron-oxide staining; SM.			0			
5	R-2				0	None Observed During Drilling		5
		Brown to gray, silty SAND; moist; slight hydrocarbon odor; SM.	9.0		13.5			
10	R-3	Gray, silty, fine to medium SAND; moist; strong hydrocarbon odor; SM.	10.0					10
		BOTTOM OF GEOPROBE COMPLETED 9/22/2011	13.0		248		GP-5-11:13	15

Typ: CLP  
 Rev: DJR  
 Log: DJR

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                                    |
|---|------------------------------------|---|------------------------------------|
|  | 2" Plastic Tube - No Soil Recovery |  | 2" Plastic Tube with Soil Recovery |
|  | Estimated Water Level              |   |                                    |
- Run No.

Sound Transit  
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Seattle, Washington

## LOG OF GEOPROBE GP-5

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-6**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 182.5 feet
Date Completed	9/22/11			Typical Run Length	4 feet
Total Depth (ft)	14.0	Drilling Company:	Cascade Drilling	Hole Diameter:	2 inches




Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Brown, silty, fine to medium SAND, trace of gravel; moist; SM.			0			
5		Brown, clayey SAND, iron-oxide staining; moist; SC.	4.5		0			
	R-2	Brown to gray, clayey SAND, trace of gravel, medium dense sand lens at 7.5 feet; moist; SC.	5.0			None Observed During Drilling		
		Gray, silty, fine to medium SAND; moist; hard, clayey sand layer at 14 feet.	9.0		0			
10	R-3				0			
		REFUSAL AT 14 FEET COMPLETED 9/22/2011	14.0		0		GP-6-11:13	

Typ: CLP  
 Rev: DJR  
 Log: DJR

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                       |
|---|------------------------------------|---|-----------------------|
|  | 2" Plastic Tube with Soil Recovery |  | Estimated Water Level |
|  | 2" Plastic Tube - No Soil Recovery |   |                       |
- Run No.

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-6

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
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**FIG. A-7**

GEOPROBE 21-16604 GPJ 21-16604 GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	9/22/11	Ground Elevation:	Approx. 181.0 feet
Total Depth (ft)	14.0	Typical Run Length	4 feet
Drilling Company:		Hole Diameter:	
Cascade Drilling		2 inches	

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)	
	R-1	ASPHALT	0.4						
		Dark brown, slightly silty, gravelly, fine to medium SAND; moist; SP-SM.							
		Brown, silty, fine to medium SAND, trace of gravel and some cobbles; moist; SM.	2.5		00				
5	R-2					None Observed During Drilling		5	
		Gray, silty, fine to medium SAND, trace of cobbles; moist to wet at 14 feet; strong hydrocarbon odor; SM.	9.0		56				
10	R-3								10
15		REFUSAL AT 14 FEET COMPLETED 9/23/2011	14.0		396		GP-7-11:14	15	




Log: DJR Rev: DJR Typ: CLP

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                                    |
|---|------------------------------------|---|------------------------------------|
|  | 2" Plastic Tube - No Soil Recovery |  | 2" Plastic Tube with Soil Recovery |
|  | Estimated Water Level              |   |                                    |
- Run No.

Sound Transit  
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Seattle, Washington

## LOG OF GEOPROBE GP-7

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-8**

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	9/22/11	Ground Elevation:	Approx. 180.5 feet
Total Depth (ft)	14.0	Typical Run Length	4 feet
Drilling Company:		Hole Diameter:	
Cascade Drilling		2 inches	

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown, slightly silty, gravelly, fine to medium SAND; dry; SP-SM.						
		Brown to light gray, silty, fine to medium SAND, trace of gravel, some iron-oxide staining and mottling; SM.	2.5		0			
5	R-2				0	None Observed During Drilling		5
		Gray, silty, fine to medium SAND, trace of gravel; moist; strong hydrocarbon odor at 14 feet; SM.	8.5		1			
10	R-3							10
15		REFUSAL AT 14 FEET COMPLETED 9/22/2011	14.0		328		GP-8-11:14	15

Typ. CLP  
 Rev. DJR  
 Log. DJR  
 GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |         |                                    |  |                       |
|---------|------------------------------------|--|-----------------------|
|         | 2" Plastic Tube - No Soil Recovery |  |                       |
|         | 2" Plastic Tube with Soil Recovery |  | Estimated Water Level |
| Run No. |                                    |  |                       |

Sound Transit Former Key Bank Seattle, Washington	
<h2 style="margin: 0;">LOG OF GEOPROBE GP-8</h2>	
January 2012	21-1-16604-005
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. A-9</b>

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	9/22/11	Ground Elevation:	Approx. 180.5 feet
Total Depth (ft)	13.0	Typical Run Length	4 feet
Drilling Company:		Hole Diameter:	
Cascade Drilling		2 inches	

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown to brown, silty, gravelly, fine to medium SAND; dry; SM.			0			
		Brown, silty, gravelly, fine to medium SAND; dry; SM.	3.0					
5	R-2				0	None Observed During Drilling		5
		Gray, silty, fine to medium SAND; moist; slight hydrocarbon odor at 13 feet; SM.	9.5					10
10	R-3				0			10
		REFUSAL AT 13 FEET COMPLETED 9/22/2011	13.0		25		GP-9-11:13	15

Typ. CLP  
Rev. DJR  
Log. DJR

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |  |                                    |  |                       |
|--|------------------------------------|--|-----------------------|
|  | 2" Plastic Tube - No Soil Recovery |  | Estimated Water Level |
|  | 2" Plastic Tube with Soil Recovery |  |                       |

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-9

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-10**

GEOPROBE 21-1-16604.GPJ 21-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	9/22/11			Typical Run Length	4 feet
Total Depth (ft)	10.0	Drilling Company:	Cascade Drilling	Hole Diameter:	2 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	<b>ASPHALT</b> Dark brown to brown, silty, gravelly, fine to medium SAND; dry; SM.	0.4	[Symbol]	0	None Observed During Drilling	GP-10-11:10	
5	R-2	Brown, slightly silty to silty, fine to medium SAND, gray mottling; dry; SP-SM/SM.	5.0	[Symbol]	0			
10		REFUSAL AT 10 FEET COMPLETED 9/22/2011	10.0	[Symbol]	0			

Typ. CLP  
 Rev. DJR  
 Log. DJR

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

- |                                    |                                    |                       |
|------------------------------------|------------------------------------|-----------------------|
| 2" Plastic Tube - No Soil Recovery | 2" Plastic Tube with Soil Recovery | Estimated Water Level |
|------------------------------------|------------------------------------|-----------------------|
- Run No. 3

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-10

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-11**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12



# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	9/22/11			Typical Run Length	4 feet
Total Depth (ft)	10.0	Drilling Company:	Cascade Drilling	Hole Diameter:	2 inches




Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Dark brown to brown, silty, gravelly, fine to medium SAND; dry; SM.						
		Brown, silty, gravelly SAND; SM.	2.5		0			
5	R-2	Brown, silty, fine SAND; dry; SM.	5.0					5
		Gray, silty SAND; dry; SM.	6.5					
10		REFUSAL AT 10 FEET COMPLETED 9/22/2011	10.0		0	None Observed During Drilling	GP-11-11:10	10

Log: DJR  
 Rev: DJR  
 Typ: CLP

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |   |                                    |   |                       |
|---|------------------------------------|---|-----------------------|
|  | 2" Plastic Tube with Soil Recovery |  | Estimated Water Level |
|  | 2" Plastic Tube - No Soil Recovery |   |                       |
- Run No.

Sound Transit  
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Seattle, Washington

## LOG OF GEOPROBE GP-11

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-12**

GEOPROBE 21-16604.GPJ\_21-16604.GPJ.1/9/12

# LOG OF GEOPROBE

Date Started	9/22/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 177.5 feet
Date Completed	9/22/11			Typical Run Length	4 feet
Total Depth (ft)	10.0	Drilling Company:	Cascade Drilling	Hole Diameter:	2 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		<i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>						
		ASPHALT	0.4					
		Dark brown, silty SAND, trace of gravel; dry; SM.	1.0					
	R-1	Brown, slightly silty, fine to medium SAND, trace of gravel; dry; SP-SM.						
5	R-2	Brown, silty, fine to medium SAND, trace of gravel; dry; SM.	4.0			None Observed During Drilling		5
	R-3	Brown, silty SAND; dry; SM.	8.0					
10	1	REFUSAL AT 10 FEET COMPLETED 9/22/2011	10.0				GP-12:11:10	10

Log: DJR Rev: DJR Typ: CLP

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- 2" Plastic Tube - No Soil Recovery
  - 2" Plastic Tube with Soil Recovery
  - Estimated Water Level
- Run No.

Sound Transit Former Key Bank Seattle, Washington	
<b>LOG OF GEOPROBE GP-12</b>	
January 2012	21-1-16604-005
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. A-13</b>

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	16.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	<b>ASPHALT</b> Brown, gravelly, fine sandy SILT to silty, fine SAND; moist from 8 to 14 feet; wood debris in the upper 4 feet; ML/SM.	0.4					
5	R-2				0	None Observed During Drilling	GP-13:4.5	5
10	R-3	- Iron-oxide staining from 10 to 14 feet.			0		GP-13:10.0	10
15	R-4		14.0		0			15
		Hard, gray, clayey SILT/silty CLAY; dry; thin, fine sand stringers; (Till) ML/CL.	16.0					
		<b>BOTTOM OF GEOPROBE                      COMPLETED 10/14/2011</b>	16.0					

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

- |   |                                    |   |                       |
|---|------------------------------------|---|-----------------------|
| 3 | 2" Plastic Tube - No Soil Recovery |   |                       |
|   | 2" Plastic Tube with Soil Recovery | ▽ | Estimated Water Level |
|   | Run No.                            |   |                       |

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-13

January 2012

21-1-16604-005

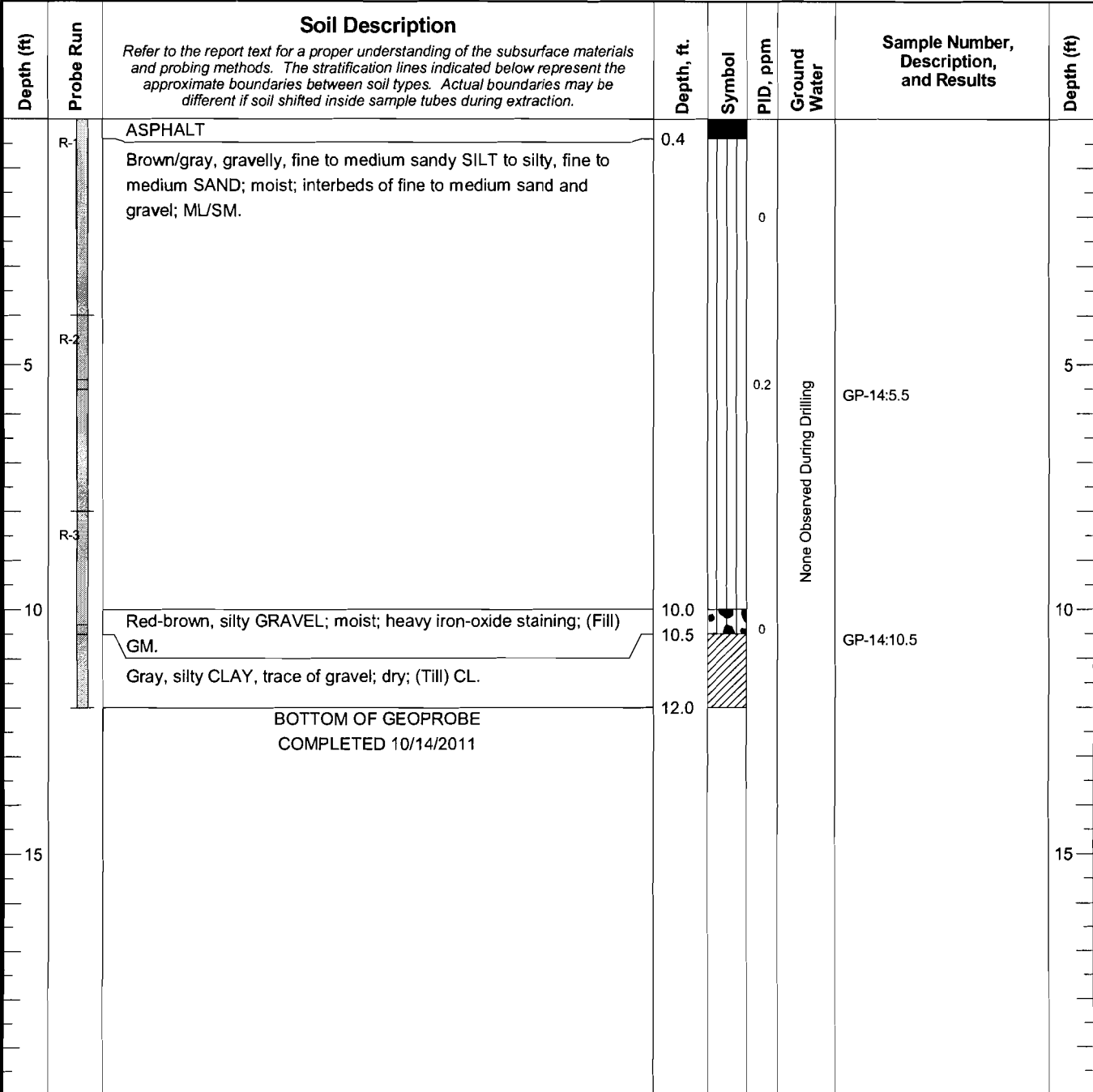
**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-14**

GEOPROBE 21-16604 GP-1 21-16604 GP-1 1/9/12

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	12.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches



Log: EVP  
 Rev: EVP  
 Typ: CLP

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

- |  |                                    |  |                                    |
|--|------------------------------------|--|------------------------------------|
|  | 2" Plastic Tube - No Soil Recovery |  | 2" Plastic Tube with Soil Recovery |
|  | Estimated Water Level              |  |                                    |
- Run No.

Sound Transit  
 Former Key Bank  
 Seattle, Washington

## LOG OF GEOPROBE GP-14

January 2012
21-1-16604-005

**SHANNON & WILSON, INC.**  
 Geotechnical and Environmental Consultants

**FIG. A-15**

GEOPROBE 21-1-16604.GPJ 21-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	12.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	<b>ASPHALT</b> Brown, gravelly, fine to medium, sandy SILT to silty, fine to medium SAND; dry; layer of gravel and red brick fragments at 1.5 feet; (Fill) ML/SM.	0.4		0			
5	R-2	Gray, silty CLAY to clayey SILT; dry; thin, fine sand stringers; (Till) CL/ML.	4.5		0	None Observed During Drilling	GP-15:5.0	5
10	R-3		12.0		0.2		GP-15:12.0	10
		BOTTOM OF GEOPROBE COMPLETED 10/14/2011						15

Log: EVP  
 Rev: EVP  
 Typ: CLP  
 GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- |                                    |                                    |                       |
|------------------------------------|------------------------------------|-----------------------|
| 2" Plastic Tube - No Soil Recovery | 2" Plastic Tube with Soil Recovery | Estimated Water Level |
| Run No.                            |                                    |                       |

Sound Transit  
Former Key Bank  
Seattle, Washington

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**LOG OF GEOPROBE GP-15**

January 2012 21-1-16604-005

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**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-16**

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	10/14/11	Ground Elevation:	Approx. 178.0 feet
Total Depth (ft)	12.0	Typical Run Length	4 feet
Drilling Company:		ESN Northwest	
		Hole Diameter:	1.25 inches




Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	<p><b>ASPHALT</b></p> <p>Mottled brown and gray, gravelly, fine sandy SILT and silty, fine to medium SAND; moist; iron-oxide staining; ML/SM.</p>	0.4		0			
5	R-2	<p>Light gray, silty, fine sandy GRAVEL; dry; GM.</p> <p>Mottled brown and gray, gravelly, fine sandy SILT; moist at 6 to 8 feet; ML.</p> <p>- Strong hydrocarbon odor from 7.5 to 8 feet.</p>	5.0		0.2	None Observed During Drilling	GP-16:8.0	5
	R-3	<p>Gray, trace to slightly gravelly, silty CLAY; dry; thin sand stringers at 10 feet; CL.</p>	9.3		0.2			
12.0		<p><b>BOTTOM OF GEOPROBE COMPLETED 10/14/2011</b></p>	12.0		0.2		GP-16:11.5	12.0

Typ: CLP  
 Rev: EVP  
 Log: EVP  
 GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/19/12

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

- |   |                                    |   |                       |
|---|------------------------------------|---|-----------------------|
|  | 2" Plastic Tube with Soil Recovery |  | Estimated Water Level |
|  | 2" Plastic Tube - No Soil Recovery |   |                       |
- Run No.

Sound Transit Former Key Bank Seattle, Washington	
<h2 style="margin: 0;">LOG OF GEOPROBE GP-16</h2>	
January 2012	21-1-16604-005
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. A-17</b>

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	14.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Brown/gray, gravelly, fine sandy SILT to silty, fine SAND; moist; (Fill) ML/SM.			0.2			
5	R-2	- Iron-oxide staining from 4 to 5 feet.			0	None Observed During Drilling	GP-17:6:0	5
		- Brick fragments at 8.0 feet.			0			10
10	R-3	- Iron-oxide staining from 10.0 to 11.0 feet.						
		Gray, gravelly, fine to medium sandy SILT; moist; (Fill) ML.	11.0					
	R-4	Red-brown, gravelly, fine to medium, sandy, silty CLAY; moist; (Fill) CL.	11.5					
		Gray, gravelly, silty, fine to medium SAND; wet; (Till) SM.	13.0					
15		BOTTOM OF GEOPROBE COMPLETED 10/14/2011	14.0		0.3		GP-17:14:0	15

Typ. CLP  
Rev. EVP  
Log. EVP

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- 2" Plastic Tube - No Soil Recovery
  - 2" Plastic Tube with Soil Recovery
  - Estimated Water Level
- Run No.

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-17

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-18**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	11.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Brown/dark brown, silty, fine to medium GRAVEL, gravelly, silty, fine to medium SAND and gravelly, fine to medium, sandy SILT; dry; (Fill) GM/SM/ML.			0.1			
5	R-2	Gray/brown, gravelly, fine to medium sandy SILT; moist at 5 to 6 feet; thin, fine sand stringers; (Fill) ML.	4.0					5
					0.3			
	R-3	Gray/brown gravelly, silty, fine to medium SAND; wet at 8 to 9 feet, moist throughout; (Till) SM.	8.0					
10								10
					0.2			
		BOTTOM OF GEOPROBE COMPLETED 10/14/2011	11.0			None Observed During Drilling	GP-18:11.0	

Log: EYP Rev. EVP Typ: CLP

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- 2" Plastic Tube with Soil Recovery
  - 2" Plastic Tube - No Soil Recovery
  - Estimated Water Level
- Run No.

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-18

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-19**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/19/12



# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 177.5 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	11.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	<b>ASPHALT</b>	0.4					
		Brown/gray, gravelly, fine to medium, sandy SILT; wet at 3.0 and 10.0 feet; iron-oxide staining throughout; (Till at 8.0 feet) ML.			0.2			
5	R-2				0	None Observed During Drilling		5
10	R-3							10
		BOTTOM OF GEOPROBE COMPLETED 10/14/2011	11.0		0.1		GP-19:11.0	

Log: EYP Rev: EYP Typ: CLP

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

- 2" Plastic Tube - No Soil Recovery
  - 2" Plastic Tube with Soil Recovery
  - Estimated Water Level
- Run No.

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-19

January 2012

21-1-16604-005

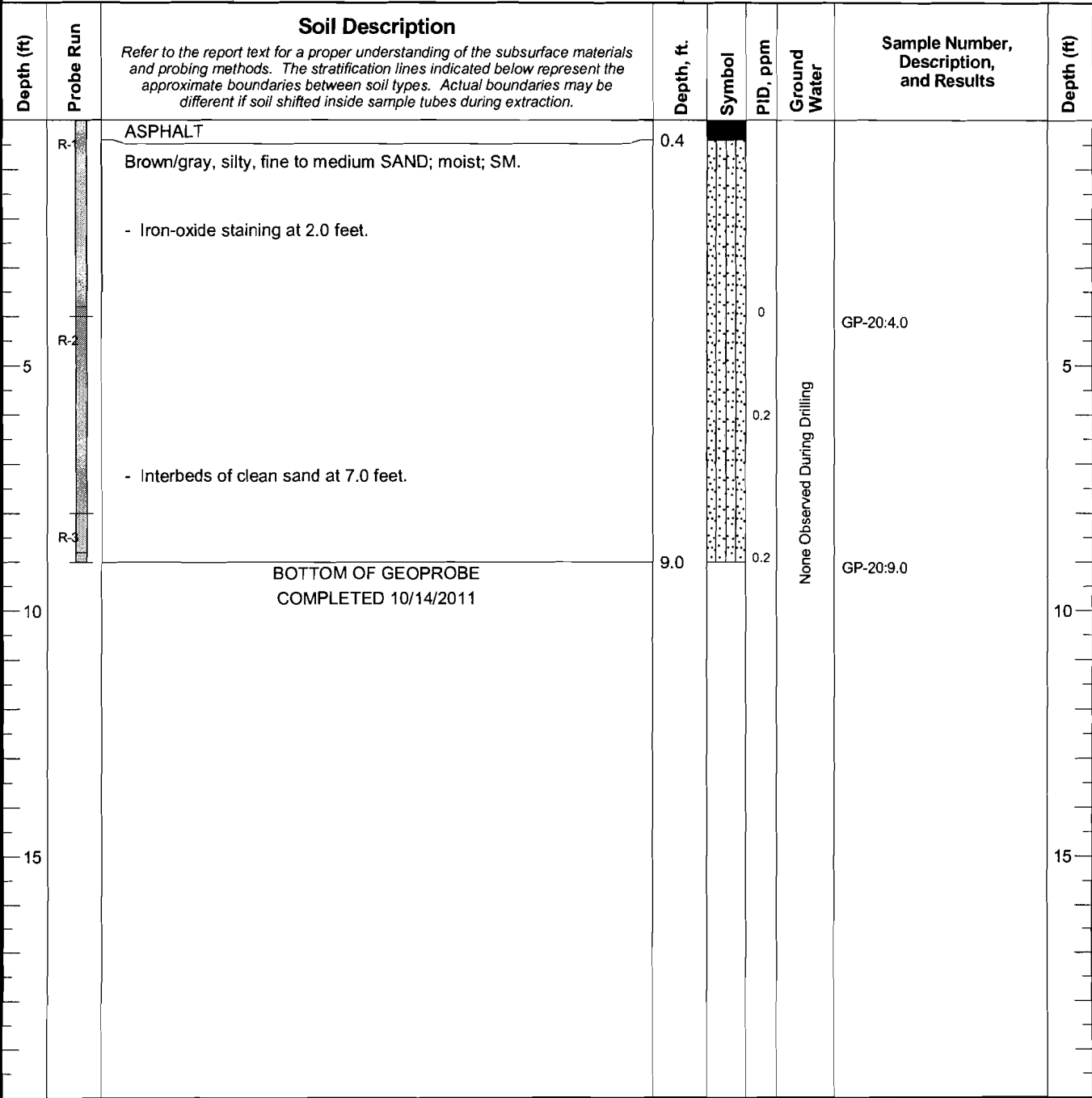
**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-20**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	9.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

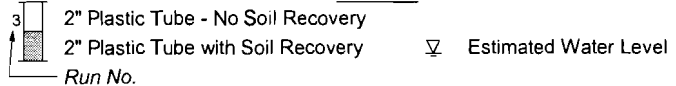


Typ. CLP  
 Rev. EVP  
 Log: EVP

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND



Sound Transit  
Former Key Bank  
Seattle, Washington

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**LOG OF GEOPROBE GP-20**

January 2012 21-1-16604-005

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**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-21**

GEOPROBE 21-1-16604.GPJ 21-1-16604.GPJ.1/9/12

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington	Ground Elevation:	Approx. 178.0 feet
Date Completed	10/14/11			Typical Run Length	4 feet
Total Depth (ft)	13.0	Drilling Company:	ESN Northwest	Hole Diameter:	1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4		0			
		Brown, silty, sandy GRAVEL; dry; brick fragments at 1.3 feet; (Fill) GM.						
5	R-2	Brown/gray, gravelly, fine to medium, sandy SILT and silty, fine to medium SAND; ML/SM.	4.0		0.2		GP-21:6.0	5
		- Iron-oxide staining from 8.0 to 12.0 feet.				None Observed During Drilling		
		- Dry from 9 to 9.5 feet.			0			
		- Moist from 9.5 to 10. feet.						
10	R-3							
		- Wet from 10.0 to 12.0 feet.						
	R-4	Gray, silty CLAY to clayey SILT; dry; fine to medium sand stringers; (Till) CL/ML.	12.0		0		GP-21:12.0	
		BOTTOM OF GEOPROBE COMPLETED 10/14/2011	13.0					

Typ: CLP  
Rev: EVP  
Log: EVP

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- 2" Plastic Tube with Soil Recovery
  - 2" Plastic Tube - No Soil Recovery
  - Estimated Water Level
- Run No.

Sound Transit  
Former Key Bank  
Seattle, Washington

## LOG OF GEOPROBE GP-21

January 2012

21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-22**

GEOPROBE 21-1-16604.GPJ 21-1-16604.GPJ 1/9/12

# LOG OF GEOPROBE

Date Started	10/14/11	Location	1000 NE 45th Street, Seattle, Washington
Date Completed	10/14/11	Ground Elevation:	Approx. 177.5 feet
Total Depth (ft)	13.0	Typical Run Length	4 feet
Drilling Company:	ESN Northwest		Hole Diameter:
			1.25 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	R-1	ASPHALT	0.4					
		Brown/gray, gravelly, silty, fine to medium SAND; SM.						
5	R-2	- Moist from 5.5 to 6.0 feet.					GP-22:5.5	5
			7.0			None Observed During Drilling		
	R-3	Brown, slightly gravelly, fine to medium sandy, clayey SILT and silty CLAY; dry; thin, fine sand stringers throughout; (Till) ML/CL.						
10								10
		BOTTOM OF GEOPROBE COMPLETED 10/14/2011	13.0				GP-22:13.0	

Typ: CLP  
 Rev: EVP  
 Log: EVP

### NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

### LEGEND

- 2" Plastic Tube - No Soil Recovery
- 2" Plastic Tube with Soil Recovery
- Estimated Water Level
- Run No.

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 Seattle, Washington

## LOG OF GEOPROBE GP-22

January 2012

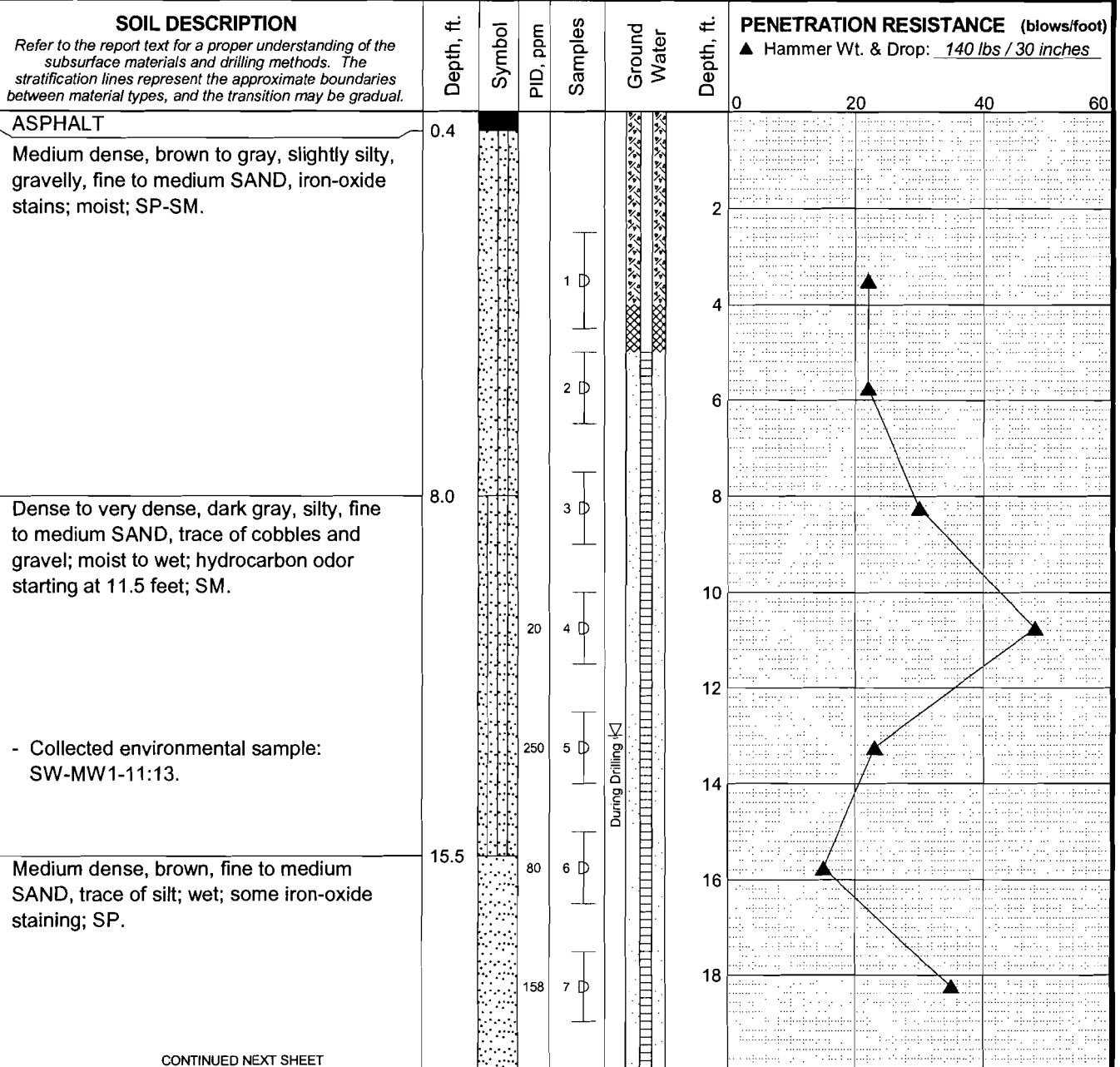
21-1-16604-005

**SHANNON & WILSON, INC.**  
 Geotechnical and Environmental Consultants

**FIG. A-23**

GEOPROBE 21-16604.GPJ 21-16604.GPJ 1/19/12

Total Depth: 37 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 180.7 ft. Easting: \_\_\_\_\_ Drilling Company: Cascade Drilling Rod Diam.: 3 1/2 I.D.  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: \_\_\_\_\_ Hammer Type: \_\_\_\_\_  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



CONTINUED NEXT SHEET

- LEGEND**
- \* Sample Not Recovered
  - E Environmental Sample Obtained
  - ⊕ 3.25" O.D. Split Spoon Sample
  - Piezometer Screen and Sand Filter
  - ▨ Bentonite-Cement Grout
  - ▩ Bentonite Chips/Pellets
  - ▧ Bentonite Grout
  - ▽ Ground Water Level ATD
  - ◇ % Fines (<0.075mm)
  - % Water Content

**NOTES**

1. Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
2. Groundwater level, if indicated above, is for the date specified and may vary.
3. USCS designation is based on visual-manual classification and selected lab testing.

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**LOG OF BORING SW-MW-1**

January 2012

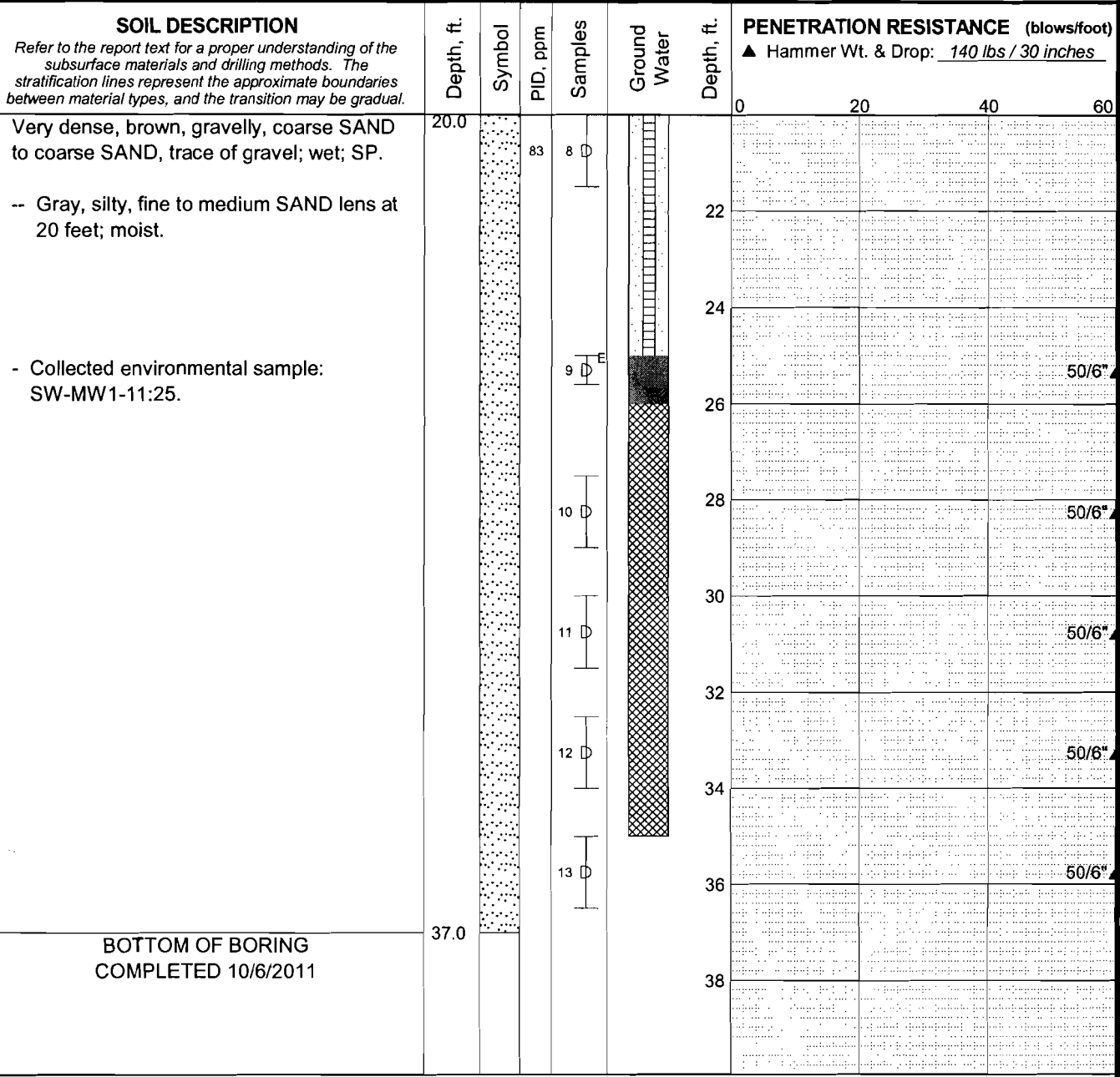
21-1-16604-005

**SHANNON & WILSON, INC.**  
 Geotechnical and Environmental Consultants

**FIG. A-24**  
 Sheet 1 of 2

MASTER LOG E 21-16604.GPJ SHAN WIL.GDT 1/10/12 Log: DJR Rev: DJR Typ: CLP

Total Depth: 37 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 180.7 ft. Easting: \_\_\_\_\_ Drilling Company: Cascade Drilling Rod Diam.: 3"/2.5 I.D.  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: \_\_\_\_\_ Hammer Type: \_\_\_\_\_  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



Log: D.J.R. Rev. D.J.R. Typ. CLP  
 MASTER LOG E 21-16604.GPJ SHAN\_WIL\_GDT 1/10/12

- LEGEND**
- \* Sample Not Recovered
  - E Environmental Sample Obtained
  - ⊕ 3.25" O.D. Split Spoon Sample
  - ▽ Ground Water Level ATD
  - [Symbol: Grid] Piezometer Screen and Sand Filter
  - [Symbol: Diagonal lines] Bentonite-Cement Grout
  - [Symbol: Cross-hatch] Bentonite Chips/Pellets
  - [Symbol: Horizontal lines] Bentonite Grout
  - ◇ % Fines (<0.075mm)
  - % Water Content

- NOTES**
- Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
  - Groundwater level, if indicated above, is for the date specified and may vary.
  - USCS designation is based on visual-manual classification and selected lab testing.

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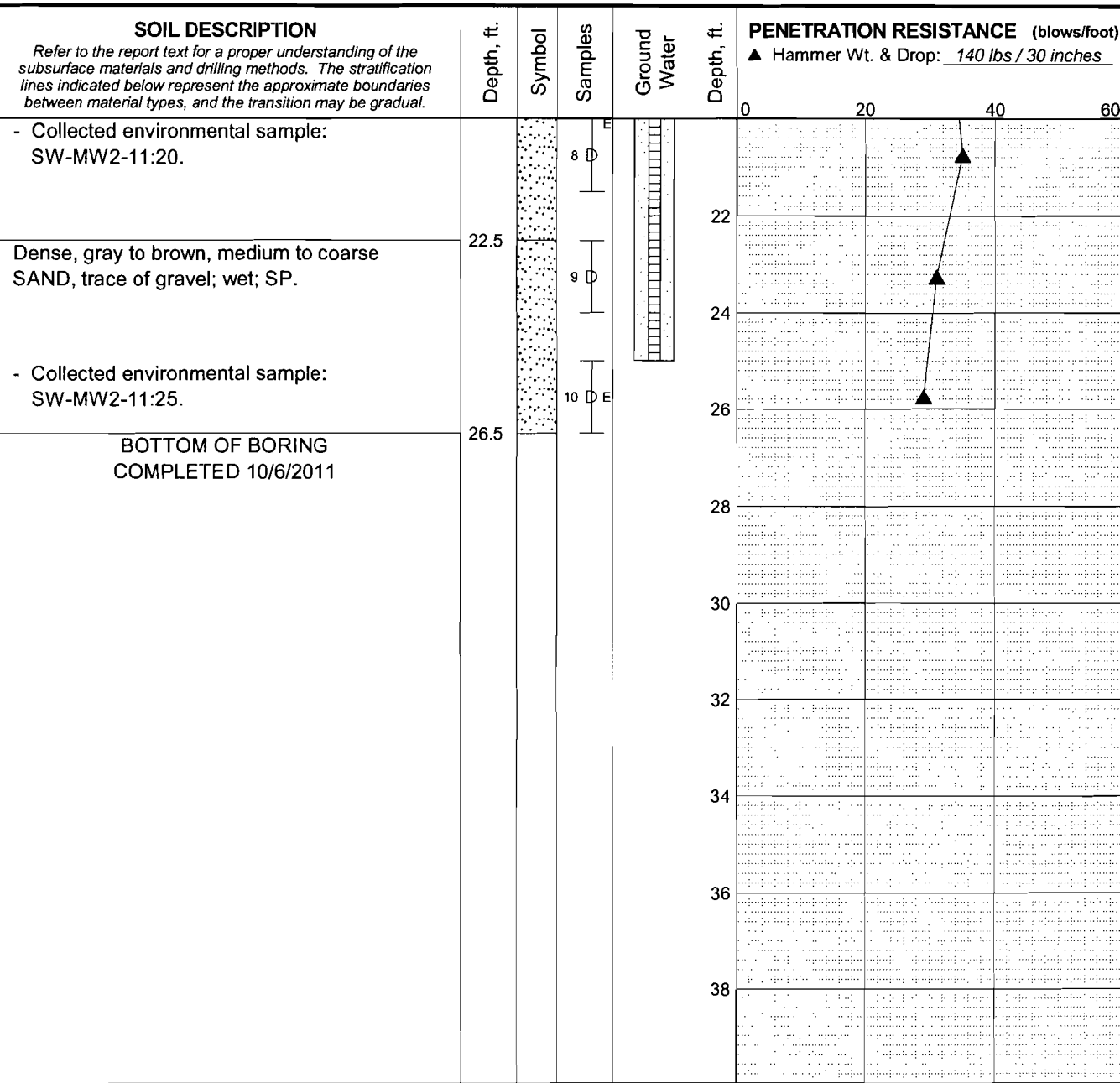
LOG OF BORING SW-MW-1

January 2012
21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants
**FIG. A-24**  
Sheet 2 of 2



Total Depth: 26.5 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 178.6 ft. Easting: \_\_\_\_\_ Drilling Company: Cascade Drilling Rod Diam.: 3 7/8"  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: \_\_\_\_\_ Hammer Type: \_\_\_\_\_  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



Log: DJR Rev: DJR Typ: CLP  
MASTER LOG E. 21-16604.GPJ SHAN WIL GOT 1/10/12

- LEGEND**
- \* Sample Not Recovered
  - E Environmental Sample Obtained
  - ⊕ 3.25" O.D. Split Spoon Sample
  - [Symbol] Piezometer Screen and Sand Filter
  - [Symbol] Bentonite-Cement Grout
  - [Symbol] Bentonite Chips/Pellets
  - [Symbol] Bentonite Grout
  - ∇ Ground Water Level ATD
  - ◇ % Fines (<0.075mm)
  - % Water Content

- NOTES**
1. Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
  2. Groundwater level, if indicated above, is for the date specified and may vary.
  3. USCS designation is based on visual-manual classification and selected lab testing.

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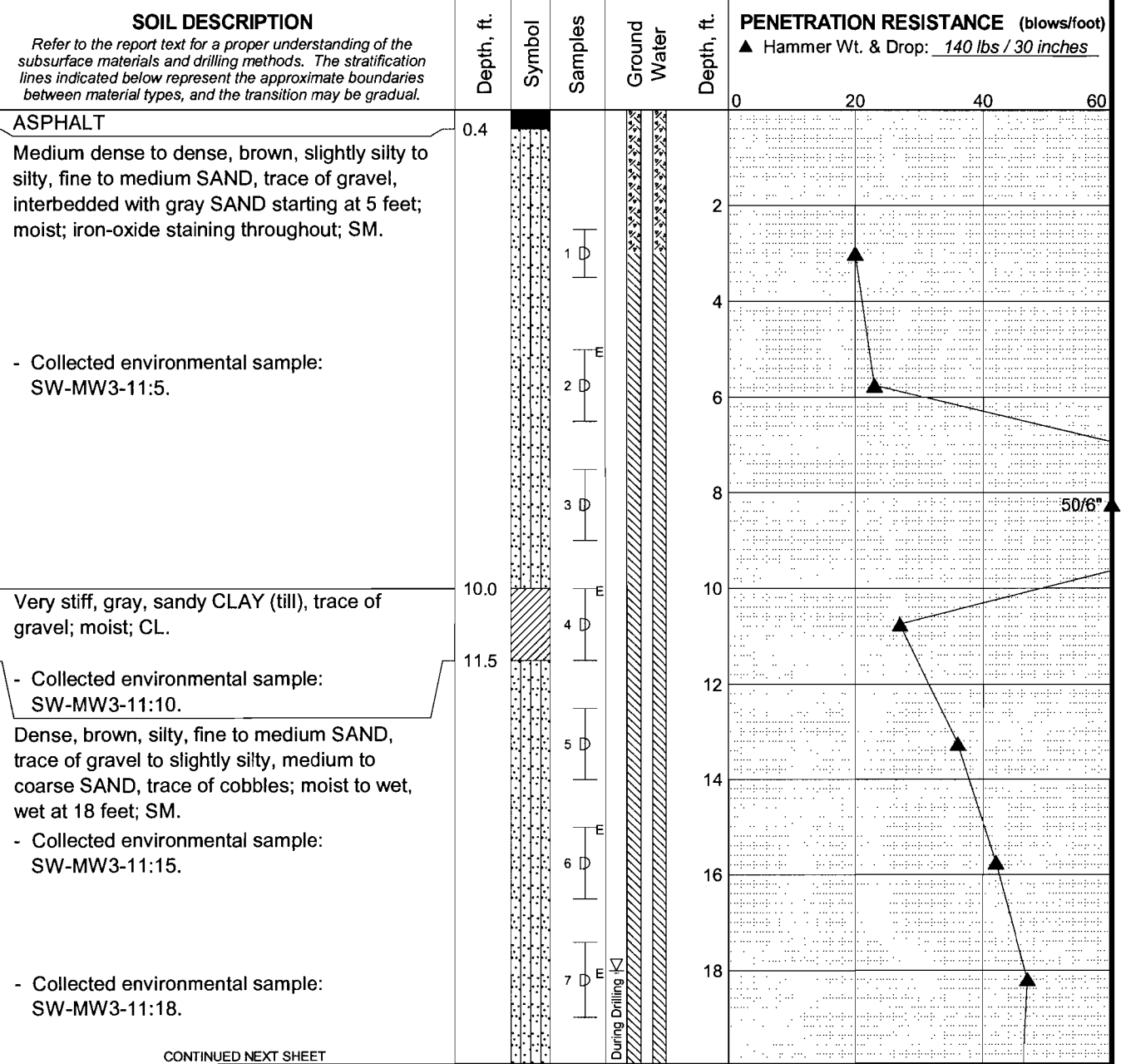
**LOG OF BORING SW-MW-2**

January 2012 21-1-16604-005

<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. A-25</b> Sheet 2 of 2
---	----------------------------------



Total Depth: 35.5 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 177.1 ft. Easting: \_\_\_\_\_ Drilling Company: Cascade Drilling Rod Diam.: 3"/2.5 I.D.  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: \_\_\_\_\_ Hammer Type: \_\_\_\_\_  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



CONTINUED NEXT SHEET

- LEGEND**
- \* Sample Not Recovered
  - E Environmental Sample Obtained
  - ⊕ 3.25" O.D. Split Spoon Sample
  - ▨ Piezometer Screen and Sand Filter
  - ▩ Bentonite-Cement Grout
  - ▧ Bentonite Chips/Pellets
  - ▦ Bentonite Grout
  - ∇ Ground Water Level ATD
  - ◇ % Fines (<0.075mm)
  - % Water Content

**NOTES**

- Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
- Groundwater level, if indicated above, is for the date specified and may vary.
- USCS designation is based on visual-manual classification and selected lab testing.

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**LOG OF BORING SW-MW-3**

January 2012

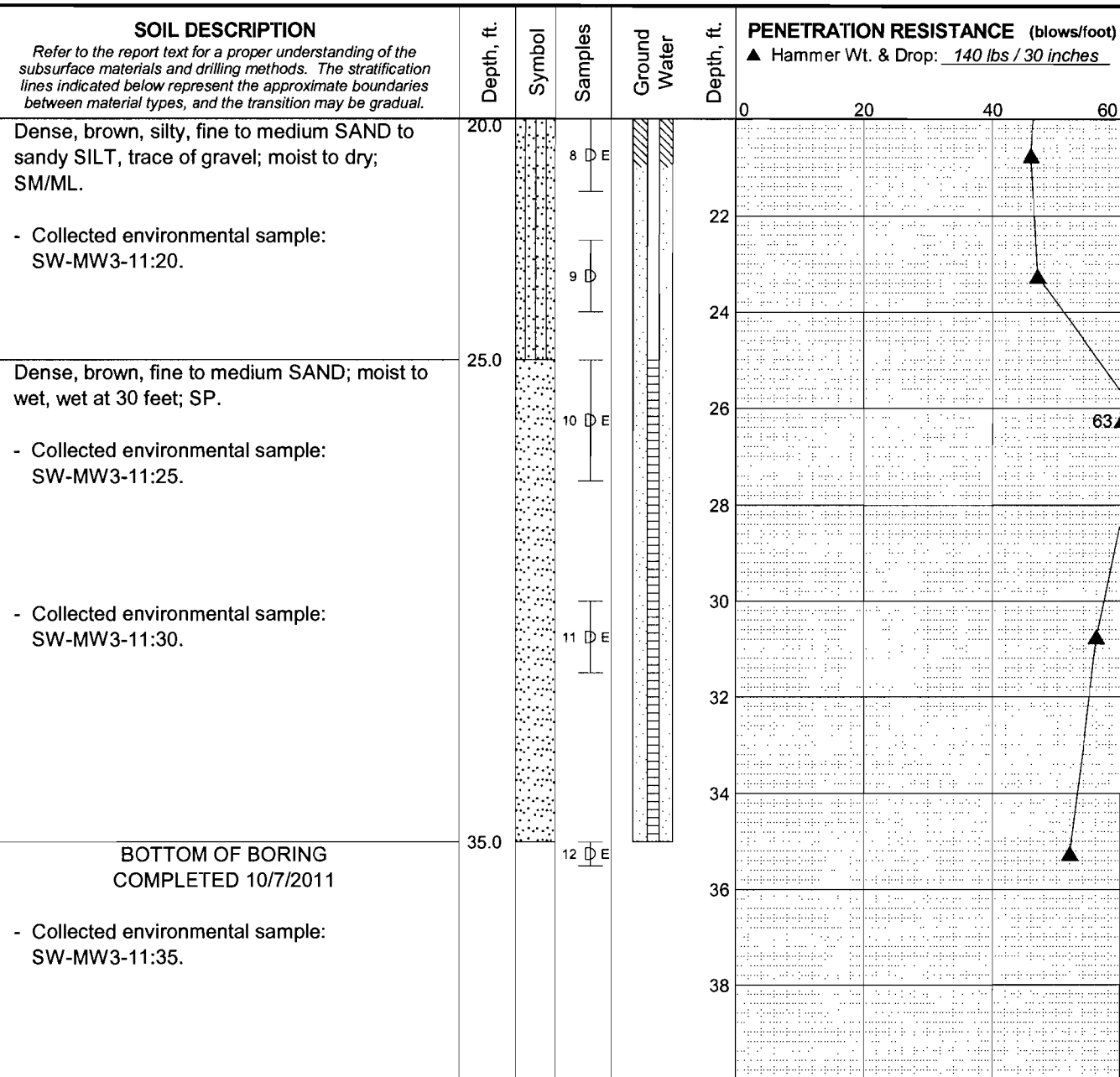
21-1-16604-005

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-26**  
Sheet 1 of 2

MASTER LOG E 21-16604.GPJ SHAN WIL.GDT 1/10/12 Log: DJR Rev: DJR Typ: CLP

Total Depth: 35.5 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 177.1 ft. Easting: \_\_\_\_\_ Drilling Company: Cascade Drilling Rod Diam.: 3"2.5 I.D.  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: \_\_\_\_\_ Hammer Type: \_\_\_\_\_  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



Log: DJR Rev: DJR Typ: CLP MASTER LOG E 21-16604.GPJ SHAN WIL GDT 1/10/12

**LEGEND**

* Sample Not Recovered	[Symbol]	Piezometer Screen and Sand Filter	◇ % Fines (<0.075mm)
E Environmental Sample Obtained	[Symbol]	Bentonite-Cement Grout	● % Water Content
⊕ 3.25" O.D. Split Spoon Sample	[Symbol]	Bentonite Chips/Pellets	
	[Symbol]	Bentonite Grout	
	▽	Ground Water Level ATD	

**NOTES**

1. Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
2. Groundwater level, if indicated above, is for the date specified and may vary.
3. USCS designation is based on visual-manual classification and selected lab testing.

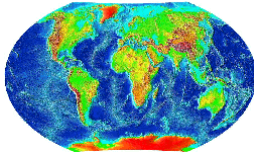
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Former Key Bank  
Seattle, Washington

**LOG OF BORING SW-MW-3**

January 2012 21-1-16604-005

<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. A-26</b> Sheet 2 of 2
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**APPENDIX B**  
**GEOPHYSICAL SUBCONTRACTOR UNDERGROUND STORAGE TANK**  
**LOCATE REPORT**



**Global Geophysics**  
16651 White Mountain Road SE  
Monroe, WA 98272  
Tel: 425-890-4321  
Fax: 360-805-0259

---

September 20, 2011

Our ref: 101-0712.000

Shannon & Wilson, Inc.  
400 N. 34<sup>th</sup> Street, Suite 100  
Seattle, WA 98103-8636, USA

Attention: Ms. Dawn Wulf

**RE: REPORT FOR UST LOCATE AT THE NE CORNER OF NE 45TH STREET AND ROOSEVELT WAY, SEATTLE, WASHINGTON**

This letter report presents the results of the geophysical survey performed by Global Geophysics on September 16<sup>th</sup>, 2011 at the NE corner of NE 45<sup>th</sup> Street and Roosevelt Way, Seattle, WA. The objective of the geophysical test was to attempt to locate potential underground storage tanks.

**METHODOLOGY, INSTRUMENTATION AND FIELD PROCEDURES**

Electromagnetics was used as the primary method. Ground penetrating radar was used on the drive-through concrete pads.

**Time Domain Electromagnetic (TDEM)**

The time-domain electromagnetic system is capable of detecting buried metal objects. It transmits a pulsed electromagnetic field into the ground, which induces eddy currents in buried metallic objects. These eddy currents generate secondary electromagnetic fields that are detected by the system. The time duration or decay rate, of the secondary EM field is related to the electrical conductivity characteristics of the buried object.

A four-channel (gate) high sensitivity metal detector, Geonics EM61 Mk2A, was used to collect the data along the same traverses as the GPR. The low channel number (1) represents anomalies produced by shallow objects and the high channel number (4) represents anomalies produced by deeper objects. The data was stored digitally and downloaded after the survey for analysis and mapping

**Ground Penetrating Radar**

The GPR method uses electromagnetic pulses, emitted at regular intervals by an antenna to map subsurface features. The electromagnetic pulses are reflected where changes in electrical properties of materials occur such as changes in lithology or where

underground utilities are present. The reflected electromagnetic energy is received by an antenna, converted into an electrical signal, and recorded on the GPR unit. The data is recorded and viewed in real time on a graphical display that depicts a continuous profile or cross-section image of the subsurface directly beneath the path of the antenna.

The depth of penetration of the GPR signal varies according to antenna frequency and the conductivity of the subsurface material. The depth of subsurface penetration with GPR decreases with an increase in the frequency of the antenna and an increase in soil conductivity. Low frequency antennas (50 to 500 MHz) provide the best compromise between obtaining good subsurface penetration and resolution.

The data at this site were collected using Geophysical Survey Systems, Inc. (GSSI) SIR 2000 GPR system with antennas having center frequencies of 200 and 400 MHz. The data were digitally recorded for post processing.

## **RESULTS**

### **EM61**

The EM61 data (all four gates) are presented in Figure 1. Besides the surface metal objects, there are some buried metal objects are identified:

- Linear EM anomalies may be indicative of buried steel pipes;
- Large EM anomalies (A1-A4) may suggest large single metal objects or a cluster of smaller metal objects;
- Smaller EM anomalies (B1-B7) are interpreted single small metal objects.

### **Ground Penetration Radar**

The drive-through concrete pad areas were scanned with both 200 MHz and 400 MHz antennas. The GPR profiles collected with 200 MHz antenna are presented in Figure 2, while The GPR profiles collected with 400 MHz antenna are presented in Figure 3. The linear GPR anomaly is probably buried utilities. However, further ground truthing is recommended to verify the nature of the GPR anomalies.

## **LIMITATIONS**

Global Geophysics's services are conducted in a manner consistent with the level of care and skill ordinarily exercised by other members of the geophysical community currently practicing under similar conditions subject to the time limits and financial and physical constraints applicable to the services. EM and ground penetrating radar (GPR) are remote sensing geophysical methods that may not detect all subsurface objects. Furthermore, it is possible that geophysical anomalies that are interpreted to be USTs may upon intrusive sampling prove to be misinterpreted.

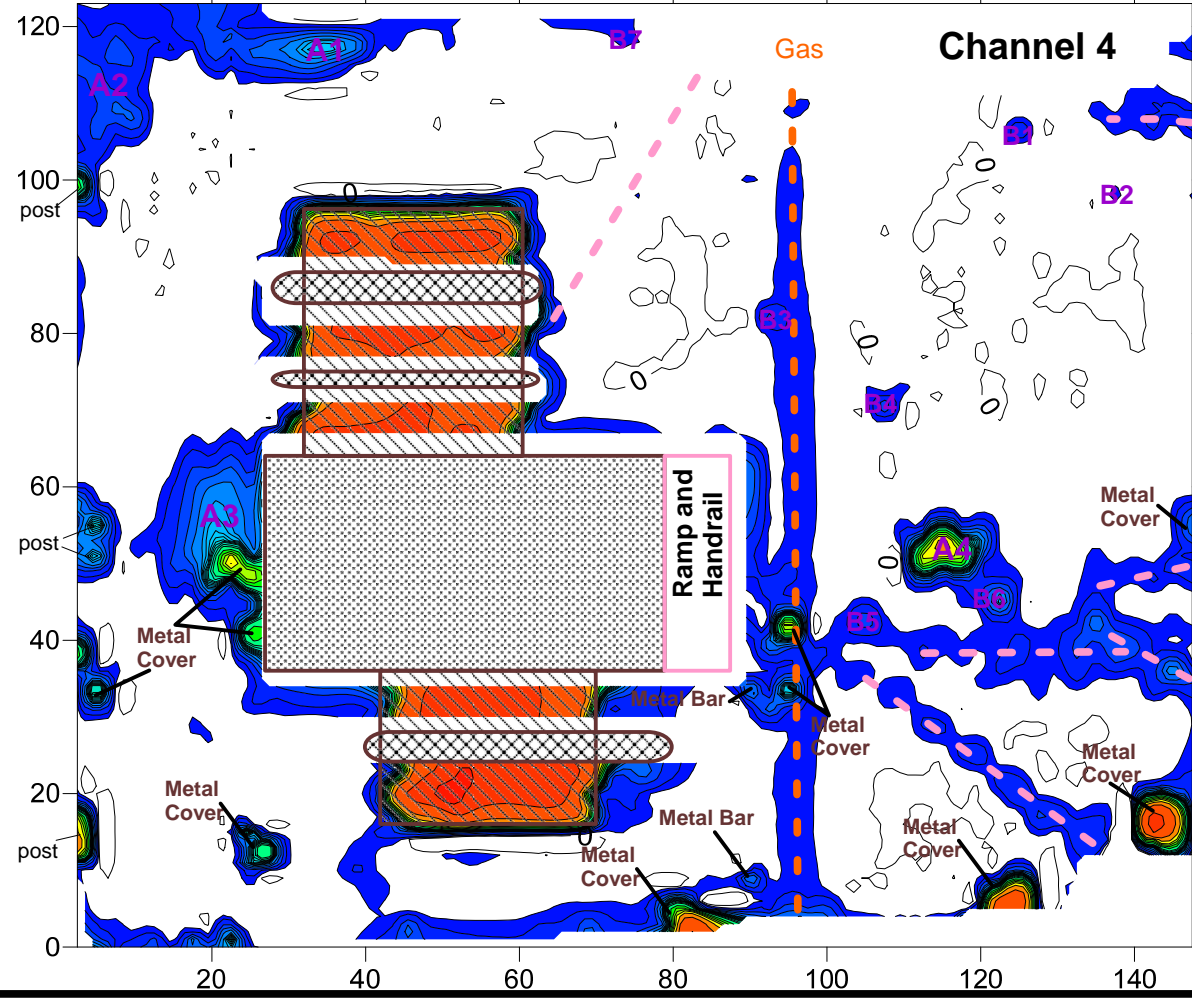
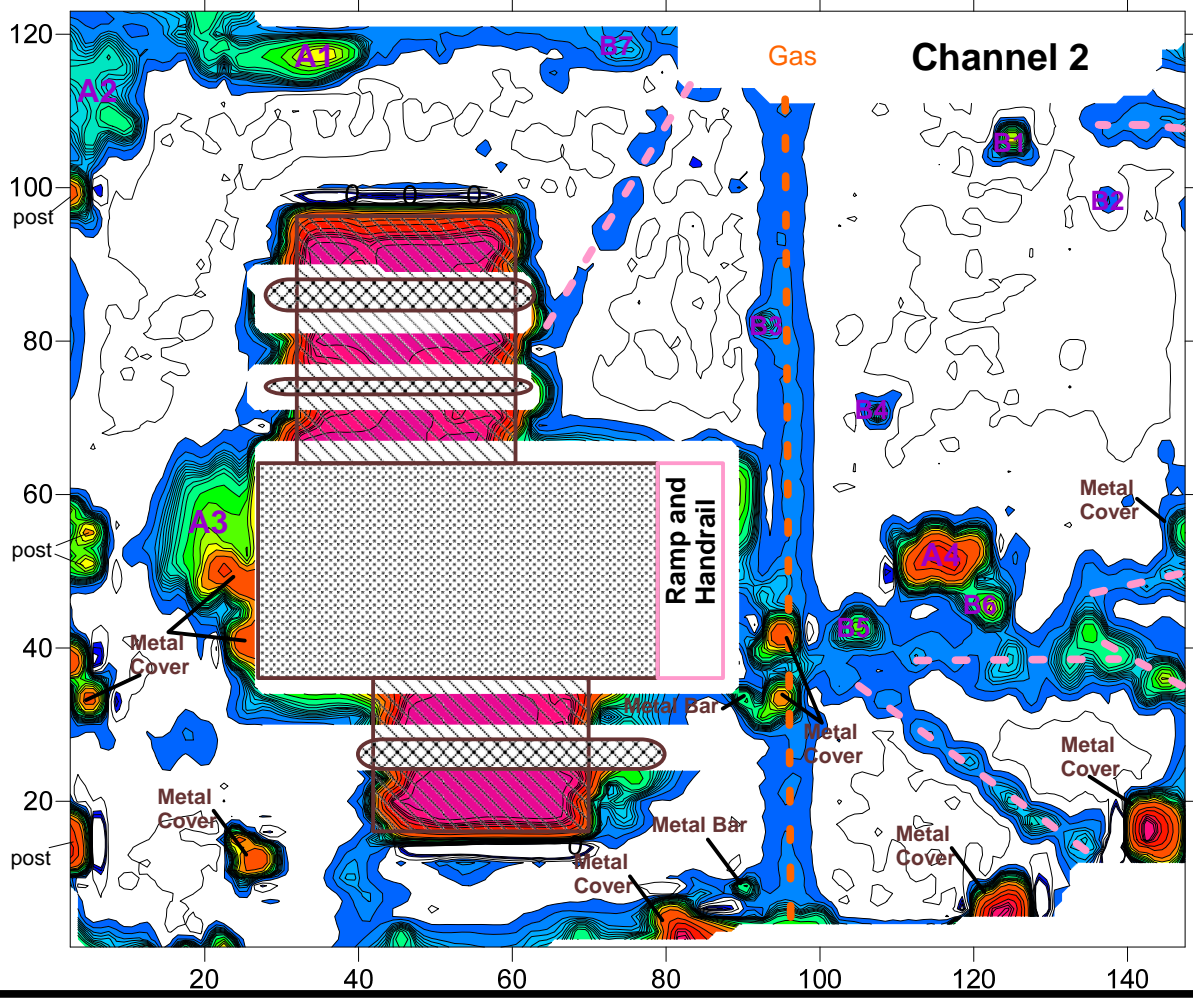
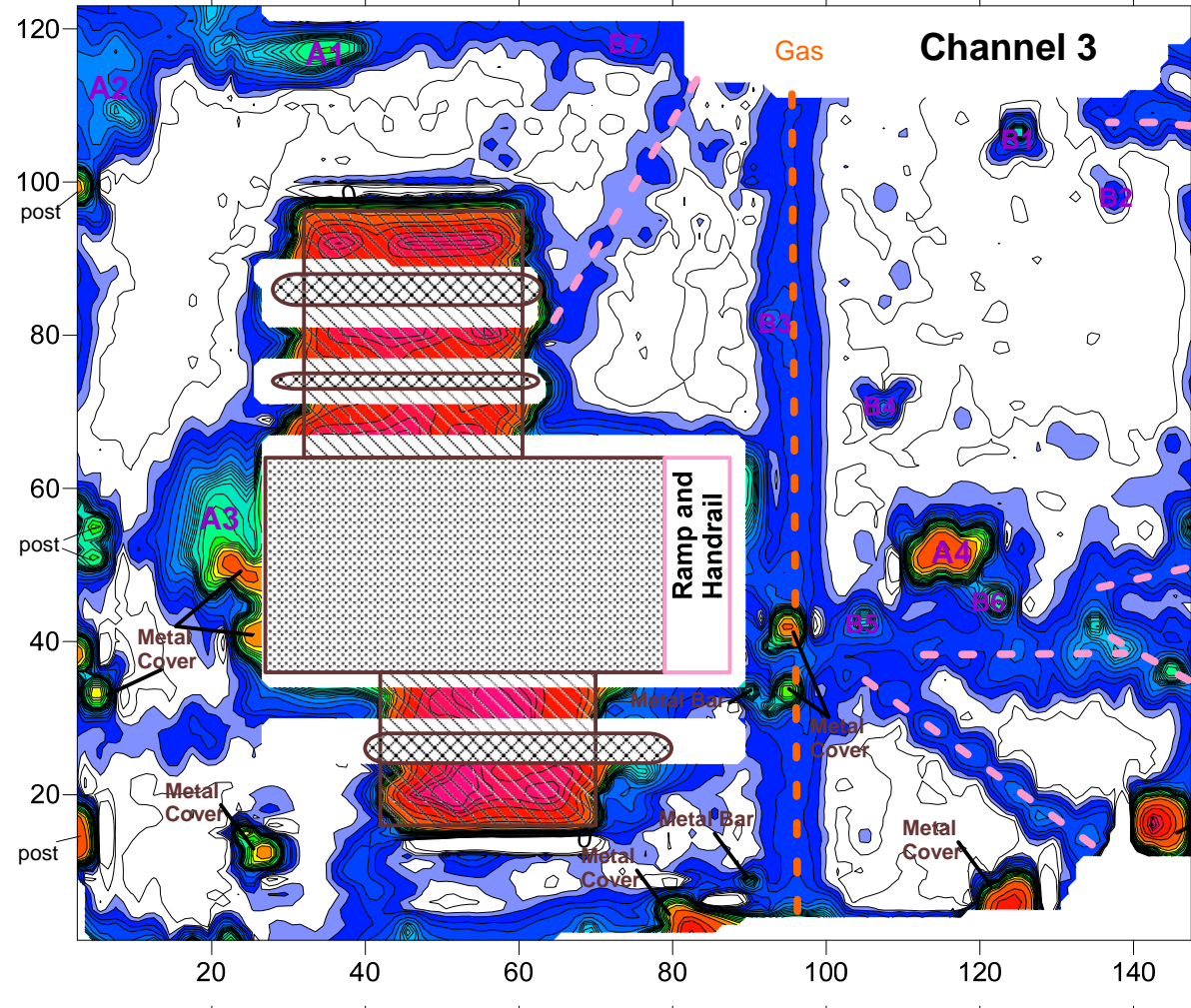
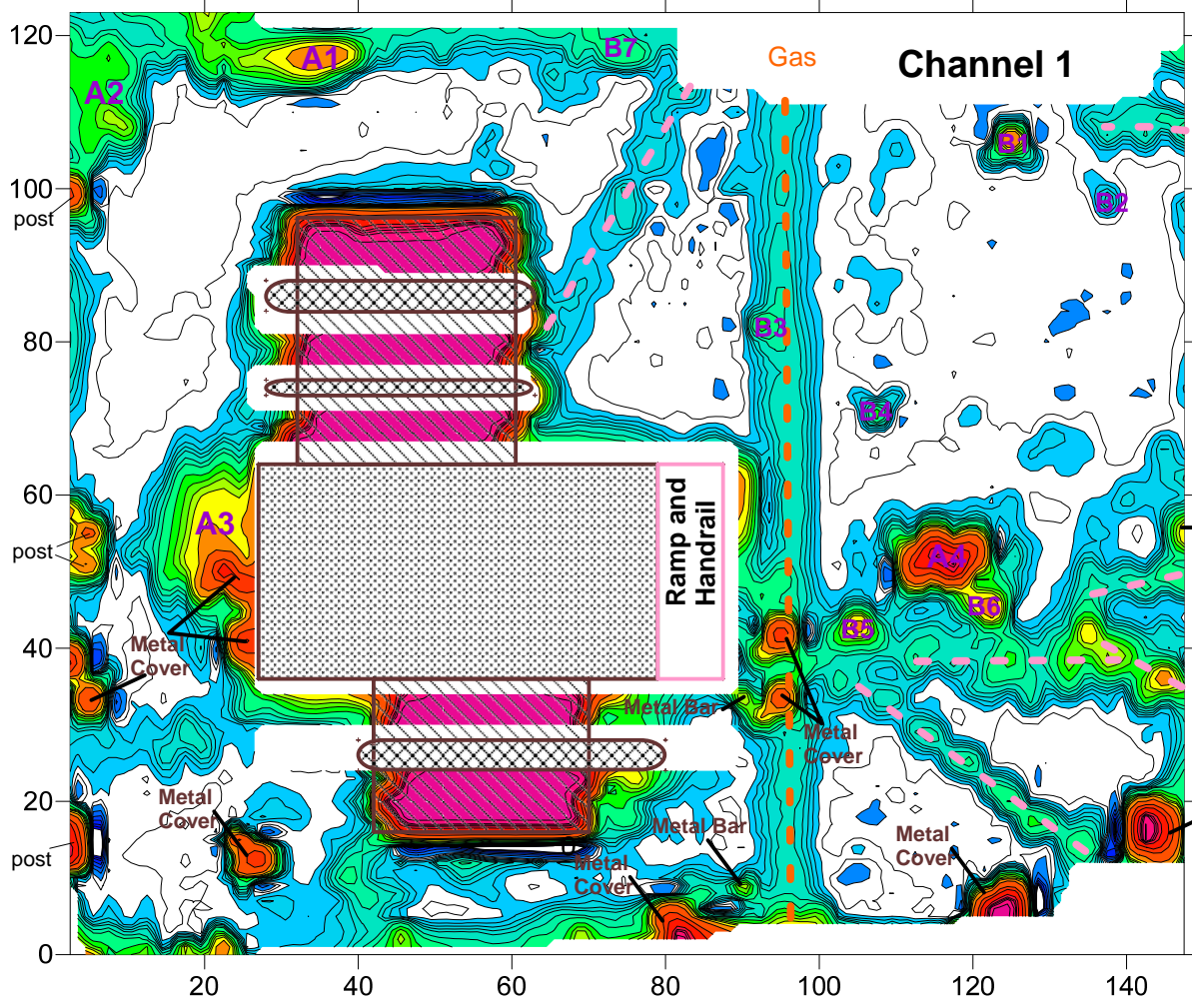
If you have any questions or require additional information, please contact us at 425-890-4321.

Sincerely,

**Global Geophysics**

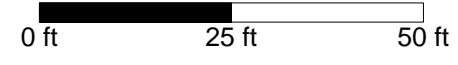
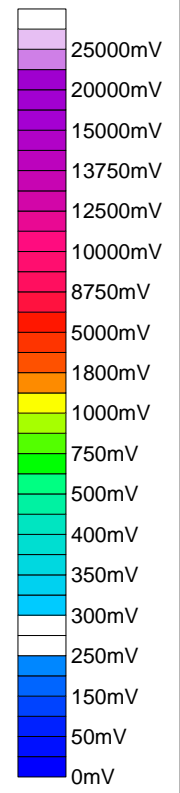
A handwritten signature in black ink, appearing to read "John Liu", with a stylized flourish at the end.

John Liu, Ph.D.  
Principal Geophysicist

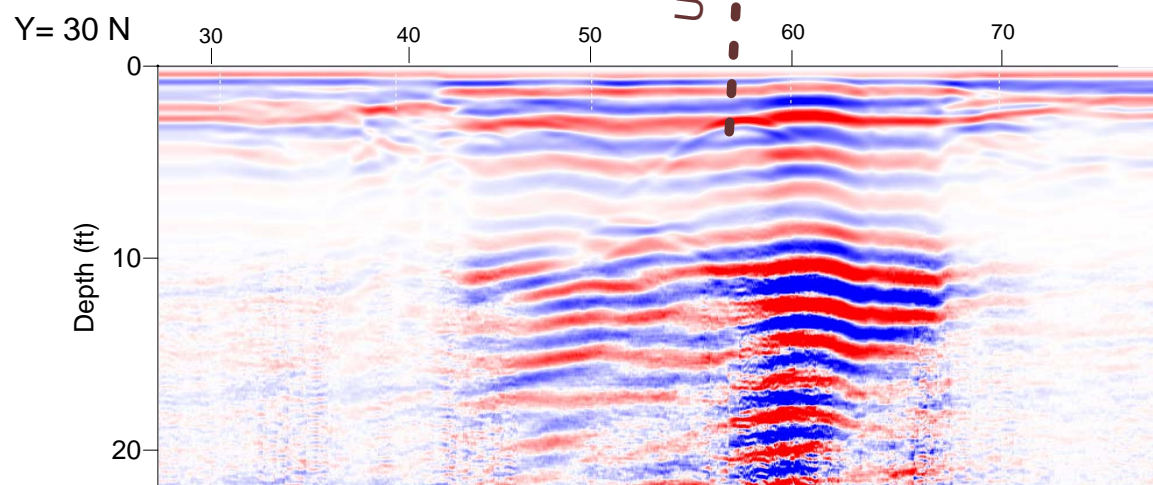
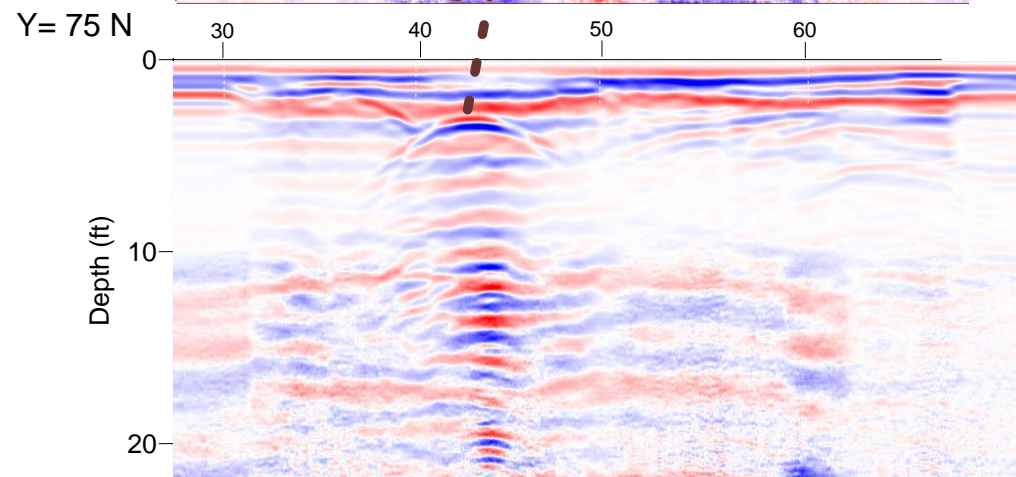
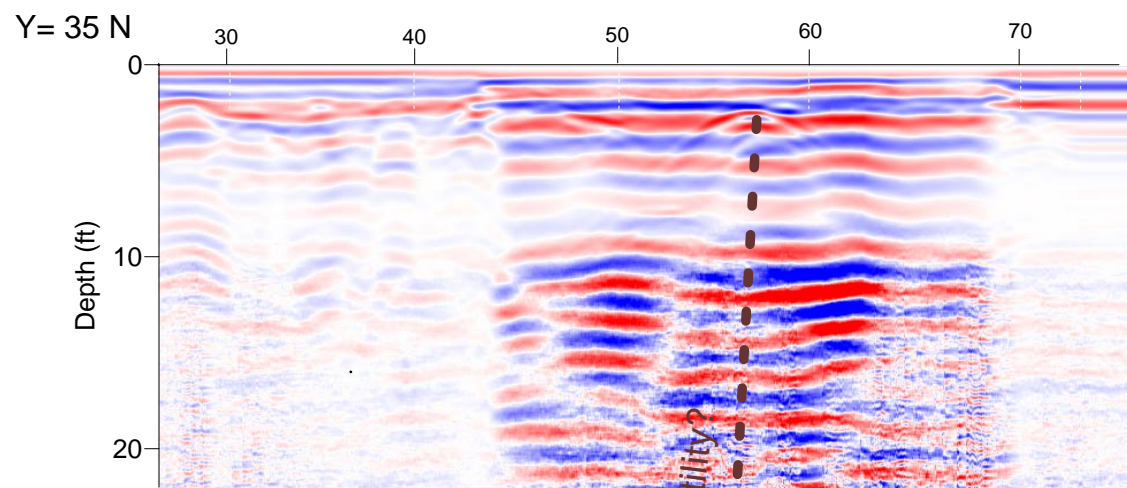
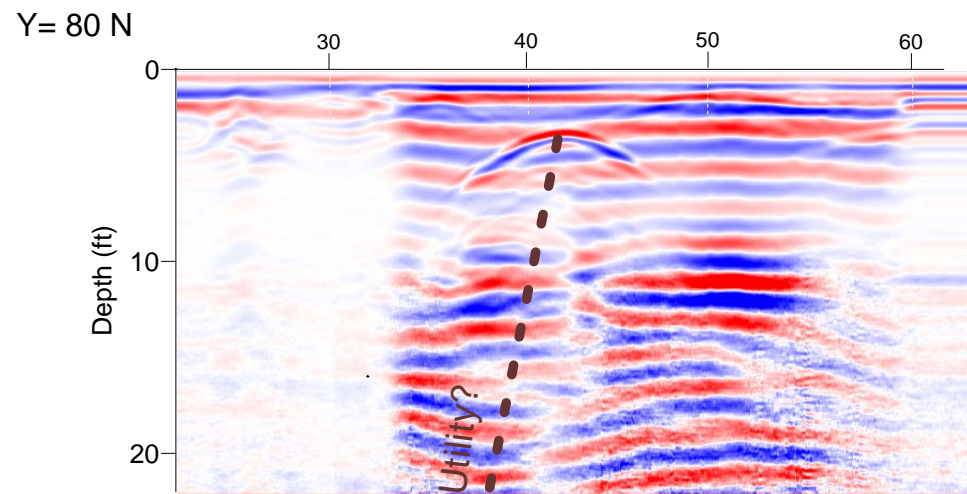
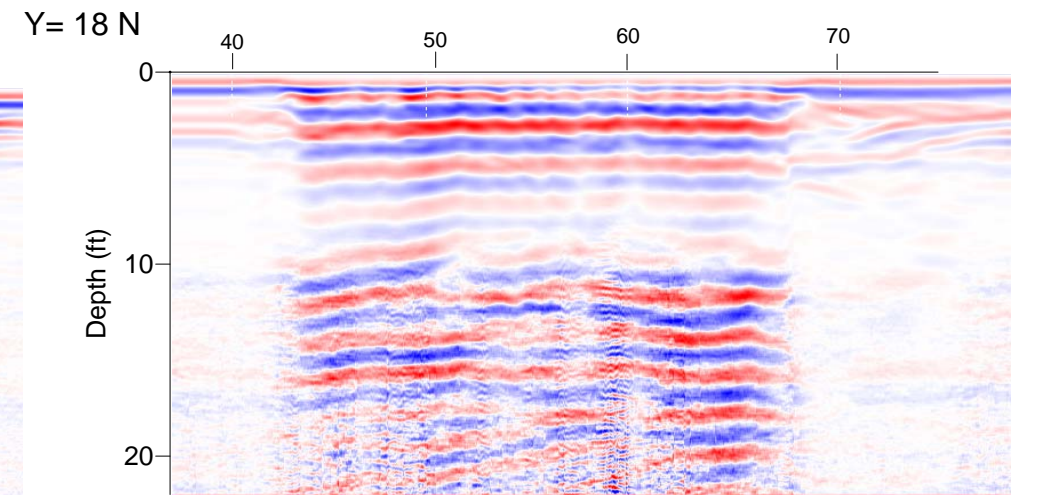
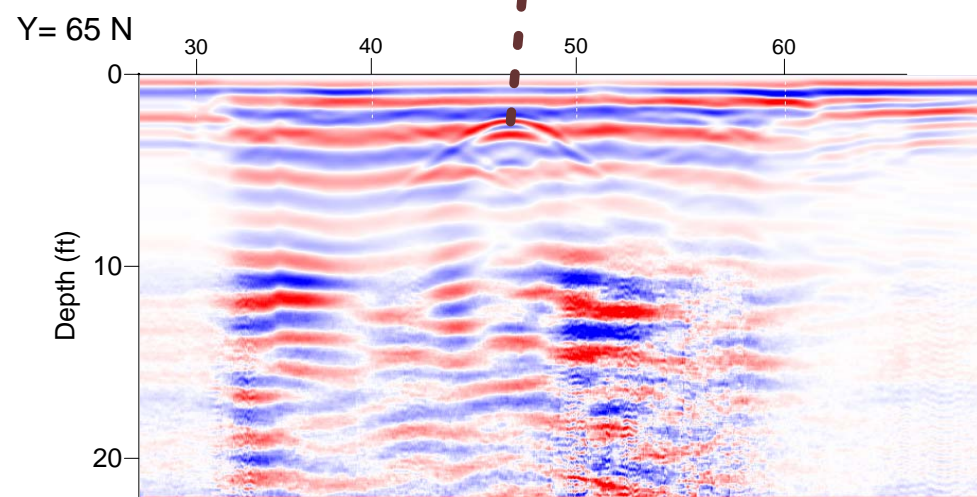
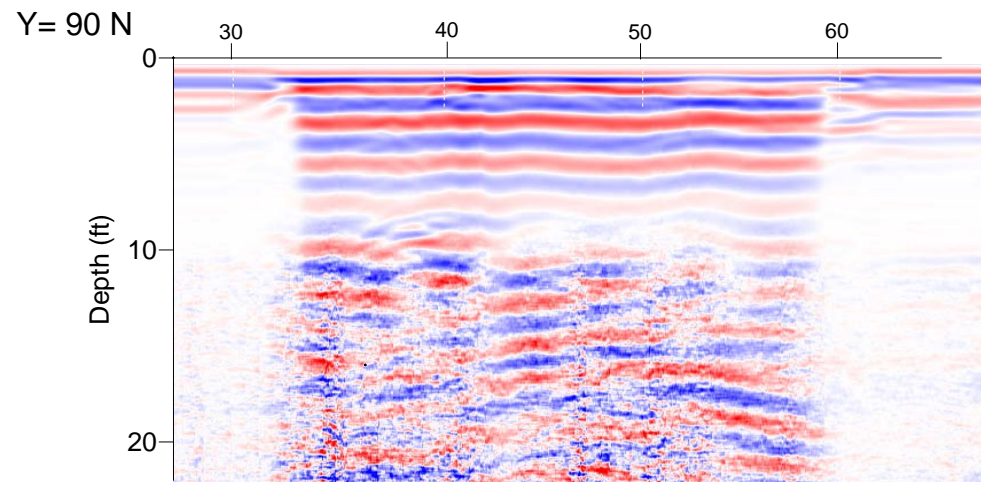
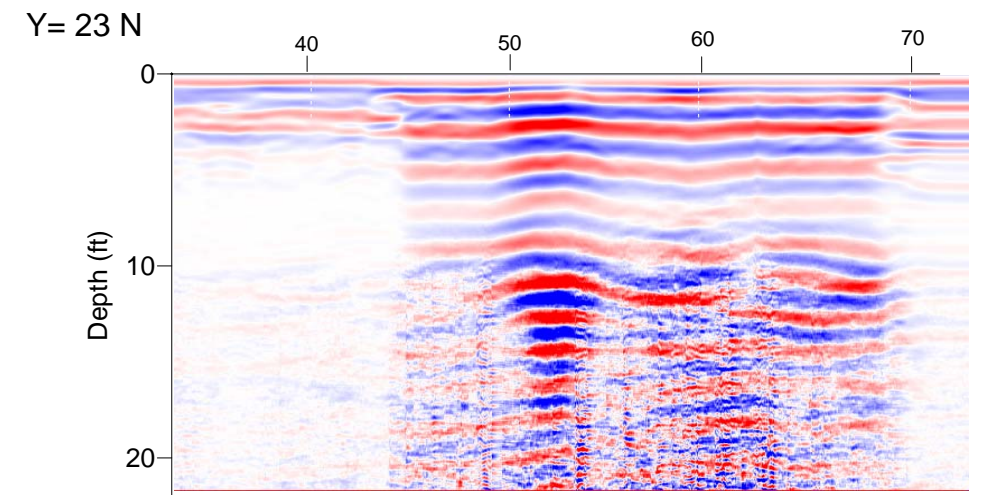
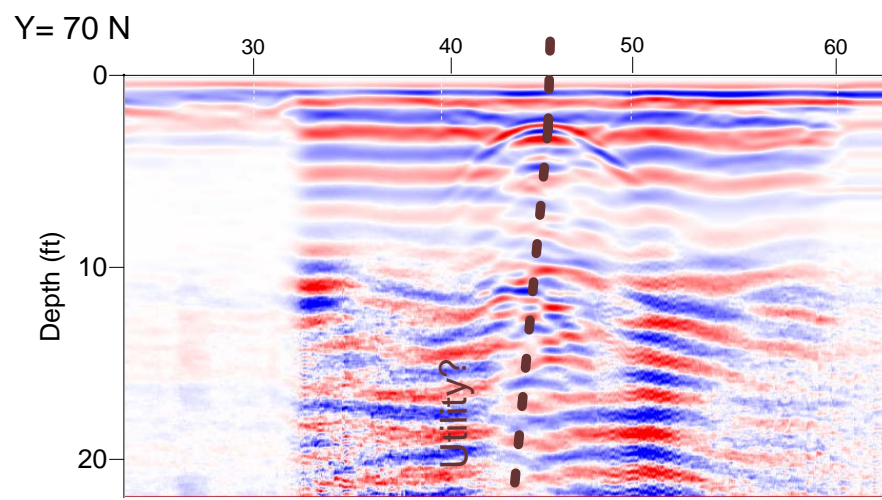
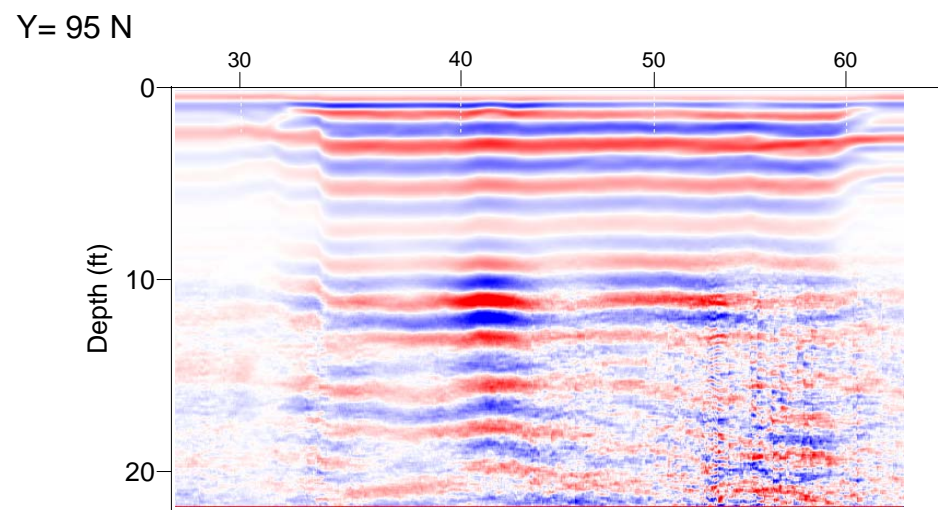


**LEGEND:**

- Building
- Concrete Island
- Concrete Pad
- Unknown linear metal object
- A1  
Large unknown metal object
- B1  
Smaller unknown metal object

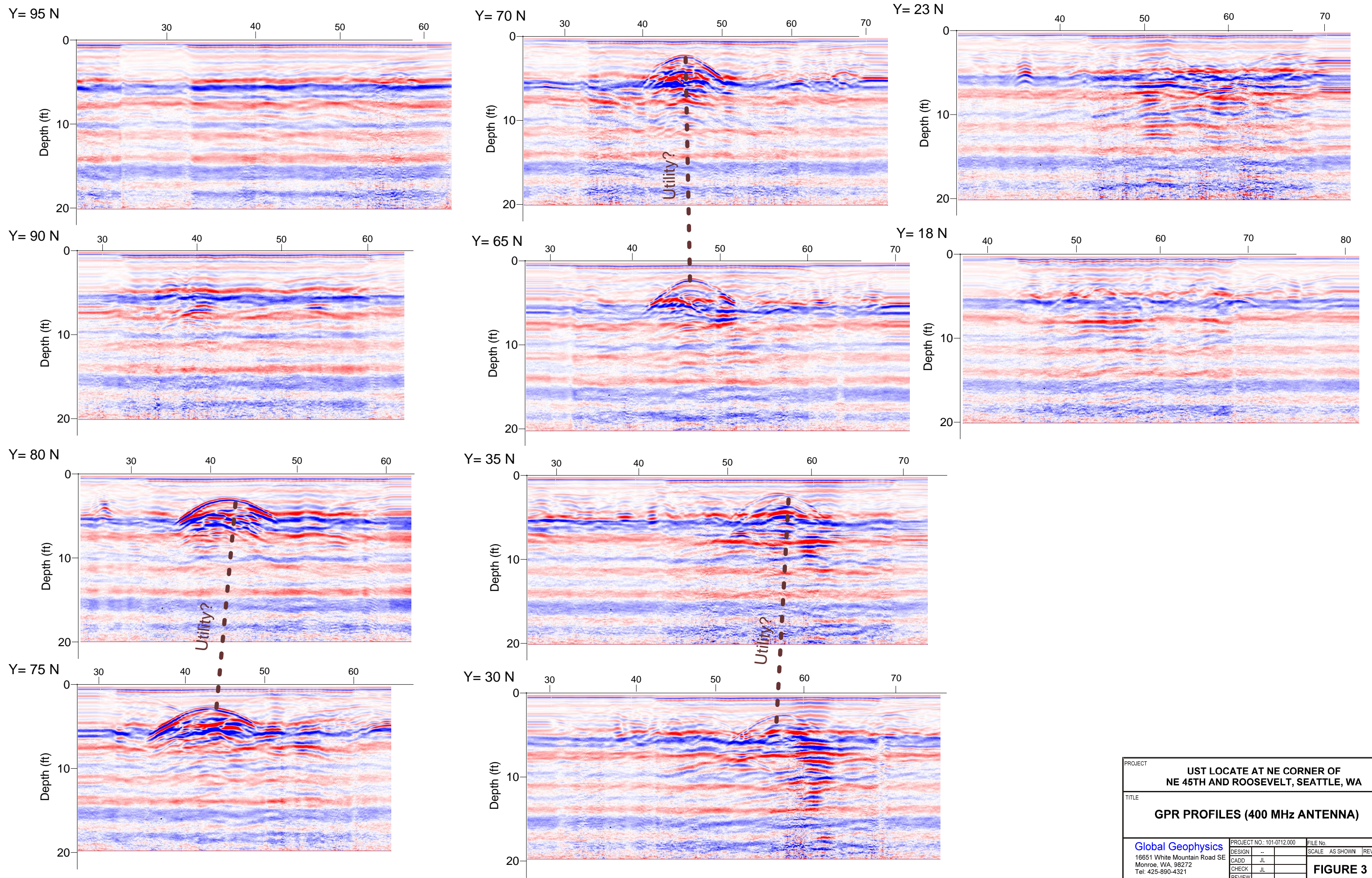


PROJECT	UST LOCATE AT NE CORNER OF NE 45TH AND ROOSEVELT, SEATTLE, WA		
TITLE	EM61 DATA CONTOUR PLANS		
Global Geophysics 16851 White Mountain Road SE Monroe, WA 98272 Tel: 425-890-4321	PROJECT NO: 101-0712.000	FILE No.	SCALE AS SHOWN REV.
DESIGN --	CADD JL	CHECK JL	REVIEW --
			<b>FIGURE 1</b>



PROJECT		UST LOCATE AT NE CORNER OF NE 45TH AND ROOSEVELT, SEATTLE, WA	
TITLE		GPR PROFILES (200 MHz ANTENNA)	
Global Geophysics 16851 White Mountain Road SE Monroe, WA 98272 Tel: 425-890-4321	PROJECT NO:	101-0712.000	FILE No.
	DESIGN	--	SCALE AS SHOWN
	CADD	JL	REV.
	CHECK	JL	
	REVIEW	--	
			<b>FIGURE 2</b>





PROJECT		UST LOCATE AT NE CORNER OF NE 45TH AND ROOSEVELT, SEATTLE, WA	
TITLE		GPR PROFILES (400 MHz ANTENNA)	
Global Geophysics 16851 White Mountain Road SE Monroe, WA 98272 Tel: 425-890-4321	PROJECT NO: 101-0712.000	FILE No.	SCALE AS SHOWN REV.
DESIGN	--		
CADD	JL		
CHECK	JL		
REVIEW	--		
			<b>FIGURE 3</b>

**APPENDIX C**  
**ANALYTICAL LABORATORY REPORTS**



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 4, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1109-146

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on September 23, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB' followed by a flourish.

David Baumeister  
Project Manager

Enclosures

Date of Report: October 4, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146  
Project: 21-1-16604-003

### Case Narrative

Samples were collected on September 22, 2011 and received by the laboratory on September 23, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

The gasoline result for sample GP-11-11:10 is attributed to a single peak; refer to 8260 results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

#### Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Some MTCA Method A cleanup levels are non-achievable for samples GP-5-11:13 and GP-7-11:14 due to the necessary dilution of the samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

### NWTPH-Gx

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-1-11:10</b>					
Laboratory ID:	09-146-01					
Gasoline	<b>ND</b>	6.3	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>104</i>	<i>68-124</i>				
<b>Client ID:</b>	<b>GP-2-11:9</b>					
Laboratory ID:	09-146-02					
Gasoline	<b>ND</b>	6.4	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>103</i>	<i>68-124</i>				
<b>Client ID:</b>	<b>GP-3-11:13</b>					
Laboratory ID:	09-146-03					
Gasoline	<b>830</b>	11	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>89</i>	<i>68-124</i>				
<b>Client ID:</b>	<b>GP-4-11:9.5</b>					
Laboratory ID:	09-146-04					
Gasoline	<b>ND</b>	7.6	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>109</i>	<i>68-124</i>				
<b>Client ID:</b>	<b>GP-5-11:13</b>					
Laboratory ID:	09-146-05					
Gasoline	<b>410</b>	6.4	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>100</i>	<i>68-124</i>				
<b>Client ID:</b>	<b>GP-6-11:13</b>					
Laboratory ID:	09-146-06					
Gasoline	<b>ND</b>	6.2	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>97</i>	<i>68-124</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

### NWTPH-Gx

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-7-11:14</b>					
Laboratory ID:	09-146-07					
Gasoline	<b>60</b>	13	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	68-124				
<b>Client ID:</b>	<b>GP-8-11:14</b>					
Laboratory ID:	09-146-08					
Gasoline	<b>50</b>	13	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	68-124				
<b>Client ID:</b>	<b>GP-9-11:13</b>					
Laboratory ID:	09-146-09					
Gasoline	<b>ND</b>	6.2	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	68-124				
<b>Client ID:</b>	<b>GP-10-11:10</b>					
Laboratory ID:	09-146-10					
Gasoline	<b>ND</b>	7.2	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	108	68-124				
<b>Client ID:</b>	<b>GP-11-11:10</b>					
Laboratory ID:	09-146-11					
Gasoline	<b>15</b>	6.7	NWTPH-Gx	9-26-11	9-26-11	Z
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	68-124				
<b>Client ID:</b>	<b>GP-12-11:10</b>					
Laboratory ID:	09-146-12					
Gasoline	<b>ND</b>	7.8	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	68-124				

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**NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0926S2					
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	68-124				
Laboratory ID:	MB0926S3					
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	106	68-124				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	09-146-02							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				103	108	68-124		
Laboratory ID:	09-146-04							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				109	113	68-124		

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 Project: 21-1-16604-003

**NWTPH-Dx**  
**(with acid/silica gel clean-up)**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-1-11:10</b>					
Laboratory ID:	09-146-01					
Diesel Range Organics	<b>ND</b>	58	NWTPH-Dx	9-27-11	9-28-11	
Lube Oil	<b>660</b>	120	NWTPH-Dx	9-27-11	9-28-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	64	50-150				
<b>Client ID:</b>	<b>GP-2-11:9</b>					
Laboratory ID:	09-146-02					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil Range Organics	<b>ND</b>	57	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				
<b>Client ID:</b>	<b>GP-3-11:13</b>					
Laboratory ID:	09-146-03					
Diesel Range Organics	<b>ND</b>	89	NWTPH-Dx	9-27-11	9-27-11	U1
Lube Oil Range Organics	<b>ND</b>	58	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				
<b>Client ID:</b>	<b>GP-4-11:9.5</b>					
Laboratory ID:	09-146-04					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	9-29-11	9-29-11	
Lube Oil Range Organics	<b>ND</b>	61	NWTPH-Dx	9-29-11	9-29-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	113	50-150				
<b>Client ID:</b>	<b>GP-5-11:13</b>					
Laboratory ID:	09-146-05					
Diesel Range Organics	<b>ND</b>	38	NWTPH-Dx	9-27-11	9-28-11	U1
Lube Oil	<b>77</b>	58	NWTPH-Dx	9-27-11	9-28-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	67	50-150				
<b>Client ID:</b>	<b>GP-6-11:13</b>					
Laboratory ID:	09-146-06					
Diesel Range Organics	<b>ND</b>	29	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil	<b>330</b>	58	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				



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**NWTPH-Dx**  
 (with acid/silica gel clean-up)

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-7-11:14</b>					
Laboratory ID:	09-146-07					
Diesel Range Organics	<b>ND</b>	300	NWTPH-Dx	9-27-11	9-28-11	U1
Lube Oil Range Organics	<b>ND</b>	58	NWTPH-Dx	9-27-11	9-28-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	75	50-150				

<b>Client ID:</b>	<b>GP-8-11:14</b>					
Laboratory ID:	09-146-08					
Diesel Range Organics	<b>ND</b>	540	NWTPH-Dx	9-27-11	9-28-11	U1
Lube Oil Range Organics	<b>ND</b>	57	NWTPH-Dx	9-27-11	9-28-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

<b>Client ID:</b>	<b>GP-9-11:13</b>					
Laboratory ID:	09-146-09					
Diesel Range Organics	<b>ND</b>	27	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil Range Organics	<b>ND</b>	55	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

<b>Client ID:</b>	<b>GP-10-11:10</b>					
Laboratory ID:	09-146-10					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil Range Organics	<b>ND</b>	61	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

<b>Client ID:</b>	<b>GP-11-11:10</b>					
Laboratory ID:	09-146-11					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

<b>Client ID:</b>	<b>GP-12-11:10</b>					
Laboratory ID:	09-146-12					
Diesel Range Organics	<b>ND</b>	29	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil	<b>59</b>	59	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

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**NWTPH-Dx  
 QUALITY CONTROL  
 (with acid/silica gel clean-up)**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0927S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	9-27-11	9-27-11	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	99	50-150				
Laboratory ID:	MB0929S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	9-29-11	9-29-11	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	9-29-11	9-29-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	117	50-150				

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>						
Laboratory ID:	09-146-02					
	ORIG	DUP				
Diesel Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
Lube Oil Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
<i>Surrogate:</i>						
<i>o-Terphenyl</i>			100	91	50-150	
Laboratory ID:	09-146-06					
	ORIG	DUP				
Diesel Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
Lube Oil	<b>285</b>	<b>252</b>		12	NA	
<i>Surrogate:</i>						
<i>o-Terphenyl</i>			86	91	50-150	
Laboratory ID:	09-194-14					
	ORIG	DUP				
Diesel Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
Lube Oil Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
<i>Surrogate:</i>						
<i>o-Terphenyl</i>			120	120	50-150	

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**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-1-11:10</b>					
Laboratory ID:	09-146-01					
CFC-12	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0068	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0068	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0014	EPA 8260	9-26-11	9-26-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-1-11:10</b>					
Laboratory ID:	09-146-01					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0027	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0068	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>92</i>	<i>55-121</i>				

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-2-11:9</b>					
Laboratory ID:	09-146-02					
CFC-12	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0067	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0067	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0013	EPA 8260	9-26-11	9-26-11	

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 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-2-11:9</b>					
Laboratory ID:	09-146-02					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0027	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0067	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0067	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>91</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-3-11:13</b>					
Laboratory ID:	09-146-03					
CFC-12	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chloromethane	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Vinyl Chloride	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Bromomethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chloroethane	ND	0.0067	EPA 8260	9-27-11	9-27-11	
CFC-11	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Acetone	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Methyl Iodide	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Carbon Disulfide	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Methylene Chloride	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Trans-1,2-Dichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Vinyl Acetate	ND	0.0067	EPA 8260	9-27-11	9-27-11	
2,2-Dichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Cis-1,2-Dichloroethene	0.0013	0.0013	EPA 8260	9-27-11	9-27-11	
2-Butanone	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Bromochloromethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chloroform	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Carbon Tetrachloride	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1-Dichloropropene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Benzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Trichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Dibromomethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Dichlorobromomethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
2-Chloroethylvinylether	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Cis-1,3-Dichloropropene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Methyl Isobutyl Ketone	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Toluene	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Trans-1,3-Dichloropropene	ND	0.0013	EPA 8260	9-27-11	9-27-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-3-11:13</b>					
Laboratory ID:	09-146-03					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Tetrachloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,3-Dichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
2-Hexanone	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Dibromochloromethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Ethylene dibromide	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Ethylbenzene	0.022	0.0013	EPA 8260	9-27-11	9-27-11	
m,p-Xylene	0.061	0.0027	EPA 8260	9-27-11	9-27-11	
o-Xylene	0.021	0.0013	EPA 8260	9-27-11	9-27-11	
Styrene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Bromoform	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Isopropylbenzene	0.0032	0.0013	EPA 8260	9-27-11	9-27-11	
Bromobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
n-Propylbenzene	0.0051	0.0013	EPA 8260	9-27-11	9-27-11	
2-Chlorotoluene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
4-Chlorotoluene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,3,5-Trimethylbenzene	0.011	0.0013	EPA 8260	9-27-11	9-27-11	
tert-Butylbenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2,4-Trimethylbenzene	0.033	0.0013	EPA 8260	9-27-11	9-27-11	
sec-Butylbenzene	0.0017	0.0013	EPA 8260	9-27-11	9-27-11	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
p-Isopropyltoluene	0.0018	0.0013	EPA 8260	9-27-11	9-27-11	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
n-Butylbenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dibromo-3-chloropropane	ND	0.0067	EPA 8260	9-27-11	9-27-11	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Hexachlorobutadiene	ND	0.0067	EPA 8260	9-27-11	9-27-11	
Naphthalene	0.015	0.0013	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>88</i>	<i>55-121</i>				



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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-4-11:9.5</b>					
Laboratory ID:	09-146-04					
CFC-12	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0070	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0070	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0014	EPA 8260	9-26-11	9-26-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-4-11:9.5</b>					
Laboratory ID:	09-146-04					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0028	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0070	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0070	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	63-127				
<i>Toluene-d8</i>	120	65-129				
<i>Benzene, 1-bromo-4-fluoro-</i>	95	55-121				

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 Samples Submitted: September 23, 2011  
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 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-5-11:13</b>					
<b>Laboratory ID:</b>	<b>09-146-05</b>					
CFC-12	ND	0.072	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.36	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.072	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.36	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.36	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.36	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.072	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.36	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.36	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.072	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.36	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.36	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.36	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.36	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.072	EPA 8260	9-26-11	9-26-11	

Date of Report: October 4, 2011  
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 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-5-11:13</b>					
Laboratory ID:	09-146-05					
1,1,2-Trichloroethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.072	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.36	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.072	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.14	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.072	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	0.076	0.072	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.072	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	0.12	0.072	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.072	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	0.17	0.072	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	0.25	0.072	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	0.12	0.072	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	0.12	0.072	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	0.099	0.072	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.36	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.36	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.072	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.072	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>88</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-6-11:13</b>					
<b>Laboratory ID:</b>	<b>09-146-06</b>					
CFC-12	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0061	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0061	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0012	EPA 8260	9-26-11	9-26-11	

Date of Report: October 4, 2011  
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 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-6-11:13</b>					
Laboratory ID:	09-146-06					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0024	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0061	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>92</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-7-11:14</b>					
Laboratory ID:	09-146-07					
CFC-12	ND	0.064	EPA 8260	9-26-11	9-27-11	
Chloromethane	ND	0.32	EPA 8260	9-26-11	9-27-11	
Vinyl Chloride	ND	0.064	EPA 8260	9-26-11	9-27-11	
Bromomethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Chloroethane	ND	0.32	EPA 8260	9-26-11	9-27-11	
CFC-11	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,1-Dichloroethene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Acetone	ND	0.32	EPA 8260	9-26-11	9-27-11	
Methyl Iodide	ND	0.32	EPA 8260	9-26-11	9-27-11	
Carbon Disulfide	ND	0.064	EPA 8260	9-26-11	9-27-11	
Methylene Chloride	ND	0.32	EPA 8260	9-26-11	9-27-11	
Trans-1,2-Dichloroethene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Methyl t-Butyl Ether	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,1-Dichloroethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Vinyl Acetate	ND	0.32	EPA 8260	9-26-11	9-27-11	
2,2-Dichloropropane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Cis-1,2-Dichloroethene	ND	0.064	EPA 8260	9-26-11	9-27-11	
2-Butanone	ND	0.32	EPA 8260	9-26-11	9-27-11	
Bromochloromethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Chloroform	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,1,1-Trichloroethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Carbon Tetrachloride	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,1-Dichloropropene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Benzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2-Dichloroethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Trichloroethene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2-Dichloropropane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Dibromomethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Dichlorobromomethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
2-Chloroethylvinylether	ND	0.32	EPA 8260	9-26-11	9-27-11	
Cis-1,3-Dichloropropene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Methyl Isobutyl Ketone	ND	0.32	EPA 8260	9-26-11	9-27-11	
Toluene	ND	0.32	EPA 8260	9-26-11	9-27-11	
Trans-1,3-Dichloropropene	ND	0.064	EPA 8260	9-26-11	9-27-11	

Date of Report: October 4, 2011  
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 Project: 21-1-16604-003

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-7-11:14</b>					
Laboratory ID:	09-146-07					
1,1,2-Trichloroethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Tetrachloroethene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,3-Dichloropropane	ND	0.064	EPA 8260	9-26-11	9-27-11	
2-Hexanone	ND	0.32	EPA 8260	9-26-11	9-27-11	
Dibromochloromethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Ethylene dibromide	ND	0.064	EPA 8260	9-26-11	9-27-11	
Chlorobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,1,1,2-Tetrachloroethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
Ethylbenzene	0.092	0.064	EPA 8260	9-26-11	9-27-11	
m,p-Xylene	ND	0.13	EPA 8260	9-26-11	9-27-11	
o-Xylene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Styrene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Bromoform	ND	0.064	EPA 8260	9-26-11	9-27-11	
Isopropylbenzene	0.075	0.064	EPA 8260	9-26-11	9-27-11	
Bromobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,1,2,2-Tetrachloroethane	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2,3-Trichloropropane	ND	0.064	EPA 8260	9-26-11	9-27-11	
n-Propylbenzene	0.098	0.064	EPA 8260	9-26-11	9-27-11	
2-Chlorotoluene	ND	0.064	EPA 8260	9-26-11	9-27-11	
4-Chlorotoluene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,3,5-Trimethylbenzene	0.16	0.064	EPA 8260	9-26-11	9-27-11	
tert-Butylbenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2,4-Trimethylbenzene	0.34	0.064	EPA 8260	9-26-11	9-27-11	
sec-Butylbenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,3-Dichlorobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
p-Isopropyltoluene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,4-Dichlorobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2-Dichlorobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
n-Butylbenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2-Dibromo-3-chloropropane	ND	0.32	EPA 8260	9-26-11	9-27-11	
1,2,4-Trichlorobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
Hexachlorobutadiene	ND	0.32	EPA 8260	9-26-11	9-27-11	
Naphthalene	ND	0.064	EPA 8260	9-26-11	9-27-11	
1,2,3-Trichlorobenzene	ND	0.064	EPA 8260	9-26-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>87</i>	<i>55-121</i>				



Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-8-11:14</b>					
Laboratory ID:	09-146-08					
CFC-12	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chloromethane	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Vinyl Chloride	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Bromomethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chloroethane	ND	0.0066	EPA 8260	9-27-11	9-27-11	
CFC-11	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Acetone	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Methyl Iodide	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Carbon Disulfide	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Methylene Chloride	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Trans-1,2-Dichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Vinyl Acetate	ND	0.0066	EPA 8260	9-27-11	9-27-11	
2,2-Dichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Cis-1,2-Dichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
2-Butanone	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Bromochloromethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chloroform	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Carbon Tetrachloride	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1-Dichloropropene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Benzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Trichloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Dibromomethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Dichlorobromomethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
2-Chloroethylvinylether	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Cis-1,3-Dichloropropene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Methyl Isobutyl Ketone	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Toluene	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Trans-1,3-Dichloropropene	ND	0.0013	EPA 8260	9-27-11	9-27-11	

Date of Report: October 4, 2011  
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 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-8-11:14</b>					
Laboratory ID:	09-146-08					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Tetrachloroethene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,3-Dichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
2-Hexanone	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Dibromochloromethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Ethylene dibromide	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Chlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Ethylbenzene	0.20	0.0013	EPA 8260	9-27-11	9-27-11	
m,p-Xylene	0.21	0.0026	EPA 8260	9-27-11	9-27-11	
o-Xylene	0.0042	0.0013	EPA 8260	9-27-11	9-27-11	
Styrene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Bromoform	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Isopropylbenzene	0.23	0.0013	EPA 8260	9-27-11	9-27-11	
Bromobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	9-27-11	9-27-11	
n-Propylbenzene	0.17	0.0013	EPA 8260	9-27-11	9-27-11	
2-Chlorotoluene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
4-Chlorotoluene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,3,5-Trimethylbenzene	0.25	0.0013	EPA 8260	9-27-11	9-27-11	
tert-Butylbenzene	0.0076	0.0013	EPA 8260	9-27-11	9-27-11	
1,2,4-Trimethylbenzene	0.14	0.077	EPA 8260	9-26-11	9-27-11	
sec-Butylbenzene	0.095	0.0013	EPA 8260	9-27-11	9-27-11	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
p-Isopropyltoluene	0.12	0.0013	EPA 8260	9-27-11	9-27-11	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
n-Butylbenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260	9-27-11	9-27-11	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
Hexachlorobutadiene	ND	0.0066	EPA 8260	9-27-11	9-27-11	
Naphthalene	0.083	0.0013	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>111</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-9-11:13</b>					
Laboratory ID:	09-146-09					
CFC-12	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Chloromethane	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Vinyl Chloride	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Bromomethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Chloroethane	ND	0.0087	EPA 8260	9-27-11	9-27-11	
CFC-11	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Acetone	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Methyl Iodide	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Carbon Disulfide	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Methylene Chloride	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Trans-1,2-Dichloroethene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Methyl t-Butyl Ether	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Vinyl Acetate	ND	0.0087	EPA 8260	9-27-11	9-27-11	
2,2-Dichloropropane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Cis-1,2-Dichloroethene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
2-Butanone	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Bromochloromethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Chloroform	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Carbon Tetrachloride	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,1-Dichloropropene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Benzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2-Dichloroethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Trichloroethene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2-Dichloropropane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Dibromomethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Dichlorobromomethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
2-Chloroethylvinylether	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Cis-1,3-Dichloropropene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Methyl Isobutyl Ketone	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Toluene	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Trans-1,3-Dichloropropene	ND	0.0017	EPA 8260	9-27-11	9-27-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-9-11:13</b>					
Laboratory ID:	09-146-09					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Tetrachloroethene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,3-Dichloropropane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
2-Hexanone	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Dibromochloromethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Ethylene dibromide	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Chlorobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Ethylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
m,p-Xylene	ND	0.0035	EPA 8260	9-27-11	9-27-11	
o-Xylene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Styrene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Bromoform	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Isopropylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Bromobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,1,2,2-Tetrachloroethane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260	9-27-11	9-27-11	
n-Propylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
2-Chlorotoluene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
4-Chlorotoluene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,3,5-Trimethylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
tert-Butylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2,4-Trimethylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
sec-Butylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,3-Dichlorobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
p-Isopropyltoluene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,4-Dichlorobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2-Dichlorobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
n-Butylbenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2-Dibromo-3-chloropropane	ND	0.0087	EPA 8260	9-27-11	9-27-11	
1,2,4-Trichlorobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
Hexachlorobutadiene	ND	0.0087	EPA 8260	9-27-11	9-27-11	
Naphthalene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichlorobenzene	ND	0.0017	EPA 8260	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>93</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-10-11:10</b>					
Laboratory ID:	09-146-10					
CFC-12	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0074	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0074	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0015	EPA 8260	9-26-11	9-26-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-10-11:10</b>					
Laboratory ID:	09-146-10					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	0.027	0.0015	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0030	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0074	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0074	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>88</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
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 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-11-11:10</b>					
Laboratory ID:	09-146-11					
CFC-12	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0086	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0086	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Trichloroethene	0.0021	0.0017	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0017	EPA 8260	9-26-11	9-26-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-11-11:10</b>					
<b>Laboratory ID:</b>	09-146-11					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	15	0.16	EPA 8260	9-27-11	9-27-11	
1,3-Dichloropropane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0034	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0086	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0086	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0017	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>93</i>	<i>55-121</i>				



Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-12-11:10</b>					
Laboratory ID:	09-146-12					
CFC-12	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0082	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0082	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0016	EPA 8260	9-26-11	9-26-11	

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**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-12-11:10</b>					
Laboratory ID:	09-146-12					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	0.10	0.0016	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0033	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0082	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0082	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>92</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0926S1					
CFC-12	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	0.0050	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Acetone	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	0.0050	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Toluene	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	9-26-11	9-26-11	

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**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0926S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.0020	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>91</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
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**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0927S1					
CFC-12	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Chloromethane	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Vinyl Chloride	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Bromomethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Chloroethane	ND	0.0050	EPA 8260	9-27-11	9-27-11	
CFC-11	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Acetone	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Methyl Iodide	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Carbon Disulfide	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Methylene Chloride	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Vinyl Acetate	ND	0.0050	EPA 8260	9-27-11	9-27-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
2-Butanone	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Bromochloromethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Chloroform	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Benzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Trichloroethene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Dibromomethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Toluene	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	9-27-11	9-27-11	

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**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0927S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Tetrachloroethene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
2-Hexanone	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Dibromochloromethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Ethylene dibromide	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Chlorobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Ethylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
m,p-Xylene	ND	0.0020	EPA 8260	9-27-11	9-27-11	
o-Xylene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Styrene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Bromoform	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Isopropylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Bromobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	9-27-11	9-27-11	
n-Propylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
n-Butylbenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	9-27-11	9-27-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	9-27-11	9-27-11	
Naphthalene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	9-27-11	9-27-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>91</i>	<i>55-121</i>				

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0926S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0544</b>	<b>0.0578</b>	0.0500	0.0500	109	116	70-130	6	19	
Benzene	<b>0.0534</b>	<b>0.0527</b>	0.0500	0.0500	107	105	70-125	1	15	
Trichloroethene	<b>0.0527</b>	<b>0.0514</b>	0.0500	0.0500	105	103	70-122	2	14	
Toluene	<b>0.0509</b>	<b>0.0510</b>	0.0500	0.0500	102	102	73-120	0	16	
Chlorobenzene	<b>0.0458</b>	<b>0.0458</b>	0.0500	0.0500	92	92	74-109	0	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>100</i>	<i>104</i>	<i>63-127</i>			
<i>Toluene-d8</i>					<i>96</i>	<i>100</i>	<i>65-129</i>			
<i>Benzene, 1-bromo-4-fluoro-</i>					<i>88</i>	<i>90</i>	<i>55-121</i>			

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0927S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0539</b>	<b>0.0559</b>	0.0500	0.0500	108	112	70-130	4	19	
Benzene	<b>0.0534</b>	<b>0.0524</b>	0.0500	0.0500	107	105	70-125	2	15	
Trichloroethene	<b>0.0497</b>	<b>0.0530</b>	0.0500	0.0500	99	106	70-122	6	14	
Toluene	<b>0.0500</b>	<b>0.0534</b>	0.0500	0.0500	100	107	73-120	7	16	
Chlorobenzene	<b>0.0454</b>	<b>0.0454</b>	0.0500	0.0500	91	91	74-109	0	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					97	105	63-127			
<i>Toluene-d8</i>					94	102	65-129			
<i>Benzene, 1-bromo-4-fluoro-</i>					85	89	55-121			



Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date	Date	Flags
				Prepared	Analyzed	
Lab ID:	09-146-01					
<b>Client ID:</b>	<b>GP-1-11:10</b>					
Arsenic	<b>ND</b>	12	6010B	9-28-11	9-29-11	
Cadmium	<b>ND</b>	0.58	6010B	9-28-11	9-29-11	
Chromium	<b>47</b>	0.58	6010B	9-28-11	9-29-11	
Lead	<b>ND</b>	5.8	6010B	9-28-11	9-29-11	
Mercury	<b>ND</b>	0.29	7471A	9-26-11	9-26-11	

Lab ID:	09-146-02					
<b>Client ID:</b>	<b>GP-2-11:9</b>					
Arsenic	<b>ND</b>	11	6010B	9-28-11	9-29-11	
Cadmium	<b>ND</b>	0.57	6010B	9-28-11	9-29-11	
Chromium	<b>37</b>	0.57	6010B	9-28-11	9-29-11	
Lead	<b>ND</b>	5.7	6010B	9-28-11	9-29-11	
Mercury	<b>ND</b>	0.28	7471A	9-26-11	9-26-11	

Lab ID:	09-146-03					
<b>Client ID:</b>	<b>GP-3-11:13</b>					
Arsenic	<b>ND</b>	12	6010B	9-28-11	9-29-11	
Cadmium	<b>ND</b>	0.58	6010B	9-28-11	9-29-11	
Chromium	<b>30</b>	0.58	6010B	9-28-11	9-29-11	
Lead	<b>ND</b>	5.8	6010B	9-28-11	9-29-11	
Mercury	<b>ND</b>	0.29	7471A	9-26-11	9-26-11	

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date	Date	Flags
				Prepared	Analyzed	
Lab ID:	09-146-04					
<b>Client ID:</b>	<b>GP-4-11:9.5</b>					
Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.61	6010B	9-28-11	9-29-11	
Chromium	54	0.61	6010B	9-28-11	9-29-11	
Lead	ND	6.1	6010B	9-28-11	9-29-11	
Mercury	ND	0.3	7471A	9-26-11	9-26-11	

Lab ID: 09-146-05  
**Client ID: GP-5-11:13**

Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.58	6010B	9-28-11	9-29-11	
Chromium	53	0.58	6010B	9-28-11	9-29-11	
Lead	ND	5.8	6010B	9-28-11	9-29-11	
Mercury	ND	0.29	7471A	9-26-11	9-26-11	

Lab ID: 09-146-06  
**Client ID: GP-6-11:13**

Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.58	6010B	9-28-11	9-29-11	
Chromium	45	0.58	6010B	9-28-11	9-29-11	
Lead	ND	5.8	6010B	9-28-11	9-29-11	
Mercury	ND	0.29	7471A	9-26-11	9-26-11	

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date	Date	Flags
				Prepared	Analyzed	
Lab ID:	09-146-07					
<b>Client ID:</b>	<b>GP-7-11:14</b>					
Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.58	6010B	9-28-11	9-29-11	
Chromium	38	0.58	6010B	9-28-11	9-29-11	
Lead	ND	5.8	6010B	9-28-11	9-29-11	
Mercury	ND	0.29	7471A	9-26-11	9-26-11	

Lab ID:	09-146-08					
<b>Client ID:</b>	<b>GP-8-11:14</b>					
Arsenic	ND	11	6010B	9-28-11	9-29-11	
Cadmium	ND	0.57	6010B	9-28-11	9-29-11	
Chromium	45	0.57	6010B	9-28-11	9-29-11	
Lead	ND	5.7	6010B	9-28-11	9-29-11	
Mercury	ND	0.28	7471A	9-26-11	9-26-11	

Lab ID:	09-146-09					
<b>Client ID:</b>	<b>GP-9-11:13</b>					
Arsenic	ND	11	6010B	9-28-11	9-29-11	
Cadmium	ND	0.55	6010B	9-28-11	9-29-11	
Chromium	38	0.55	6010B	9-28-11	9-29-11	
Lead	ND	5.5	6010B	9-28-11	9-29-11	
Mercury	ND	0.27	7471A	9-26-11	9-26-11	

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date	Date	Flags
				Prepared	Analyzed	
Lab ID:	09-146-10					
<b>Client ID:</b>	<b>GP-10-11:10</b>					
Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.61	6010B	9-28-11	9-29-11	
Chromium	59	0.61	6010B	9-28-11	9-29-11	
Lead	ND	6.1	6010B	9-28-11	9-29-11	
Mercury	ND	0.3	7471A	9-26-11	9-26-11	

Lab ID:	09-146-11					
<b>Client ID:</b>	<b>GP-11-11:10</b>					
Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.60	6010B	9-28-11	9-29-11	
Chromium	56	0.60	6010B	9-28-11	9-29-11	
Lead	ND	6.0	6010B	9-28-11	9-29-11	
Mercury	ND	0.30	7471A	9-26-11	9-26-11	

Lab ID:	09-146-12					
<b>Client ID:</b>	<b>GP-12-11:10</b>					
Arsenic	ND	12	6010B	9-28-11	9-29-11	
Cadmium	ND	0.59	6010B	9-28-11	9-29-11	
Chromium	56	0.59	6010B	9-28-11	9-29-11	
Lead	ND	5.9	6010B	9-28-11	9-29-11	
Mercury	ND	0.29	7471A	9-26-11	9-26-11	

Date of Report: October 4, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146  
Project: 21-1-16604-003

**TOTAL METALS  
EPA 6010B  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-28-11  
Date Analyzed: 9-29-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0928S1

Analyte	Method	Result	PQL
Arsenic	6010B	<b>ND</b>	10
Cadmium	6010B	<b>ND</b>	0.50
Chromium	6010B	<b>ND</b>	0.50
Lead	6010B	<b>ND</b>	5.0

Date of Report: October 4, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146  
Project: 21-1-16604-003

**TOTAL METALS  
EPA 7471A  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-26-11  
Date Analyzed: 9-26-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0926S2

Analyte	Method	Result	PQL
Mercury	7471A	<b>ND</b>	0.25

Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 9-28-11  
 Date Analyzed: 9-29-11  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: 09-148-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	<b>ND</b>	<b>ND</b>	NA	10	
Cadmium	<b>0.601</b>	<b>ND</b>	NA	0.50	
Chromium	<b>36.5</b>	<b>36.1</b>	1	0.50	
Lead	<b>10.3</b>	<b>8.84</b>	15	5.0	

Date of Report: October 4, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146  
Project: 21-1-16604-003

**TOTAL METALS  
EPA 7471A  
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-26-11

Date Analyzed: 9-26-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-148-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	<b>ND</b>	<b>ND</b>	NA	0.25	



Date of Report: October 4, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B  
 MS/MSD QUALITY CONTROL**

Date Extracted: 9-28-11

Date Analyzed: 9-29-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-148-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	<b>98.4</b>	98	<b>101</b>	101	3	
Cadmium	50.0	<b>49.2</b>	97	<b>50.3</b>	99	2	
Chromium	100	<b>132</b>	96	<b>135</b>	98	2	
Lead	250	<b>248</b>	95	<b>252</b>	97	2	

Date of Report: October 4, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146  
Project: 21-1-16604-003

**TOTAL METALS  
EPA 7471A  
MS/MSD QUALITY CONTROL**

Date Extracted: 9-26-11

Date Analyzed: 9-26-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-148-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	0.500	<b>0.533</b>	107	<b>0.543</b>	109	2	

Date of Report: October 4, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146  
Project: 21-1-16604-003

**% MOISTURE**

Date Analyzed: 9-26-11

Client ID	Lab ID	% Moisture
GP-1-11:10	09-146-01	13
GP-2-11:9	09-146-02	12
GP-3-11:13	09-146-03	13
GP-4-11:9.5	09-146-04	18
GP-5-11:13	09-146-05	13
GP-6-11:13	09-146-06	13
GP-7-11:14	09-146-07	14
GP-8-11:14	09-146-08	12
GP-9-11:13	09-146-09	8
GP-10-11:10	09-146-10	18
GP-11-11:10	09-146-11	16
GP-12-11:10	09-146-12	15



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z - The gasoline result is attributed to a single peak; refer to EPA 8260B results.
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference

# Chain of Custody

**09-146**

Company: **SHANNON & WILSON**  
 Project Number: **21-1-16604-003**  
 Project Name: **KEY BANK**  
 Project Manager: **DAWN WULF**  
 Sampled by: **DJR**

**Turnaround Request (in working days)**

(Check One)

Same Day     1 Day  
 2 Days       3 Days  
 Standard (7 Days) (TPH analysis 5 Days)  
 \_\_\_\_\_ (other)

Laboratory Number:

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA <u>(MTCA Metals)</u> (circle one)	TCLP Metals	HEM (oil and grease) 1664	DISS METALS	% Moisture	
						1	GP-1-11:10	9/22/11	0820	Soil	5			X	X	X							
2	GP-2-11:9	9/22/11	0855	Soil	5			X	X	X								X					
3	GP-3-11:13		0930		5			X	X	X								X					
4	GP-4-11:9.5		0935		5			X	X	X								X					
5	GP-5-11:13		1035		5			X	X	X								X					
6	GP-6-11:13		1120		5			X	X	X								X					
7	GP-7-11:14		1155		5			X	X	X								X					
8	GP-8-11:14		1235		5			X	X	X								X					
9	GP-9-11:13		1325		5			X	X	X								X					
10	GP-10-11:10		1350		5			X	X	X								X					

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	STW	9/23/11	0915	
<i>[Signature]</i>	Speedy	09/23	10:20	
<i>[Signature]</i>	<i>[Signature]</i>	11	10:45	
<i>[Signature]</i>	<i>[Signature]</i>	9/23/11	1045	
Reviewed/Date	Reviewed/Date	Chromatograms with final report <input type="checkbox"/>		

# Chain of Custody

Company: SHANNON & WILSON

Project Number: 21-1-16604-003

Project Name: KEY BANK

Project Manager: DAWN WULF

Sampled by: DJR

**Turnaround Request (in working days)**

(Check One)

Same Day     1 Day

2 Days     3 Days


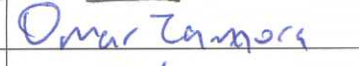


Standard (7 Days)  
(TPH analysis 5 Days)

\_\_\_\_\_ (other)

Laboratory Number:

**09-146**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
11	GP-11-11:10	9/22/11	1420	SOIL	5			X	X	X									X			5
12	GP-12-11:10	9/22/11	1445	SOIL	5			X	X	X									X			5

Signature	Company	Date	Time	Comments/Special Instructions
	STW	9/23/11	0815	
	Speedy	9/23	10:10	
	LI	LI	10:45	
	STW	9/23/11	1045	
Reviewed/Date	Reviewed/Date	Chromatograms with final report <input type="checkbox"/>		



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 18, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1109-146B

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on September 23, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: October 18, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-146B  
Project: 21-1-16604-003

### **Case Narrative**

Samples were collected on September 22, 2011 and received by the laboratory on September 23, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 18, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146B  
 Project: 21-1-16604-003

### PCBs by EPA 8082

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-1-11:10</b>					
Laboratory ID:	09-146-01					
Aroclor 1016	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1221	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1232	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1242	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1248	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1254	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1260	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>73</i>	<i>42-123</i>				
<b>Client ID:</b>	<b>GP-5-11:13</b>					
Laboratory ID:	09-146-05					
Aroclor 1016	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1221	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1232	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1242	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1248	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1254	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1260	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>76</i>	<i>42-123</i>				
<b>Client ID:</b>	<b>GP-6-11:13</b>					
Laboratory ID:	09-146-06					
Aroclor 1016	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1221	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1232	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1242	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1248	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1254	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
Aroclor 1260	<b>ND</b>	0.058	EPA 8082	10-9-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>66</i>	<i>42-123</i>				

Date of Report: October 18, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146B  
 Project: 21-1-16604-003

**PCBs by EPA 8082**

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-12-11:10</b>					
Laboratory ID:	09-146-12					
Aroclor 1016	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
Aroclor 1221	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
Aroclor 1232	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
Aroclor 1242	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
Aroclor 1248	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
Aroclor 1254	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
Aroclor 1260	<b>ND</b>	0.059	EPA 8082	10-9-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>74</i>	<i>42-123</i>				

Date of Report: October 18, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-146B  
 Project: 21-1-16604-003

**PCBs by EPA 8082  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1009S1					
Aroclor 1016	ND	0.050	EPA 8082	10-9-11	10-10-11	
Aroclor 1221	ND	0.050	EPA 8082	10-9-11	10-10-11	
Aroclor 1232	ND	0.050	EPA 8082	10-9-11	10-10-11	
Aroclor 1242	ND	0.050	EPA 8082	10-9-11	10-10-11	
Aroclor 1248	ND	0.050	EPA 8082	10-9-11	10-10-11	
Aroclor 1254	ND	0.050	EPA 8082	10-9-11	10-10-11	
Aroclor 1260	ND	0.050	EPA 8082	10-9-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	76		42-123			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
<b>MATRIX SPIKES</b>											
Laboratory ID:	09-146-12										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.422	0.436	0.500	0.500	ND	84	87	44-125	3	15	
<i>Surrogate:</i>											
DCB						70	75	42-123			



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z - The gasoline result is attributed to a single peak; refer to EPA 8260B results.
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



October 17, 2011

Mr. David Baumeister  
OnSite Environmental Inc.  
14648 NE 95th Street  
Redmond, WA 98052

Dear Mr. Baumeister,

On October 6th, 1 sample was received by our laboratory and assigned our laboratory project number 1110027. The project was identified as your Proj #21-1-16604-003 / Lab Ref #09-146. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan  
Laboratory Director



**CERTIFICATE OF ANALYSIS**

CLIENT:	OnSite Environmental Inc. 14648 NE 95th Street Redmond, WA 98052	DATE:	10/17/2011
CLIENT CONTACT:	David Baumeister	ALS JOB#:	1110027
CLIENT PROJECT:	Proj #21-1-16604-003 / Lab Ref #09-146	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	GP-3-11:13	DATE RECEIVED:	10/6/2011
		COLLECTION DATE:	9/22/2011 09:30
		WDOE ACCREDITATION:	C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS ANALYSIS	
						DATE	BY
Methyl T-Butyl Ether	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
Benzene	EPA-8021	0.53	0.50	1	MG/KG	10/07/2011	DLC
Toluene	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
Ethylbenzene	EPA-8021	6.1	0.50	1	MG/KG	10/07/2011	DLC
M & P- Xylenes	EPA-8021	11	0.50	1	MG/KG	10/07/2011	DLC
O-Xylene	EPA-8021	5.9	0.50	1	MG/KG	10/07/2011	DLC
C5-C6 Aliphatics	NWVPH	14	5.0	1	MG/KG	10/07/2011	DLC
>C6-C8 Aliphatics	NWVPH	200	5.0	1	MG/KG	10/07/2011	DLC
>C8-C10 Aliphatics	NWVPH	80	5.0	1	MG/KG	10/07/2011	DLC
>C10-C12 Aliphatics	NWVPH	190	5.0	1	MG/KG	10/07/2011	DLC
>C8-C10 Aromatics	NWVPH	230	5.0	1	MG/KG	10/07/2011	DLC
>C10-C12 Aromatics	NWVPH	250	5.0	1	MG/KG	10/07/2011	DLC
>C12-C13 Aromatics	NWVPH	57	5.0	1	MG/KG	10/07/2011	DLC
Hexane	NWVPH	4.3	0.20	1	MG/KG	10/07/2011	DLC

SURROGATE	METHOD	%REC	ANALYSIS ANALYSIS	
			DATE	BY
TFT	EPA-8021	96.0	10/07/2011	DLC
TFT - Aliphatic	NWVPH	89.0	10/07/2011	DLC
TFT - Aromatic	NWVPH	98.0	10/07/2011	DLC
TFT - Hexane	NWVPH	90.0	10/07/2011	DLC

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: OnSite Environmental Inc. DATE: 10/17/2011  
14648 NE 95th Street ALS SDG#: 1110027  
Redmond, WA 98052 WDOE ACCREDITATION: C601  
CLIENT CONTACT: David Baumeister  
CLIENT PROJECT: Proj #21-1-16604-003 / Lab Ref #09-146

LABORATORY BLANK RESULTS

MBLK-1072011 - Batch R75078 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
Benzene	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
Toluene	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
Ethylbenzene	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
M & P- Xylenes	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC
O-Xylene	EPA-8021	U	0.50	1	MG/KG	10/07/2011	DLC

MBLK-1072011 - Batch R75077 - Soil by NWVPH

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
C5-C6 Aliphatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
>C6-C8 Aliphatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
>C8-C10 Aliphatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
>C10-C12 Aliphatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
>C8-C10 Aromatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
>C10-C12 Aromatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
>C12-C13 Aromatics	NWVPH	U	5.0	1	MG/KG	10/07/2011	DLC
Hexane	NWVPH	U	0.20	1	MG/KG	10/07/2011	DLC



**CERTIFICATE OF ANALYSIS**

<b>CLIENT:</b>	OnSite Environmental Inc. 14648 NE 95th Street Redmond, WA 98052	<b>DATE:</b>	10/17/2011
<b>CLIENT CONTACT:</b>	David Baumeister	<b>ALS SDG#:</b>	1110027
<b>CLIENT PROJECT:</b>	Proj #21-1-16604-003 / Lab Ref #09-146	<b>WDOE ACCREDITATION:</b>	C601

**LABORATORY CONTROL SAMPLE RESULTS**

**ALS Test Batch ID: R75078 - Soil by EPA-8021**

<b>SPIKED COMPOUND</b>	<b>METHOD</b>	<b>%REC</b>	<b>RPD</b>	<b>QUAL</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Methyl T-Butyl Ether - BS	EPA-8021	89.0			10/07/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	94.0	5		10/07/2011	DLC
Benzene - BS	EPA-8021	107			10/07/2011	DLC
Benzene - BSD	EPA-8021	110	3		10/07/2011	DLC
Toluene - BS	EPA-8021	105			10/07/2011	DLC
Toluene - BSD	EPA-8021	108	3		10/07/2011	DLC
Ethylbenzene - BS	EPA-8021	101			10/07/2011	DLC
Ethylbenzene - BSD	EPA-8021	104	3		10/07/2011	DLC
M & P- Xylenes - BS	EPA-8021	103			10/07/2011	DLC
M & P- Xylenes - BSD	EPA-8021	107	4		10/07/2011	DLC
O-Xylene - BS	EPA-8021	105			10/07/2011	DLC
O-Xylene - BSD	EPA-8021	110	5		10/07/2011	DLC


**ALS Test Batch ID: R75077 - Soil by NWVPH**

<b>SPIKED COMPOUND</b>	<b>METHOD</b>	<b>%REC</b>	<b>RPD</b>	<b>QUAL</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
C5-C6 Aliphatics - BS	NWVPH	87.0			10/07/2011	DLC
C5-C6 Aliphatics - BSD	NWVPH	88.0	1		10/07/2011	DLC
>C6-C8 Aliphatics - BS	NWVPH	90.0			10/07/2011	DLC
>C6-C8 Aliphatics - BSD	NWVPH	92.0	2		10/07/2011	DLC
>C8-C10 Aliphatics - BS	NWVPH	90.0			10/07/2011	DLC
>C8-C10 Aliphatics - BSD	NWVPH	99.0	10		10/07/2011	DLC
>C10-C12 Aliphatics - BS	NWVPH	82.0			10/07/2011	DLC
>C10-C12 Aliphatics - BSD	NWVPH	98.0	18		10/07/2011	DLC
>C8-C10 Aromatics - BS	NWVPH	104			10/07/2011	DLC
>C8-C10 Aromatics - BSD	NWVPH	111	7		10/07/2011	DLC
>C10-C12 Aromatics - BS	NWVPH	92.0			10/07/2011	DLC
>C10-C12 Aromatics - BSD	NWVPH	107	15		10/07/2011	DLC
>C12-C13 Aromatics - BS	NWVPH	84.0			10/07/2011	DLC
>C12-C13 Aromatics - BSD	NWVPH	99.0	16		10/07/2011	DLC
Hexane - BS	NWVPH	86.0			10/07/2011	DLC
Hexane - BSD	NWVPH	85.0	1		10/07/2011	DLC



CERTIFICATE OF ANALYSIS

APPROVED BY



Laboratory Director

1110027



14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Subcontract Laboratory: ALS Environmental

Attention: Rick Bagan

8620 Holly Drive Everett, WA 98208

Phone Number: (425) 356-2600

Date/Time: \_\_\_\_\_

Turnaround Request:

1 Day 2 Day 3 Day

Standard

Other: \_\_\_\_\_

Laboratory Reference #: 09-146

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 21-1-16604-003

Project Name: \_\_\_\_\_

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analysts
1	GP-3-11:13	9/22/11	0930	S	1	VPH
<p><b>HOLD TIME</b> 10/6 0930</p>						
Signature		Company	Date	Time	Comments/Special Instructions	
Relinquished by:		OSE	10/6/11	1300	<p>13% moisture</p> <p><b>EDDs</b></p>	
Received by:		Speedy Comm	10/16/11	11		
Relinquished by:		Speedy Comm	10/16	134		
Received by:		AW	10/6/11	1:34		
Relinquished by:						
Received by:						







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

September 28, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1109-147

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on September 23, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: September 28, 2011  
Samples Submitted: September 23, 2011  
Laboratory Reference: 1109-147  
Project: 21-1-16604-003

### **Case Narrative**

Samples were collected on September 22, 2011 and received by the laboratory on September 23, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 28, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-147  
 Project: 21-1-16604-003

**NWTPH-Gx**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-3-11:GW</b>					
Laboratory ID:	09-147-01					
Gasoline	<b>54000</b>	2000	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	73-121				
<b>Client ID:</b>	<b>Trip Blank</b>					
Laboratory ID:	09-147-03					
Gasoline	<b>ND</b>	100	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	73-121				

Date of Report: September 28, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-147  
 Project: 21-1-16604-003

**NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0926W2					
Gasoline	<b>ND</b>	100	NWTPH-Gx	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	73-121				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	09-154-01							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				87	87	73-121		



Date of Report: September 28, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-147  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-3-11:GW</b>					
Laboratory ID:	09-147-01					
CFC-12	ND	10	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	50	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	10	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	10	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	50	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	10	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	10	EPA 8260	9-26-11	9-26-11	
Acetone	ND	250	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	50	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	10	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	50	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	10	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	10	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	10	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	100	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	10	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	44	10	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	250	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	10	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	10	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	10	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	10	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	10	EPA 8260	9-26-11	9-26-11	
Benzene	ND	10	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	10	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	10	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	10	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	10	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	10	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	50	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	10	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	100	EPA 8260	9-26-11	9-26-11	
Toluene	150	50	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	10	EPA 8260	9-26-11	9-26-11	

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**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-3-11:GW</b>					
Laboratory ID:	09-147-01					
1,1,2-Trichloroethane	ND	10	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	11	10	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	10	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	100	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	10	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	10	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	1100	10	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	3000	20	EPA 8260	9-26-11	9-26-11	
o-Xylene	990	10	EPA 8260	9-26-11	9-26-11	
Styrene	ND	10	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	50	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	95	10	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	10	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	130	10	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	10	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	10	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	260	10	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	10	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	910	10	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	14	10	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	20	10	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	10	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	10	EPA 8260	9-26-11	9-26-11	
Naphthalene	320	50	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	10	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>79</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>81</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>78</i>	<i>65-120</i>				

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 Laboratory Reference: 1109-147  
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**VOLATILES by EPA 8260B**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>Trip Blank</b>					
Laboratory ID:	09-147-03					
CFC-12	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	1.0	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.20	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	1.0	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Acetone	ND	5.0	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	1.0	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.20	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	1.0	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	2.0	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	5.0	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	1.0	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260	9-26-11	9-26-11	
Toluene	ND	1.0	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.20	EPA 8260	9-26-11	9-26-11	

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**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>Trip Blank</b>					
Laboratory ID:	09-147-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	2.0	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.40	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	1.0	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.20	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	1.0	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>83</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>83</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>81</i>	<i>65-120</i>				

Date of Report: September 28, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-147  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0926W1					
CFC-12	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chloromethane	ND	1.0	EPA 8260	9-26-11	9-26-11	
Vinyl Chloride	ND	0.20	EPA 8260	9-26-11	9-26-11	
Bromomethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chloroethane	ND	1.0	EPA 8260	9-26-11	9-26-11	
CFC-11	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Acetone	ND	5.0	EPA 8260	9-26-11	9-26-11	
Methyl Iodide	ND	1.0	EPA 8260	9-26-11	9-26-11	
Carbon Disulfide	ND	0.20	EPA 8260	9-26-11	9-26-11	
Methylene Chloride	ND	1.0	EPA 8260	9-26-11	9-26-11	
Trans-1,2-Dichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Methyl t-Butyl Ether	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Vinyl Acetate	ND	2.0	EPA 8260	9-26-11	9-26-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Cis-1,2-Dichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Butanone	ND	5.0	EPA 8260	9-26-11	9-26-11	
Bromochloromethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chloroform	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Benzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Trichloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Dibromomethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Dichlorobromomethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Chloroethylvinylether	ND	1.0	EPA 8260	9-26-11	9-26-11	
Cis-1,3-Dichloropropene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260	9-26-11	9-26-11	
Toluene	ND	1.0	EPA 8260	9-26-11	9-26-11	
Trans-1,3-Dichloropropene	ND	0.20	EPA 8260	9-26-11	9-26-11	

Date of Report: September 28, 2011  
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 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0926W1				
1,1,2-Trichloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Tetrachloroethene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Hexanone	ND	2.0	EPA 8260	9-26-11	9-26-11	
Dibromochloromethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Ethylene dibromide	ND	0.20	EPA 8260	9-26-11	9-26-11	
Chlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
Ethylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
m,p-Xylene	ND	0.40	EPA 8260	9-26-11	9-26-11	
o-Xylene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Styrene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Bromoform	ND	1.0	EPA 8260	9-26-11	9-26-11	
Isopropylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Bromobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	9-26-11	9-26-11	
n-Propylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
2-Chlorotoluene	ND	0.20	EPA 8260	9-26-11	9-26-11	
4-Chlorotoluene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
tert-Butylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
sec-Butylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
p-Isopropyltoluene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
n-Butylbenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	9-26-11	9-26-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	9-26-11	9-26-11	
Naphthalene	ND	1.0	EPA 8260	9-26-11	9-26-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	9-26-11	9-26-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>84</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>83</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>81</i>	<i>65-120</i>				

Date of Report: September 28, 2011  
 Samples Submitted: September 23, 2011  
 Laboratory Reference: 1109-147  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0926W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.50	9.32	10.0	10.0	95	93	70-130	2	11	
Benzene	9.54	9.31	10.0	10.0	95	93	75-123	2	8	
Trichloroethene	10.5	10.1	10.0	10.0	105	101	80-113	4	9	
Toluene	10.0	9.69	10.0	10.0	100	97	80-113	3	8	
Chlorobenzene	10.5	10.0	10.0	10.0	105	100	80-111	5	8	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					82	81	68-120			
<i>Toluene-d8</i>					84	79	73-120			
<i>Benzene, 1-bromo-4-fluoro-</i>					83	78	65-120			



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

November 2, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-010  
Laboratory Reference No. 1110-150

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on October 21, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "D.B.", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: November 2, 2011  
Samples Submitted: October 21, 2011  
Laboratory Reference: 1110-150  
Project: 21-1-16604-010

### **Case Narrative**

Samples were collected on October 21, 2011 and received by the laboratory on October 21, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**HALOGENATED VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>STKP:1</b>					
Laboratory ID:	10-150-01					
CFC-12	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Chloromethane	ND	0.0027	EPA 8260	10-25-11	10-25-11	
Vinyl Chloride	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Bromomethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Chloroethane	ND	0.0027	EPA 8260	10-25-11	10-25-11	
CFC-11	0.0020	0.00054	EPA 8260	10-25-11	10-25-11	
1,1-Dichloroethene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Methyl Iodide	ND	0.0027	EPA 8260	10-25-11	10-25-11	
Methylene Chloride	0.0077	0.0027	EPA 8260	10-25-11	10-25-11	H
Trans-1,2-Dichloroethene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,1-Dichloroethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
2,2-Dichloropropane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Cis-1,2-Dichloroethene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Bromochloromethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Chloroform	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,1,1-Trichloroethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Carbon Tetrachloride	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,1-Dichloropropene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,2-Dichloroethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Trichloroethene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,2-Dichloropropane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Dibromomethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Dichlorobromomethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
2-Chloroethylvinylether	ND	0.0027	EPA 8260	10-25-11	10-25-11	
Cis-1,3-Dichloropropene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Trans-1,3-Dichloropropene	ND	0.00054	EPA 8260	10-25-11	10-25-11	

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**HALOGENATED VOLATILES by EPA 8260B**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>STKP:1</b>					
Laboratory ID:	10-150-01					
1,1,2-Trichloroethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Tetrachloroethene	0.017	0.00054	EPA 8260	10-25-11	10-25-11	
1,3-Dichloropropane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Dibromochloromethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Ethylene dibromide	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Chlorobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,1,1,2-Tetrachloroethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Bromoform	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Bromobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,1,2,2-Tetrachloroethane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,2,3-Trichloropropane	ND	0.00054	EPA 8260	10-25-11	10-25-11	
2-Chlorotoluene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
4-Chlorotoluene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,3-Dichlorobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,4-Dichlorobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,2-Dichlorobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
1,2-Dibromo-3-chloropropane	ND	0.0027	EPA 8260	10-25-11	10-25-11	
1,2,4-Trichlorobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
Hexachlorobutadiene	ND	0.0027	EPA 8260	10-25-11	10-25-11	
1,2,3-Trichlorobenzene	ND	0.00054	EPA 8260	10-25-11	10-25-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>86</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>91</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>83</i>	<i>55-121</i>				

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**HALOGENATED VOLATILES by EPA 8260B  
 METHOD BLANK QUALITY CONTROL**

page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025S1					
CFC-12	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Chloromethane	ND	0.0050	EPA 8260	10-25-11	10-25-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Bromomethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Chloroethane	ND	0.0050	EPA 8260	10-25-11	10-25-11	
CFC-11	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Methyl Iodide	ND	0.0050	EPA 8260	10-25-11	10-25-11	
Methylene Chloride	ND	0.0050	EPA 8260	10-25-11	10-25-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Chloroform	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Trichloroethene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Dibromomethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	10-25-11	10-25-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-25-11	10-25-11	

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**HALOGENATED VOLATILES by EPA 8260B  
 METHOD BLANK QUALITY CONTROL**

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Tetrachloroethene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Bromoform	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Bromobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-25-11	10-25-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	10-25-11	10-25-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	10-25-11	10-25-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-25-11	10-25-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>93</i>	<i>55-121</i>				

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**HALOGENATED VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1025S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0460</b>	<b>0.0438</b>	0.0500	0.0500	92	88	70-130	5	19	
Benzene	<b>0.0443</b>	<b>0.0442</b>	0.0500	0.0500	89	88	70-125	0	15	
Trichloroethene	<b>0.0456</b>	<b>0.0442</b>	0.0500	0.0500	91	88	70-122	3	14	
Toluene	<b>0.0447</b>	<b>0.0479</b>	0.0500	0.0500	89	96	73-120	7	16	
Chlorobenzene	<b>0.0429</b>	<b>0.0435</b>	0.0500	0.0500	86	87	74-109	1	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					88	77	63-127			
<i>Toluene-d8</i>					93	95	65-129			
<i>Benzene, 1-bromo-4-fluoro-</i>					86	85	55-121			



Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**TCLP HALOGENATED VOLATILES**  
**EPA 1311/8260B**  
 page 1 of 2

Matrix: TCLP Extract  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>STKP:1</b>					
Laboratory ID:	10-150-01					
CFC-12	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chloromethane	ND	10	EPA 8260	10-25-11	11-1-11	
Vinyl Chloride	ND	2.0	EPA 8260	10-25-11	11-1-11	
Bromomethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chloroethane	ND	10	EPA 8260	10-25-11	11-1-11	
CFC-11	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1-Dichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Methyl Iodide	ND	10	EPA 8260	10-25-11	11-1-11	
Methylene Chloride	ND	10	EPA 8260	10-25-11	11-1-11	
Trans-1,2-Dichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1-Dichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
2,2-Dichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Cis-1,2-Dichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Bromochloromethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chloroform	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1,1-Trichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Carbon Tetrachloride	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1-Dichloropropene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Trichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Dibromomethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Dichlorobromomethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
2-Chloroethylvinylether	ND	10	EPA 8260	10-25-11	11-1-11	
Cis-1,3-Dichloropropene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Trans-1,3-Dichloropropene	ND	2.0	EPA 8260	10-25-11	11-1-11	

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**TCLP HALOGENATED VOLATILES**  
**EPA 1311/8260B**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>STKP:1</b>					
Laboratory ID:	10-150-01					
1,1,2-Trichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Tetrachloroethene	4.4	2.0	EPA 8260	10-25-11	11-1-11	
1,3-Dichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Dibromochloromethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Ethylene dibromide	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1,1,2-Tetrachloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Bromoform	ND	10	EPA 8260	10-25-11	11-1-11	
Bromobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1,2,2-Tetrachloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2,3-Trichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
2-Chlorotoluene	ND	2.0	EPA 8260	10-25-11	11-1-11	
4-Chlorotoluene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,3-Dichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,4-Dichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dibromo-3-chloropropane	ND	10	EPA 8260	10-25-11	11-1-11	
1,2,4-Trichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Hexachlorobutadiene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>83</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>85</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>86</i>	<i>65-120</i>				

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**TCLP HALOGENATED VOLATILES**  
**EPA 1311/8260B**  
**METHOD BLANK QUALITY CONTROL**  
 page 1 of 2

Matrix: TCLP Extract  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025T2					
CFC-12	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chloromethane	ND	10	EPA 8260	10-25-11	11-1-11	
Vinyl Chloride	ND	2.0	EPA 8260	10-25-11	11-1-11	
Bromomethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chloroethane	ND	10	EPA 8260	10-25-11	11-1-11	
CFC-11	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1-Dichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Methyl Iodide	ND	10	EPA 8260	10-25-11	11-1-11	
Methylene Chloride	ND	10	EPA 8260	10-25-11	11-1-11	
Trans-1,2-Dichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1-Dichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
2,2-Dichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Cis-1,2-Dichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Bromochloromethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chloroform	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1,1-Trichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Carbon Tetrachloride	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1-Dichloropropene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Trichloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Dibromomethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Dichlorobromomethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
2-Chloroethylvinylether	ND	10	EPA 8260	10-25-11	11-1-11	
Cis-1,3-Dichloropropene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Trans-1,3-Dichloropropene	ND	2.0	EPA 8260	10-25-11	11-1-11	

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**TCLP HALOGENATED VOLATILES**  
**EPA 1311/8260B**  
**METHOD BLANK QUALITY CONTROL**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1025T2					
1,1,2-Trichloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Tetrachloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,3-Dichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Dibromochloromethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Ethylene dibromide	ND	2.0	EPA 8260	10-25-11	11-1-11	
Chlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1,1,2-Tetrachloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
Bromoform	ND	10	EPA 8260	10-25-11	11-1-11	
Bromobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,1,2,2-Tetrachloroethane	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2,3-Trichloropropane	ND	2.0	EPA 8260	10-25-11	11-1-11	
2-Chlorotoluene	ND	2.0	EPA 8260	10-25-11	11-1-11	
4-Chlorotoluene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,3-Dichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,4-Dichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2-Dibromo-3-chloropropane	ND	10	EPA 8260	10-25-11	11-1-11	
1,2,4-Trichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
Hexachlorobutadiene	ND	2.0	EPA 8260	10-25-11	11-1-11	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260	10-25-11	11-1-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>87</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>87</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>84</i>	<i>65-120</i>				

Date of Report: November 2, 2011  
 Samples Submitted: October 21, 2011  
 Laboratory Reference: 1110-150  
 Project: 21-1-16604-010

**TCLP HALOGENATED VOLATILES**  
**EPA 1311/8260B**  
**SB/SBD QUALITY CONTROL**

Matrix: TCLP Extract  
 Units: ug/L

Analyte	Result		Spike Level		Percent		Recovery	RPD		Flags
					Recovery		Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1101T1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.33	9.49	10.0	10.0	93	95	70-130	2	11	
Benzene	8.48	8.90	10.0	10.0	85	89	75-123	5	8	
Trichloroethene	9.13	9.19	10.0	10.0	91	92	80-113	1	9	
Toluene	8.86	9.32	10.0	10.0	89	93	80-113	5	8	
Chlorobenzene	9.37	9.59	10.0	10.0	94	96	80-111	2	8	
<i>Surrogate:</i>										
Dibromofluoromethane					75	77	68-120			
Toluene-d8					80	80	73-120			
Benzene, 1-bromo-4-fluoro-					76	79	65-120			

Date of Report: November 2, 2011  
Samples Submitted: October 21, 2011  
Laboratory Reference: 1110-150  
Project: 21-1-16604-010

**% MOISTURE**

Date Analyzed: 10-25-11

Client ID	Lab ID	% Moisture
STKP:1	10-150-01	12



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference

# Chain of Custody

Company: Shannon & Wilson

Project Number: 21-1-16604-010

Project Name: Former Key Bank

Project Manager: DBW

Sampled by: EVP

Turnaround Request (in working days)

(Check One)

Same Day     1 Day

2 Days     3 Days

Standard (7 Days)  
(TPH analysis 5 Days)

\_\_\_\_\_ (other)

Laboratory Number: **10-150**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total PCRA / MTCA Metals (circle one)	TCLP Metals <del>Cancelled</del> <sup>D13</sup>	HEM (oil and grease) 1664	% Moisture	
<u>1</u>	<u>STKP:1</u>	<u>10/21/11</u>	<u>0925</u>	<u>Soil</u>	<u>5</u>						<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>S&amp;W</u>	<u>10/21/11</u>	<u>1230</u>	<u>send results to DBW dbw@shawnwil.com</u> <u>⊗ Added 10/25 177-DB (STA)</u>
<u>[Signature]</u>	<u>Speedy messenger</u>	<u>10/21/11</u>	<u>1257</u>	
<u>[Signature]</u>	<u>Speedy messenger</u>	<u>10/21/11</u>	<u>2:15</u>	
<u>[Signature]</u>	<u>OnSite Env</u>	<u>10/21/11</u>	<u>1415</u>	
Reviewed/Date	Reviewed/Date	Chromatograms with final report <input type="checkbox"/>		



# Chain of Custody

Company: **Shannon & Wilson**  
 Project Number: **21-1-16604-010**  
 Project Name: **Former Key Bank**  
 Project Manager: **DBW**  
 Sampled by: **EVP**

**Turnaround Request (in working days)**

(Check One)

Same Day     1 Day

2 Days     3 Days

Standard (7 Days)  
 (TPH analysis 5 Days)

\_\_\_\_\_ (other)

**Laboratory Number: 10-150**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
1	STKP: 1	10/21/11	0925	Soil	5																	

Signature	Company	Date	Time	Comments/Special Instructions
	S&W	10/21/11	1230	Send results to DBW dbw@stanwil.com
	Speedy Messenger	10/21/11	1257	
	Speedy Messenger	10/21/11	2:15	
	OnSite Env	10/21/11	1415	
Reviewed/Date	Reviewed/Date	Chromatograms with final report <input type="checkbox"/>		



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 14, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1110-053

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on October 7, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: October 14, 2011  
Samples Submitted: October 7, 2011  
Laboratory Reference: 1110-053  
Project: 21-1-16604-003

### **Case Narrative**

Samples were collected on October 6, 2011 and received by the laboratory on October 7, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx and Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**NWTPH-Dx**  
 (with acid/silica gel clean-up)

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW1-11:13</b>					
Laboratory ID:	10-053-01					
Diesel Range Organics	<b>ND</b>	27	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	54	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	112	50-150				

<b>Client ID:</b>	<b>SW-MW1-11:25</b>					
Laboratory ID:	10-053-02					
Diesel Range Organics	<b>ND</b>	29	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	58	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	107	50-150				

<b>Client ID:</b>	<b>SW-MW2-11:16.5</b>					
Laboratory ID:	10-053-05					
Diesel Range Organics	<b>ND</b>	29	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	58	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

<b>Client ID:</b>	<b>SW-MW2-11:25</b>					
Laboratory ID:	10-053-07					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	61	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**NWTPH-Dx  
 QUALITY CONTROL  
 (with acid/silica gel clean-up)**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1012S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	116	50-150				

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>						
Laboratory ID:	10-053-01					
	ORIG	DUP				
Diesel Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
Lube Oil Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
<i>Surrogate:</i>						
<i>o-Terphenyl</i>			112 123	50-150		

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW1-11:13</b>					
Laboratory ID:	10-053-01					
CFC-12	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0058	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Acetone	0.0092	0.0058	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	0.0014	0.0012	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0058	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW1-11:13</b>					
Laboratory ID:	10-053-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0023	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	0.0030	0.0012	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	0.0040	0.0012	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	0.0012	0.0012	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>108</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW1-11:25</b>					
Laboratory ID:	10-053-02					
CFC-12	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0058	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Acetone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0058	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW1-11:25</b>					
Laboratory ID:	10-053-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0023	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0058	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>103</i>	<i>55-121</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SW-MW2-11:5</b>					
<b>Laboratory ID:</b>	10-053-03					
CFC-12	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0044	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0044	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0044	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0044	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0044	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.00089	EPA 8260	10-10-11	10-10-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:5</b>					
Laboratory ID:	10-053-03					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0044	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>100</i>	<i>55-121</i>				

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SW-MW2-11:10</b>					
<b>Laboratory ID:</b>	10-053-04					
CFC-12	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0060	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0060	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0060	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0060	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0060	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0012	EPA 8260	10-10-11	10-10-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:10</b>					
Laboratory ID:	10-053-04					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0060	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>107</i>	<i>55-121</i>				

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:16.5</b>					
Laboratory ID:	10-053-05					
CFC-12	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0075	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Acetone	0.025	0.0075	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	0.0018	0.0015	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0075	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0015	EPA 8260	10-10-11	10-10-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:16.5</b>					
Laboratory ID:	10-053-05					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0030	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0075	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0075	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>106</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SW-MW2-11:20</b>					
Laboratory ID:	10-053-06					
CFC-12	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0084	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0084	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0084	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0084	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0084	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0017	EPA 8260	10-10-11	10-10-11	



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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:20</b>					
Laboratory ID:	10-053-06					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0084	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0084	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0017	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>99</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
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 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:25</b>					
Laboratory ID:	10-053-07					
CFC-12	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0070	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Acetone	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0070	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0014	EPA 8260	10-10-11	10-10-11	

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**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW2-11:25</b>					
Laboratory ID:	10-053-07					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0028	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0070	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0070	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>106</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1010S2					
CFC-12	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0050	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Acetone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0050	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1010S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0020	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>107</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1010S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0597</b>	<b>0.0611</b>	0.0500	0.0500	119	122	70-130	2	19	
Benzene	<b>0.0517</b>	<b>0.0532</b>	0.0500	0.0500	103	106	70-125	3	15	
Trichloroethene	<b>0.0528</b>	<b>0.0521</b>	0.0500	0.0500	106	104	70-122	1	14	
Toluene	<b>0.0518</b>	<b>0.0508</b>	0.0500	0.0500	104	102	73-120	2	16	
Chlorobenzene	<b>0.0525</b>	<b>0.0505</b>	0.0500	0.0500	105	101	74-109	4	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>108</i>	<i>112</i>	<i>63-127</i>			
<i>Toluene-d8</i>					<i>106</i>	<i>109</i>	<i>65-129</i>			
<i>Benzene, 1-bromo-4-fluoro-</i>					<i>106</i>	<i>108</i>	<i>55-121</i>			

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date	Date	Flags
				Prepared	Analyzed	
Lab ID:	10-053-01					
<b>Client ID:</b>	<b>SW-MW1-11:13</b>					
Arsenic	ND	11	6010B	10-11-11	10-12-11	
Cadmium	ND	0.54	6010B	10-11-11	10-12-11	
Chromium	33	0.54	6010B	10-11-11	10-12-11	
Lead	ND	5.4	6010B	10-11-11	10-12-11	
Mercury	ND	0.27	7471A	10-11-11	10-11-11	

Lab ID:	10-053-02					
<b>Client ID:</b>	<b>SW-MW1-11:25</b>					
Arsenic	ND	12	6010B	10-11-11	10-12-11	
Cadmium	ND	0.58	6010B	10-11-11	10-12-11	
Chromium	28	0.58	6010B	10-11-11	10-12-11	
Lead	ND	5.8	6010B	10-11-11	10-12-11	
Mercury	ND	0.29	7471A	10-11-11	10-11-11	

Lab ID:	10-053-05					
<b>Client ID:</b>	<b>SW-MW2-11:16.5</b>					
Arsenic	ND	12	6010B	10-11-11	10-12-11	
Cadmium	ND	0.58	6010B	10-11-11	10-12-11	
Chromium	30	0.58	6010B	10-11-11	10-12-11	
Lead	ND	5.8	6010B	10-11-11	10-12-11	
Mercury	ND	0.29	7471A	10-11-11	10-11-11	

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	10-053-07					
<b>Client ID:</b>	<b>SW-MW2-11:25</b>					
Arsenic	<b>ND</b>	12	6010B	10-11-11	10-12-11	
Cadmium	<b>ND</b>	0.61	6010B	10-11-11	10-12-11	
Chromium	<b>35</b>	0.61	6010B	10-11-11	10-12-11	
Lead	<b>ND</b>	6.1	6010B	10-11-11	10-12-11	
Mercury	<b>ND</b>	0.3	7471A	10-11-11	10-11-11	



Date of Report: October 14, 2011  
Samples Submitted: October 7, 2011  
Laboratory Reference: 1110-053  
Project: 21-1-16604-003

**TOTAL METALS  
EPA 6010B/7471A  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-11-11  
Date Analyzed: 10-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1011S1&MB1011S2

Analyte	Method	Result	PQL
Arsenic	6010B	<b>ND</b>	10
Cadmium	6010B	<b>ND</b>	0.50
Chromium	6010B	<b>ND</b>	0.50
Lead	6010B	<b>ND</b>	5.0
Mercury	7471A	<b>ND</b>	0.25

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-11-11

Date Analyzed: 10-11-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 10-058-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	<b>ND</b>	<b>ND</b>	NA	10	
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	
Chromium	<b>27.5</b>	<b>27.7</b>	1	0.50	
Lead	<b>19.5</b>	<b>20.1</b>	3	5.0	
Mercury	<b>ND</b>	<b>ND</b>	NA	0.25	

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A  
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-11-11

Date Analyzed: 10-11-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 10-058-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	<b>97.8</b>	98	<b>99.1</b>	99	1	
Cadmium	50.0	<b>48.2</b>	96	<b>48.5</b>	97	1	
Chromium	100	<b>116</b>	89	<b>117</b>	90	1	
Lead	250	<b>246</b>	91	<b>248</b>	92	1	
Mercury	0.500	<b>0.468</b>	94	<b>0.474</b>	95	1	

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

### NWTPH-Gx

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW1-11:13</b>					
Laboratory ID:	10-053-01					
Gasoline	<b>ND</b>	5.6	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-124				
<b>Client ID:</b>	<b>SW-MW1-11:25</b>					
Laboratory ID:	10-053-02					
Gasoline	<b>ND</b>	6.3	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-124				
<b>Client ID:</b>	<b>SW-MW2-11:16.5</b>					
Laboratory ID:	10-053-05					
Gasoline	<b>ND</b>	6.1	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	102	68-124				
<b>Client ID:</b>	<b>SW-MW2-11:25</b>					
Laboratory ID:	10-053-07					
Gasoline	<b>ND</b>	6.3	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	102	68-124				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-053  
 Project: 21-1-16604-003

**NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1013S1					
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	68-124				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-053-01							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				100	99	68-124		

Date of Report: October 14, 2011  
Samples Submitted: October 7, 2011  
Laboratory Reference: 1110-053  
Project: 21-1-16604-003

**% MOISTURE**

Date Analyzed: 10-10&11-11

Client ID	Lab ID	% Moisture
SW-MW1-11:13	10-053-01	7
SW-MW1-11:25	10-053-02	13
SW-MW2-11:5	10-053-03	10
SW-MW2-11:10	10-053-04	8
SW-MW2-11:16.5	10-053-05	13
SW-MW2-11:20	10-053-06	12
SW-MW2-11:25	10-053-07	18



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference

# Chain of Custody

Company: <b>SHANNON &amp; WILSON</b> Project Number: <b>21-1-16604-003</b> Project Name: <b>ST-KEY BANK</b> Project Manager: <b>DAWN</b> Sampled by: <b>DJR</b>	Turnaround Request (in working days) (Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Standard (7 working days) (TPH analysis 5 working days) <input type="checkbox"/> _____ (other)	Laboratory Number: <b>10-053</b> Requested Analysis <table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <tr> <td>NWTPH-HCID</td><td>NWTPH-Gx/BTEX</td><td>NWTPH-DX</td><td>Volatiles by 8260B</td><td>Halogenated Volatiles by 8260B</td><td>Semivolatiles by 8270D</td><td>PAHs by 8270D / SIM</td><td>PCBs by 8082</td><td>Pesticides by 8081A</td><td>Herbicides by 8151A</td><td>Total RCRA Metals (8)</td><td>TCLP Metals</td><td>HEM by 1664</td><td>META 5 METAL</td><td>MWTPH-GX</td><td>% Moisture</td> </tr> </table>	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-DX	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	META 5 METAL	MWTPH-GX	% Moisture
NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-DX	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	META 5 METAL	MWTPH-GX	% Moisture			

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-DX	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	META 5 METAL	MWTPH-GX	% Moisture	
1	SW-MW1-11:13	10/6/2011	0835	SOIL	5			X	X										X	X		X
2	SW-MW1-11:25	10/6/2011	1020	SOIL	6			X	X										X	X		
3	SW-MW2-11:5	10/6/2011	1415	SOIL	4					X												
4	SW-MW2-11:10	10/6/2011	1422	SOIL	4					X												
5	SW-MW2-11:16.5	10/6/2011	1431	SOIL	6			X	X										X	X		
6	SW-MW2-11:20	10/6/2011	1440	SOIL	4					X										X	X	
7	SW-MW2-11:25	10/6/2011	1450	SOIL	6			X	X										X	X		

	Signature	Company	Date	Time	Comments/Special Instructions:
Relinquished by		STW	10/7/11	0730	
Received by		Speedy	10/7/11	8:15	
Relinquished by			"	11:15	
Received by		OSI	10/7/11	1115	
Relinquished by					
Received by					
Reviewed by/Date		Reviewed by/Date	Chromatograms with final report <input type="checkbox"/>		



# Chain of Custody

Company: <u>STW</u> Project Number: <u>21-1-16604-003</u> Project Name: <u>ST-KEY BANK</u> Project Manager: <u>DAWN WULF</u> Sampled by: <u>DJR</u>	<b>Turnaround Request</b> (in working days)  (Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Standard (7 working days) (TPH analysis 5 working days)  <input type="checkbox"/> _____ (other)	<b>Laboratory Number:</b>  <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="14" style="text-align: center;">Requested Analysis</th> </tr> <tr> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> <td style="width:3.3%;"></td> </tr> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-HCID</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-GxBTEX</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-Dx</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Volatiles by 8260B</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Halogenated Volatiles by 8260B</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Semivolatiles by 8270D</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">PAHs by 8270D / SIM</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">PCBs by 8082</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Pesticides by 8081A</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Herbicides by 8151A</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Total RCRA Metals (8)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP Metals</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">HEM by 1664</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">METALS</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-GX</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">% Moisture</td> </tr> <tr> <td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	Requested Analysis																													NWTPH-HCID	NWTPH-GxBTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	METALS	TPH-GX	% Moisture					X														X	X									X	X							X														X	X									X	X							X																X																X											
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Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-GxBTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	METALS	TPH-GX	% Moisture	
	SW-MW3-11: 5	10/7/11	0858	SOIL						X												
	SW-MW3-11: 10	↓	0905					X	X										X	X		
	SW-MW3-11: 15	↓	0915							X												
	SW-MW3-11: 18	↓	0918					X	X										X	X		
	SW-MW3-11: 20	↓	0922							X												
	SW-MW3-11: 25	↓	0931							X												
	SW-MW3-11: 30	↓	0945							X												
	SW-MW3-11: 35	↓	1005							X												

Signature	Company	Date	Time	Comments/Special Instructions:
Relinquished by: <u>[Signature]</u>	STW	10/7/11	1345	
Received by: <u>[Signature]</u>	STW	10/7/11	1400	
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Reviewed by/Date:	Reviewed by/Date:	Chromatograms with final report <input type="checkbox"/>		



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 14, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1110-057

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on October 7, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB' followed by a flourish.

David Baumeister  
Project Manager

Enclosures

Date of Report: October 14, 2011  
Samples Submitted: October 7, 2011  
Laboratory Reference: 1110-057  
Project: 21-1-16604-003

### **Case Narrative**

Samples were collected on October 7, 2011 and received by the laboratory on October 7, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx and Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**NWTPH-Dx**  
**(with acid/silica gel clean-up)**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:10</b>					
Laboratory ID:	10-057-02					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>101</i>	<i>50-150</i>				
<b>Client ID:</b>	<b>SW-MW3-11:18</b>					
Laboratory ID:	10-057-04					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	59	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>101</i>	<i>50-150</i>				

Date of Report: October 14, 2011  
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 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**NWTPH-Dx  
 QUALITY CONTROL  
 (with acid/silica gel clean-up)**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1012S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	10-12-11	10-12-11	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	10-12-11	10-12-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	116	50-150				

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>						
Laboratory ID:	10-053-01					
	ORIG	DUP				
Diesel Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
Lube Oil Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
<i>Surrogate:</i>						
<i>o-Terphenyl</i>			112 123	50-150		

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:5</b>					
Laboratory ID:	10-057-01					
CFC-12	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0066	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0066	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0066	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0066	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0066	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0013	EPA 8260	10-10-11	10-10-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:5</b>					
Laboratory ID:	10-057-01					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	0.014	0.0013	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0066	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>105</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
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**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:10</b>					
Laboratory ID:	10-057-02					
CFC-12	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0052	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Acetone	0.0093	0.0052	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	0.0028	0.0010	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0052	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Trichloroethene	0.0032	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:10</b>					
Laboratory ID:	10-057-02					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	0.025	0.0010	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0021	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0052	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>101</i>	<i>55-121</i>				

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 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:18</b>					
Laboratory ID:	10-057-04					
CFC-12	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0068	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Acetone	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0068	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0014	EPA 8260	10-10-11	10-10-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:18</b>					
Laboratory ID:	10-057-04					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	0.096	0.0014	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0027	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0068	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>101</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:25</b>					
Laboratory ID:	10-057-06					
CFC-12	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0067	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0067	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0067	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0067	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0067	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0013	EPA 8260	10-10-11	10-10-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:25</b>					
Laboratory ID:	10-057-06					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	0.048	0.0013	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0067	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0067	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>105</i>	<i>55-121</i>				

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:30</b>					
Laboratory ID:	10-057-07					
CFC-12	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0080	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0080	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0080	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0080	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0080	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0016	EPA 8260	10-10-11	10-10-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:30</b>					
Laboratory ID:	10-057-07					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	0.038	0.0016	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0080	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0080	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>105</i>	<i>55-121</i>				

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SW-MW3-11:35</b>					
<b>Laboratory ID:</b>	10-057-08					
CFC-12	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Chloromethane	ND	0.013	EPA 8260	10-10-11	10-11-11	
Vinyl Chloride	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Bromomethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Chloroethane	ND	0.013	EPA 8260	10-10-11	10-11-11	
CFC-11	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,1-Dichloroethene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Methyl Iodide	ND	0.013	EPA 8260	10-10-11	10-11-11	
Methylene Chloride	ND	0.013	EPA 8260	10-10-11	10-11-11	
Trans-1,2-Dichloroethene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,1-Dichloroethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
2,2-Dichloropropane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Cis-1,2-Dichloroethene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Bromochloromethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Chloroform	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,1,1-Trichloroethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Carbon Tetrachloride	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,1-Dichloropropene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,2-Dichloroethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Trichloroethene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,2-Dichloropropane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Dibromomethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Dichlorobromomethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
2-Chloroethylvinylether	ND	0.013	EPA 8260	10-10-11	10-11-11	
Cis-1,3-Dichloropropene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Trans-1,3-Dichloropropene	ND	0.0025	EPA 8260	10-10-11	10-11-11	



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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-MW3-11:35</b>					
Laboratory ID:	10-057-08					
1,1,2-Trichloroethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Tetrachloroethene	0.033	0.0025	EPA 8260	10-10-11	10-11-11	
1,3-Dichloropropane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Dibromochloromethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Ethylene dibromide	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Chlorobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,1,1,2-Tetrachloroethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Bromoform	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Bromobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,1,2,2-Tetrachloroethane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,2,3-Trichloropropane	ND	0.0025	EPA 8260	10-10-11	10-11-11	
2-Chlorotoluene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
4-Chlorotoluene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,3-Dichlorobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,4-Dichlorobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,2-Dichlorobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
1,2-Dibromo-3-chloropropane	ND	0.013	EPA 8260	10-10-11	10-11-11	
1,2,4-Trichlorobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
Hexachlorobutadiene	ND	0.013	EPA 8260	10-10-11	10-11-11	
1,2,3-Trichlorobenzene	ND	0.0025	EPA 8260	10-10-11	10-11-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>106</i>	<i>55-121</i>				

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**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1010S2					
CFC-12	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloromethane	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloroethane	ND	0.0050	EPA 8260	10-10-11	10-10-11	
CFC-11	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Acetone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Methyl Iodide	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Carbon Disulfide	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methylene Chloride	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Vinyl Acetate	ND	0.0050	EPA 8260	10-10-11	10-10-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Butanone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chloroform	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Benzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Trichloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Dibromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Toluene	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-10-11	10-10-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1010S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Tetrachloroethene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Hexanone	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Ethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
m,p-Xylene	ND	0.0020	EPA 8260	10-10-11	10-10-11	
o-Xylene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Styrene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromoform	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Isopropylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Bromobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-10-11	10-10-11	
n-Propylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
n-Butylbenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	10-10-11	10-10-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	10-10-11	10-10-11	
Naphthalene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-10-11	10-10-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>107</i>	<i>55-121</i>				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1010S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0597</b>	<b>0.0611</b>	0.0500	0.0500	119	122	70-130	2	19	
Benzene	<b>0.0517</b>	<b>0.0532</b>	0.0500	0.0500	103	106	70-125	3	15	
Trichloroethene	<b>0.0528</b>	<b>0.0521</b>	0.0500	0.0500	106	104	70-122	1	14	
Toluene	<b>0.0518</b>	<b>0.0508</b>	0.0500	0.0500	104	102	73-120	2	16	
Chlorobenzene	<b>0.0525</b>	<b>0.0505</b>	0.0500	0.0500	105	101	74-109	4	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>108</i>	<i>112</i>	<i>63-127</i>			
<i>Toluene-d8</i>					<i>106</i>	<i>109</i>	<i>65-129</i>			
<i>Benzene, 1-bromo-4-fluoro-</i>					<i>106</i>	<i>108</i>	<i>55-121</i>			

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date	Date	Flags
				Prepared	Analyzed	
Lab ID:	10-057-02					
<b>Client ID:</b>	<b>SW-MW3-11:10</b>					
Arsenic	<b>ND</b>	12	6010B	10-11-11	10-12-11	
Cadmium	<b>ND</b>	0.60	6010B	10-11-11	10-12-11	
Chromium	<b>47</b>	0.60	6010B	10-11-11	10-12-11	
Lead	<b>ND</b>	6.0	6010B	10-11-11	10-12-11	
Mercury	<b>ND</b>	0.30	7471A	10-11-11	10-11-11	

Lab ID:	10-057-04					
<b>Client ID:</b>	<b>SW-MW3-11:18</b>					
Arsenic	<b>ND</b>	12	6010B	10-11-11	10-12-11	
Cadmium	<b>ND</b>	0.59	6010B	10-11-11	10-12-11	
Chromium	<b>36</b>	0.59	6010B	10-11-11	10-12-11	
Lead	<b>ND</b>	5.9	6010B	10-11-11	10-12-11	
Mercury	<b>ND</b>	0.30	7471A	10-11-11	10-11-11	

Date of Report: October 14, 2011  
Samples Submitted: October 7, 2011  
Laboratory Reference: 1110-057  
Project: 21-1-16604-003

**TOTAL METALS  
EPA 6010B/7471A  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-11-11  
Date Analyzed: 10-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1011S1&MB1011S2

Analyte	Method	Result	PQL
Arsenic	6010B	<b>ND</b>	10
Cadmium	6010B	<b>ND</b>	0.50
Chromium	6010B	<b>ND</b>	0.50
Lead	6010B	<b>ND</b>	5.0
Mercury	7471A	<b>ND</b>	0.25

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-11-11

Date Analyzed: 10-11-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 10-058-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	<b>ND</b>	<b>ND</b>	NA	10	
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	
Chromium	<b>27.5</b>	<b>27.7</b>	1	0.50	
Lead	<b>19.5</b>	<b>20.1</b>	3	5.0	
Mercury	<b>ND</b>	<b>ND</b>	NA	0.25	

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**TOTAL METALS  
 EPA 6010B/7471A  
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-11-11

Date Analyzed: 10-11-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 10-058-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	<b>97.8</b>	98	<b>99.1</b>	99	1	
Cadmium	50.0	<b>48.2</b>	96	<b>48.5</b>	97	1	
Chromium	100	<b>116</b>	89	<b>117</b>	90	1	
Lead	250	<b>246</b>	91	<b>248</b>	92	1	
Mercury	0.500	<b>0.468</b>	94	<b>0.474</b>	95	1	



Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**NWTPH-Gx**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SW-MW3-11:10</b>					
Laboratory ID:	10-057-02					
Gasoline	<b>ND</b>	6.6	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	106	68-124				
<b>Client ID:</b>	<b>SW-MW3-11:18</b>					
Laboratory ID:	10-057-04					
Gasoline	<b>ND</b>	6.3	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-124				

Date of Report: October 14, 2011  
 Samples Submitted: October 7, 2011  
 Laboratory Reference: 1110-057  
 Project: 21-1-16604-003

**NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1013S2					
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	10-13-11	10-13-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	68-124				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-053-02							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				100	98	68-124		

Date of Report: October 14, 2011  
Samples Submitted: October 7, 2011  
Laboratory Reference: 1110-057  
Project: 21-1-16604-003

**% MOISTURE**

Date Analyzed: 10-10&11-11

Client ID	Lab ID	% Moisture
SW-MW3-11:5	10-057-01	9
SW-MW3-11:10	10-057-02	16
SW-MW3-11:18	10-057-04	15
SW-MW3-11:25	10-057-06	13
SW-MW3-11:30	10-057-07	13
SW-MW3-11:35	10-057-08	13



#### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference

# Chain of Custody

Turnaround Request (in working days)	
(Check One)	
<input type="checkbox"/> Same Day	<input type="checkbox"/> 1 Day
<input type="checkbox"/> 2 Day	<input type="checkbox"/> 3 Day
<input checked="" type="checkbox"/> Standard (7 working days) (TPH analysis 5 working days)	
<input type="checkbox"/> _____ (other)	

Laboratory Number: **10-057**

Company: **STW**

Project Number: **21-1-16604-003**

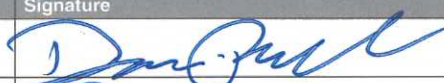



Project Name: **ST-KEY BANK**

Project Manager: **DAWN WULF**

Sampled by: **DSR**

Requested Analysis																
NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	MCTAS METALS	TPH-GX	HOLD	% Moisture
				X												X
		XX											XX			X
				X											X	X
		XX											XX			X
				X											X	X
				X											X	X
				X											X	X
				X											X	X

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.
1	SW-MW3-11:5	10/7/11	0858	soil	4
2	SW-MW3-11:10	↓	0905	↓	6
3	SW-MW3-11:15		0915		4
4	SW-MW3-11:18		0918		6
5	SW-MW3-11:20		0922		4
6	SW-MW3-11:25		0931		
7	SW-MW3-11:30		0945		
8	SW-MW3-11:35		1005		

	Signature	Company	Date	Time	Comments/Special Instructions:
Relinquished by		STW	10/7/11	1345	
Received by		Speedy	10/7/11	14:00	
Relinquished by			11	15:10	
Received by		DSR	10/7/11	1510	
Relinquished by					
Received by					
Reviewed by/Date		Reviewed by/Date	Chromatograms with final report <input type="checkbox"/>		



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 21, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-004  
Laboratory Reference No. 1110-106

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on October 14, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DJB', with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: October 21, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-106  
Project: 21-1-16604-004

### **Case Narrative**

Samples were collected on October 13, 2011 and received by the laboratory on October 14, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx Analysis

The gasoline result for sample MW-3 is attributed to a single peak; refer to EPA 8260B results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

### NWTPH-Gx

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3</b>					
Laboratory ID:	10-106-01					
Gasoline	<b>160</b>	100	NWTPH-Gx	10-18-11	10-18-11	Z
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	73-121				
<b>Client ID:</b>	<b>MW-2</b>					
Laboratory ID:	10-106-02					
Gasoline	<b>ND</b>	400	NWTPH-Gx	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	73-121				
<b>Client ID:</b>	<b>MW-1</b>					
Laboratory ID:	10-106-03					
Gasoline	<b>1100</b>	100	NWTPH-Gx	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	73-121				



Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**NWTPH-Gx  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1018W2					
Gasoline	<b>ND</b>	100	NWTPH-Gx	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	73-121				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-091-02							
	ORIG	DUP						
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				91	87	73-121		

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**NWTPH-Dx**  
 (with acid/silica gel clean-up)

Matrix: Water  
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2</b>					
Laboratory ID:	10-106-02					
Diesel Range Organics	<b>ND</b>	0.26	NWTPH-Dx	10-17-11	10-17-11	
Lube Oil Range Organics	<b>ND</b>	0.42	NWTPH-Dx	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				
<b>Client ID:</b>	<b>MW-1</b>					
Laboratory ID:	10-106-03					
Diesel Range Organics	<b>ND</b>	0.29	NWTPH-Dx	10-17-11	10-17-11	
Lube Oil Range Organics	<b>ND</b>	0.46	NWTPH-Dx	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**NWTPH-Dx  
 QUALITY CONTROL  
 (with acid/silica gel clean-up)**

Matrix: Water  
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1017W1					
Diesel Range Organics	<b>ND</b>	0.25	NWTPH-Dx	10-17-11	10-17-11	
Lube Oil Range Organics	<b>ND</b>	0.40	NWTPH-Dx	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>						
Laboratory ID:	10-108-01					
	ORIG	DUP				
Diesel Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
Lube Oil Range Organics	<b>ND</b>	<b>ND</b>		NA	NA	
<i>Surrogate:</i>						
<i>o-Terphenyl</i>			93 92	50-150		

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3</b>					
Laboratory ID:	10-106-01					
CFC-12	ND	1.0	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	5.0	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	1.0	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	5.0	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Acetone	ND	25	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	5.0	EPA 8260	10-18-11	10-18-11	
Carbon Disulfide	ND	1.0	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	5.0	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Methyl t-Butyl Ether	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Vinyl Acetate	ND	10	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	1.0	EPA 8260	10-18-11	10-18-11	
2-Butanone	ND	25	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Benzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trichloroethene	1.8	1.0	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	5.0	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Methyl Isobutyl Ketone	ND	10	EPA 8260	10-18-11	10-18-11	
Toluene	ND	5.0	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	1.0	EPA 8260	10-18-11	10-18-11	

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**VOLATILES by EPA 8260B**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3</b>					
Laboratory ID:	10-106-01					
1,1,2-Trichloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	130	1.0	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
2-Hexanone	ND	10	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	1.0	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Ethylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
m,p-Xylene	ND	2.0	EPA 8260	10-18-11	10-18-11	
o-Xylene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Styrene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	5.0	EPA 8260	10-18-11	10-18-11	
Isopropylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
n-Propylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	1.0	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,3,5-Trimethylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
tert-Butylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,4-Trimethylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
sec-Butylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
p-Isopropyltoluene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
n-Butylbenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Naphthalene	ND	5.0	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>83</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>84</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>85</i>	<i>65-120</i>				

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**VOLATILES by EPA 8260B**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2</b>					
Laboratory ID:	10-106-02					
CFC-12	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Acetone	ND	5.0	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	1.0	EPA 8260	10-18-11	10-18-11	
Carbon Disulfide	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methyl t-Butyl Ether	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Vinyl Acetate	ND	2.0	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Butanone	ND	5.0	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloroform	0.37	0.20	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Benzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	1.0	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260	10-18-11	10-18-11	
Toluene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2</b>					
Laboratory ID:	10-106-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Hexanone	ND	2.0	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Ethylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
m,p-Xylene	ND	0.40	EPA 8260	10-18-11	10-18-11	
o-Xylene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Styrene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	1.0	EPA 8260	10-18-11	10-18-11	
Isopropylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
n-Propylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
tert-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
sec-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
p-Isopropyltoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
n-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Naphthalene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>88</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>86</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>84</i>	<i>65-120</i>				

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**VOLATILES by EPA 8260B**  
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Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-1</b>					
Laboratory ID:	10-106-03					
CFC-12	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Acetone	ND	5.0	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	1.0	EPA 8260	10-18-11	10-18-11	
Carbon Disulfide	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methyl t-Butyl Ether	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Vinyl Acetate	ND	2.0	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Butanone	ND	5.0	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloroform	0.22	0.20	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Benzene	0.63	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	1.0	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260	10-18-11	10-18-11	
Toluene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	



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**VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-1</b>					
Laboratory ID:	10-106-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Hexanone	ND	2.0	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Ethylbenzene	17	0.20	EPA 8260	10-18-11	10-18-11	
m,p-Xylene	11	0.40	EPA 8260	10-18-11	10-18-11	
o-Xylene	1.1	0.20	EPA 8260	10-18-11	10-18-11	
Styrene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	1.0	EPA 8260	10-18-11	10-18-11	
Isopropylbenzene	8.5	0.20	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
n-Propylbenzene	3.7	0.20	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3,5-Trimethylbenzene	22	0.20	EPA 8260	10-18-11	10-18-11	
tert-Butylbenzene	1.0	0.20	EPA 8260	10-18-11	10-18-11	
1,2,4-Trimethylbenzene	15	0.20	EPA 8260	10-18-11	10-18-11	
sec-Butylbenzene	2.9	0.20	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
p-Isopropyltoluene	2.3	0.20	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
n-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Naphthalene	2.2	1.0	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>87</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>85</i>	<i>65-120</i>				

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1018W1					
CFC-12	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	1.0	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Acetone	ND	5.0	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	1.0	EPA 8260	10-18-11	10-18-11	
Carbon Disulfide	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methyl t-Butyl Ether	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Vinyl Acetate	ND	2.0	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Butanone	ND	5.0	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Benzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	1.0	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260	10-18-11	10-18-11	
Toluene	ND	1.0	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.20	EPA 8260	10-18-11	10-18-11	

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 Laboratory Reference: 1110-106  
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**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1018W1				
1,1,2-Trichloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Hexanone	ND	2.0	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.20	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
Ethylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
m,p-Xylene	ND	0.40	EPA 8260	10-18-11	10-18-11	
o-Xylene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Styrene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	1.0	EPA 8260	10-18-11	10-18-11	
Isopropylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	10-18-11	10-18-11	
n-Propylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
tert-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
sec-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
p-Isopropyltoluene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
n-Butylbenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	10-18-11	10-18-11	
Naphthalene	ND	1.0	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>89</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>91</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>90</i>	<i>65-120</i>				

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1018W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.6	11.4	10.0	10.0	116	114	70-130	2	11	
Benzene	10.3	10.3	10.0	10.0	103	103	75-123	0	8	
Trichloroethene	10.1	9.75	10.0	10.0	101	98	80-113	4	9	
Toluene	10.4	10.1	10.0	10.0	104	101	80-113	3	8	
Chlorobenzene	10.5	10.1	10.0	10.0	105	101	80-111	4	8	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					81	90	68-120			
<i>Toluene-d8</i>					86	90	73-120			
<i>Benzene, 1-bromo-4-fluoro-</i>					83	89	65-120			

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**TOTAL METALS  
 EPA 200.8/7470A**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	10-106-02					
<b>Client ID:</b>	<b>MW-2</b>					
Arsenic	<b>4.6</b>	3.3	200.8	10-20-11	10-20-11	
Cadmium	<b>ND</b>	4.4	200.8	10-20-11	10-20-11	
Chromium	<b>32</b>	11	200.8	10-20-11	10-20-11	
Lead	<b>5.2</b>	1.1	200.8	10-20-11	10-20-11	
Mercury	<b>ND</b>	0.50	7470A	10-19-11	10-19-11	

Lab ID:	10-106-03					
<b>Client ID:</b>	<b>MW-1</b>					
Arsenic	<b>9.9</b>	3.3	200.8	10-20-11	10-20-11	
Cadmium	<b>ND</b>	4.4	200.8	10-20-11	10-20-11	
Chromium	<b>78</b>	11	200.8	10-20-11	10-20-11	
Lead	<b>10</b>	1.1	200.8	10-20-11	10-20-11	
Mercury	<b>ND</b>	0.50	7470A	10-19-11	10-19-11	

Date of Report: October 21, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-106  
Project: 21-1-16604-004

**TOTAL METALS  
EPA 200.8/7470A  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-19&20-11

Date Analyzed: 10-19&20-11

Matrix: Water

Units: ug/L (ppb)

Lab ID: MB1019W2&MB1020W2

Analyte	Method	Result	PQL
Arsenic	200.8	<b>ND</b>	3.3
Cadmium	200.8	<b>ND</b>	4.4
Chromium	200.8	<b>ND</b>	11
Lead	200.8	<b>ND</b>	1.1
Mercury	7470A	<b>ND</b>	0.50

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**TOTAL METALS  
 EPA 200.8/7470A  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-19&20-11

Date Analyzed: 10-19&20-11

Matrix: Water

Units: ug/L (ppb)

Lab ID: 10-105-07

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	<b>ND</b>	<b>ND</b>	NA	3.3	
Cadmium	<b>ND</b>	<b>ND</b>	NA	4.4	
Chromium	<b>16.6</b>	<b>14.9</b>	11	11	
Lead	<b>1.94</b>	<b>1.95</b>	0	1.1	
Mercury	<b>ND</b>	<b>ND</b>	NA	0.50	

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**TOTAL METALS  
 EPA 200.8/7470A  
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-19&20-11

Date Analyzed: 10-19&20-11

Matrix: Water

Units: ug/L (ppb)

Lab ID: 10-105-07

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	<b>108</b>	97	<b>107</b>	97	0	
Cadmium	111	<b>105</b>	95	<b>107</b>	96	2	
Chromium	111	<b>117</b>	90	<b>121</b>	94	4	
Lead	111	<b>108</b>	95	<b>111</b>	98	3	
Mercury	12.5	<b>12.0</b>	96	<b>11.5</b>	92	4	



Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**DISSOLVED METALS**  
**EPA 200.8/7470A**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	10-106-02					
<b>Client ID:</b>	<b>MW-2</b>					
Arsenic	<b>ND</b>	3.0	200.8		10-18-11	
Cadmium	<b>ND</b>	4.0	200.8		10-18-11	
Chromium	<b>ND</b>	10	200.8		10-18-11	
Lead	<b>ND</b>	1.0	200.8		10-18-11	
Mercury	<b>ND</b>	0.50	7470A		10-19-11	

Lab ID:	10-106-03					
<b>Client ID:</b>	<b>MW-1</b>					
Arsenic	<b>ND</b>	3.0	200.8		10-18-11	
Cadmium	<b>ND</b>	4.0	200.8		10-18-11	
Chromium	<b>ND</b>	10	200.8		10-18-11	
Lead	<b>ND</b>	1.0	200.8		10-18-11	
Mercury	<b>ND</b>	0.50	7470A		10-19-11	

Date of Report: October 21, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-106  
Project: 21-1-16604-004

**DISSOLVED METALS  
EPA 200.8/7470A  
METHOD BLANK QUALITY CONTROL**

Date Analyzed: 10-18&19-11  
Matrix: Water  
Units: ug/L (ppb)  
Lab ID: MB1018D1&MB1019D1

Analyte	Method	Result	PQL
Arsenic	200.8	<b>ND</b>	3.0
Cadmium	200.8	<b>ND</b>	4.0
Chromium	200.8	<b>ND</b>	10
Lead	200.8	<b>ND</b>	1.0
Mercury	7470A	<b>ND</b>	0.50

Date of Report: October 21, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-106  
Project: 21-1-16604-004

**DISSOLVED METALS  
EPA 200.8/7470A  
DUPLICATE QUALITY CONTROL**

Date Analyzed: 10-18&19-11

Matrix: Water  
Units: ug/L (ppb)

Lab ID: 10-105-07

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.0	
Cadmium	ND	ND	NA	4.0	
Chromium	ND	ND	NA	10	
Lead	ND	ND	NA	1.0	
Mercury	ND	ND	NA	0.50	

Date of Report: October 21, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-106  
 Project: 21-1-16604-004

**DISSOLVED METALS  
 EPA 200.8/7470A  
 MS/MSD QUALITY CONTROL**

Date Analyzed: 10-18&19-11

Matrix: Water  
 Units: ug/L (ppb)

Lab ID: 10-105-07

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	<b>199</b>	99	<b>198</b>	99	0	
Cadmium	200	<b>197</b>	98	<b>195</b>	98	1	
Chromium	200	<b>189</b>	94	<b>189</b>	95	0	
Lead	200	<b>196</b>	98	<b>195</b>	98	0	
Mercury	12.5	<b>12.0</b>	96	<b>11.9</b>	95	1	



#### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - Y - Sample extract treated with an acid/silica gel cleanup procedure.
  - Z - The gasoline response is attributed to a single peak; refer to EPA 8260B results.
- ND - Not Detected at PQL  
PQL - Practical Quantitation Limit  
RPD - Relative Percent Difference

# Chain of Custody

**Turnaround Request  
(in working days)**

(Check One)

- Same Day       1 Day  
 2 Day           3 Day  
 Standard (7 working days)  
 (TPH analysis 5 working days)  
 \_\_\_\_\_ (other)

**Laboratory Number:**
**10-106**
**Requested Analysis**

Company: Shannon & Wilson Inc.  
 Project Number: 21-16604-004  
 Project Name: Former Key Bank  
 Project Manager: Dawn Wolf  
 Sampled by: EVP 206.695.6704

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX <u>OK 10/17</u>	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total PCBs (Methods 8082 & 8151A)	TEPH Metals <u>MTCA5</u>	HEM by 1664 <u>DISSOLVED MTCA5</u>	% Moisture
1	MW-3	10/13/11	1005	GW	1	X	X	X									X		
2	MW-2	10/13/11	1205	GW	9	X	X	X									X		
3	MW-1	10/13/11	1310	GW	9	X	X	X									X		

	Signature	Company	Date	Time	Comments/Special Instructions:
Relinquished by		<u>S&amp;W</u>	<u>10/14/11</u>	<u>0800</u>	<u>Please call with questions</u>
Received by		<u>Speedy</u>	<u>10-14-11</u>	<u>1015</u>	
Relinquished by		<u>Speedy</u>	<u>10-14-11</u>	<u>1015</u>	
Received by		<u>OSB</u>	<u>10/14/11</u>	<u>1015</u>	
Relinquished by					
Received by					
Reviewed by/Date		Reviewed by/Date			Chromatograms with final report <input type="checkbox"/>



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 19, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1110-112

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on October 14, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB' followed by a flourish.

David Baumeister  
Project Manager

Enclosures

Date of Report: October 19, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-112  
Project: 21-1-16604-003

### **Case Narrative**

Samples were collected on October 14, 2011 and received by the laboratory on October 14, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-13:4.5</b>					
Laboratory ID:	10-112-01					
CFC-12	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-13:4.5</b>					
Laboratory ID:	10-112-01					
1,1,2-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.029	0.0012	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>107</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-13:10.0</b>					
Laboratory ID:	10-112-02					
CFC-12	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trichloroethene	0.0023	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-13:10.0</b>					
Laboratory ID:	10-112-02					
1,1,2-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.22	0.14	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>104</i>	<i>55-121</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-14:5.5</b>					
Laboratory ID:	10-112-03					
CFC-12	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-14:5.5</b>					
Laboratory ID:	10-112-03					
1,1,2-Trichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.021	0.0012	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>103</i>	<i>55-121</i>				

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-14:10.5</b>					
Laboratory ID:	10-112-04					
CFC-12	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0030	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0030	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0030	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0030	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Trichloroethene	0.0016	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0030	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-14:10.5</b>					
Laboratory ID:	10-112-04					
1,1,2-Trichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.75	0.12	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0030	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0030	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>104</i>	<i>55-121</i>				



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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-15:5.0</b>					
Laboratory ID:	10-112-05					
CFC-12	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0031	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0031	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0031	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0031	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0031	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00061	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-15:5.0</b>					
Laboratory ID:	10-112-05					
1,1,2-Trichloroethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.13	0.0012	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00061	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0031	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0031	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00061	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>106</i>	<i>55-121</i>				

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-15:12.0</b>					
Laboratory ID:	10-112-06					
CFC-12	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	0.00099	0.00058	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	0.0013	0.00058	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	0.0010	0.00058	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trichloroethene	0.075	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-15:12.0</b>					
Laboratory ID:	10-112-06					
1,1,2-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	8.4	0.66	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>104</i>	<i>55-121</i>				

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-16:8.0</b>					
Laboratory ID:	10-112-07					
CFC-12	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0023	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Acetone	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Carbon Disulfide	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Methyl t-Butyl Ether	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Vinyl Acetate	ND	0.0023	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
2-Butanone	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Benzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Trichloroethene	0.0020	0.00046	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Methyl Isobutyl Ketone	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Toluene	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00046	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-16:8.0</b>					
Laboratory ID:	10-112-07					
1,1,2-Trichloroethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	98	1.2	EPA 8260	10-18-11	10-19-11	
1,3-Dichloropropane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
2-Hexanone	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Ethylbenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
m,p-Xylene	ND	0.00092	EPA 8260	10-17-11	10-17-11	
o-Xylene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Styrene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Isopropylbenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00046	EPA 8260	10-17-11	10-17-11	
n-Propylbenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,3,5-Trimethylbenzene	0.0046	0.00046	EPA 8260	10-17-11	10-17-11	
tert-Butylbenzene	0.0020	0.00046	EPA 8260	10-17-11	10-17-11	
1,2,4-Trimethylbenzene	0.0013	0.00046	EPA 8260	10-17-11	10-17-11	
sec-Butylbenzene	0.0021	0.00046	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
p-Isopropyltoluene	0.014	0.00046	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
n-Butylbenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0023	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0023	EPA 8260	10-17-11	10-17-11	
Naphthalene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00046	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>100</i>	<i>55-121</i>				

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-16:11.5</b>					
Laboratory ID:	10-112-08					
CFC-12	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0048	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0048	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0048	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0048	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Trichloroethene	0.040	0.00097	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0048	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00097	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-16:11.5</b>					
Laboratory ID:	10-112-08					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	4.5	0.28	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0048	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>101</i>	<i>55-121</i>				



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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-17-6.0</b>					
Laboratory ID:	10-112-09					
CFC-12	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0033	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0033	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0033	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0033	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0033	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00066	EPA 8260	10-17-11	10-17-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-17-6.0</b>					
Laboratory ID:	10-112-09					
1,1,2-Trichloroethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.032	0.0013	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00066	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0033	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0033	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00066	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>106</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
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 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-17-14.0</b>					
Laboratory ID:	10-112-10					
CFC-12	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0027	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0027	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0027	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0027	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Trichloroethene	0.0017	0.00054	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0027	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00054	EPA 8260	10-17-11	10-17-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-17-14.0</b>					
Laboratory ID:	10-112-10					
1,1,2-Trichloroethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	1.1	0.079	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00054	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0027	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0027	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00054	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>103</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-18:11.0</b>					
Laboratory ID:	10-112-11					
CFC-12	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00059	EPA 8260	10-17-11	10-17-11	

Date of Report: October 19, 2011  
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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-18:11.0</b>					
Laboratory ID:	10-112-11					
1,1,2-Trichloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.019	0.0012	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00059	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00059	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>108</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
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 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-19:11.0</b>					
Laboratory ID:	10-112-12					
CFC-12	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-17-11	10-17-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-19:11.0</b>					
Laboratory ID:	10-112-12					
1,1,2-Trichloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	0.064	0.0012	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.00058	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.00058	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>103</i>	<i>55-121</i>				



Date of Report: October 19, 2011  
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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-20:4.0</b>					
Laboratory ID:	10-112-13					
CFC-12	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0024	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0024	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0024	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0024	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0024	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.00048	EPA 8260	10-18-11	10-18-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-20:4.0</b>					
Laboratory ID:	10-112-13					
1,1,2-Trichloroethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	0.0092	0.00096	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.00048	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0024	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0024	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.00048	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>98</i>	<i>55-121</i>				

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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-20:9.0</b>					
Laboratory ID:	10-112-14					
CFC-12	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0031	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0031	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0031	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0031	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0031	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.00063	EPA 8260	10-18-11	10-18-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-20:9.0</b>					
Laboratory ID:	10-112-14					
1,1,2-Trichloroethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	0.036	0.0013	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.00063	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0031	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0031	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.00063	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>104</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-21:6.0</b>					
Laboratory ID:	10-112-15					
CFC-12	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0027	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0027	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0027	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0027	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0027	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.00053	EPA 8260	10-18-11	10-18-11	

Date of Report: October 19, 2011  
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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-21:6.0</b>					
Laboratory ID:	10-112-15					
1,1,2-Trichloroethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	0.18	0.11	EPA 8260	10-19-11	10-19-11	
1,3-Dichloropropane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.00053	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0027	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0027	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.00053	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>105</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
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 Laboratory Reference: 1110-112  
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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-21:12.0</b>					
Laboratory ID:	10-112-16					
CFC-12	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0029	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0029	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0029	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0029	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Trichloroethene	0.0011	0.00058	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0029	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.00058	EPA 8260	10-18-11	10-18-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-21:12.0</b>					
Laboratory ID:	10-112-16					
1,1,2-Trichloroethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	1.0	0.26	EPA 8260	10-19-11	10-19-11	
1,3-Dichloropropane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.00058	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0029	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0029	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.00058	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>103</i>	<i>55-121</i>				



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**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-22:5.5</b>					
Laboratory ID:	10-112-17					
CFC-12	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0032	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0032	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0032	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0032	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0032	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.00065	EPA 8260	10-18-11	10-18-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-22:5.5</b>					
Laboratory ID:	10-112-17					
1,1,2-Trichloroethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	0.0036	0.0013	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.00065	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0032	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0032	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.00065	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>99</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
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 Project: 21-1-16604-003

**HALOGENATED VOLATILES by EPA 8260B**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-22:13.0</b>					
Laboratory ID:	10-112-18					
CFC-12	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0028	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0028	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0028	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0028	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Trichloroethene	0.0019	0.00057	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0028	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.00057	EPA 8260	10-18-11	10-18-11	

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**HALOGENATED VOLATILES by EPA 8260B**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>GP-22:13.0</b>					
Laboratory ID:	10-112-18					
1,1,2-Trichloroethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	0.0023	0.0011	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.00057	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0028	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0028	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.00057	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>97</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1017S1					
CFC-12	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Chloromethane	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Bromomethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Chloroethane	ND	0.0050	EPA 8260	10-17-11	10-17-11	
CFC-11	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Acetone	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Methyl Iodide	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Carbon Disulfide	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Methylene Chloride	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Vinyl Acetate	ND	0.0050	EPA 8260	10-17-11	10-17-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
2-Butanone	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Chloroform	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Benzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Trichloroethene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Dibromomethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Toluene	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-17-11	10-17-11	

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**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1017S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Tetrachloroethene	ND	0.0020	EPA 8260	10-17-11	10-17-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
2-Hexanone	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Ethylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
m,p-Xylene	ND	0.0020	EPA 8260	10-17-11	10-17-11	
o-Xylene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Styrene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Bromoform	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Isopropylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Bromobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-17-11	10-17-11	
n-Propylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
n-Butylbenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	10-17-11	10-17-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	10-17-11	10-17-11	
Naphthalene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-17-11	10-17-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>113</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>109</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1018S1					
CFC-12	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Chloromethane	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Bromomethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Chloroethane	ND	0.0050	EPA 8260	10-18-11	10-18-11	
CFC-11	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Acetone	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Methyl Iodide	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Carbon Disulfide	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Methylene Chloride	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Vinyl Acetate	ND	0.0050	EPA 8260	10-18-11	10-18-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
2-Butanone	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Chloroform	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Benzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Trichloroethene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Dibromomethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Toluene	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-18-11	10-18-11	

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**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1018S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Tetrachloroethene	ND	0.0020	EPA 8260	10-18-11	10-18-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
2-Hexanone	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Ethylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
m,p-Xylene	ND	0.0020	EPA 8260	10-18-11	10-18-11	
o-Xylene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Styrene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Bromoform	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Isopropylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Bromobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-18-11	10-18-11	
n-Propylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
n-Butylbenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	10-18-11	10-18-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	10-18-11	10-18-11	
Naphthalene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-18-11	10-18-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>105</i>	<i>55-121</i>				



Date of Report: October 19, 2011  
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 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1019S1					
CFC-12	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Chloromethane	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Vinyl Chloride	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Bromomethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Chloroethane	ND	0.0050	EPA 8260	10-19-11	10-19-11	
CFC-11	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,1-Dichloroethene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Acetone	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Methyl Iodide	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Carbon Disulfide	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Methylene Chloride	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Trans-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,1-Dichloroethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Vinyl Acetate	ND	0.0050	EPA 8260	10-19-11	10-19-11	
2,2-Dichloropropane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Cis-1,2-Dichloroethene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
2-Butanone	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Bromochloromethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Chloroform	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Carbon Tetrachloride	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,1-Dichloropropene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Benzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2-Dichloroethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Trichloroethene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2-Dichloropropane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Dibromomethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Dichlorobromomethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
2-Chloroethylvinylether	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Cis-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Toluene	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Trans-1,3-Dichloropropene	ND	0.0010	EPA 8260	10-19-11	10-19-11	

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B**  
**METHOD BLANK QUALITY CONTROL**  
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1019S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Tetrachloroethene	ND	0.0020	EPA 8260	10-19-11	10-19-11	
1,3-Dichloropropane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
2-Hexanone	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Dibromochloromethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Ethylene dibromide	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Chlorobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Ethylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
m,p-Xylene	ND	0.0020	EPA 8260	10-19-11	10-19-11	
o-Xylene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Styrene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Bromoform	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Isopropylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Bromobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	10-19-11	10-19-11	
n-Propylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
2-Chlorotoluene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
4-Chlorotoluene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
tert-Butylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
sec-Butylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
p-Isopropyltoluene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
n-Butylbenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	10-19-11	10-19-11	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
Hexachlorobutadiene	ND	0.0050	EPA 8260	10-19-11	10-19-11	
Naphthalene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	10-19-11	10-19-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>65-129</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>108</i>	<i>55-121</i>				

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1017S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0640</b>	<b>0.0641</b>	0.0500	0.0500	128	128	70-130	0	19	
Benzene	<b>0.0572</b>	<b>0.0568</b>	0.0500	0.0500	114	114	70-125	1	15	
Trichloroethene	<b>0.0555</b>	<b>0.0558</b>	0.0500	0.0500	111	112	70-122	1	14	
Toluene	<b>0.0541</b>	<b>0.0541</b>	0.0500	0.0500	108	108	73-120	0	16	
Chlorobenzene	<b>0.0516</b>	<b>0.0523</b>	0.0500	0.0500	103	105	74-109	1	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					112	109	63-127			
<i>Toluene-d8</i>					107	107	65-129			
<i>Benzene, 1-bromo-4-fluoro-</i>					108	109	55-121			

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1018S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0517</b>	<b>0.0510</b>	0.0500	0.0500	103	102	70-130	1	19	
Benzene	<b>0.0470</b>	<b>0.0464</b>	0.0500	0.0500	94	93	70-125	1	15	
Trichloroethene	<b>0.0498</b>	<b>0.0484</b>	0.0500	0.0500	100	97	70-122	3	14	
Toluene	<b>0.0478</b>	<b>0.0471</b>	0.0500	0.0500	96	94	73-120	1	16	
Chlorobenzene	<b>0.0495</b>	<b>0.0487</b>	0.0500	0.0500	99	97	74-109	2	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					103	102	63-127			
<i>Toluene-d8</i>					104	103	65-129			
<i>Benzene, 1-bromo-4-fluoro-</i>					104	103	55-121			

Date of Report: October 19, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112  
 Project: 21-1-16604-003

**VOLATILES by EPA 8260B  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1019S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0523</b>	<b>0.0512</b>	0.0500	0.0500	105	102	70-130	2	19	
Benzene	<b>0.0475</b>	<b>0.0465</b>	0.0500	0.0500	95	93	70-125	2	15	
Trichloroethene	<b>0.0491</b>	<b>0.0477</b>	0.0500	0.0500	98	95	70-122	3	14	
Toluene	<b>0.0478</b>	<b>0.0462</b>	0.0500	0.0500	96	92	73-120	3	16	
Chlorobenzene	<b>0.0485</b>	<b>0.0472</b>	0.0500	0.0500	97	94	74-109	3	12	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					106	104	63-127			
<i>Toluene-d8</i>					105	102	65-129			
<i>Benzene, 1-bromo-4-fluoro-</i>					106	103	55-121			

Date of Report: October 19, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-112  
Project: 21-1-16604-003

### % MOISTURE

Date Analyzed: 10-17-11

Client ID	Lab ID	% Moisture
GP-13:4.5	10-112-01	9
GP-13:10.0	10-112-02	16
GP-14:5.5	10-112-03	9
GP-14:10.5	10-112-04	12
GP-15:5.0	10-112-05	11
GP-15:12.0	10-112-06	16
GP-16:8.0	10-112-07	10
GP-16:11.5	10-112-08	17
GP-17-6.0	10-112-09	10
GP-17-14.0	10-112-10	13
GP-18:11.0	10-112-11	13
GP-19:11.0	10-112-12	12
GP-20:4.0	10-112-13	9
GP-20:9.0	10-112-14	12
GP-21:6.0	10-112-15	8
GP-21:12.0	10-112-16	12
GP-22:5.5	10-112-17	17
GP-22:13.0	10-112-18	14



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference

# Chain of Custody

 Laboratory Number: **10-112**

Company: Shannon & Wilson Inc.

Project Number: 21-1-16604-003

Project Name: Former Key Bank

Project Manager: Dawn Wils / Agnes Tizzo

Sampled by: EVP

Turnaround Request (in working days)

(Check One)

Same Day       1 Day

2 Day           3 Day

Standard (7 working days)  
(TPH analysis 5 working days)

\_\_\_\_\_ (other)

## Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	HEM by 1664	% Moisture	
1	<del>GP-1:4.5</del> GP-13:4.5	10/14/11	0912	Soil	5																
2	<del>GP-1:10.0</del> GP-13:10.0	10/14/11	0925	Soil	5																
3	<del>GP-2:5.5</del> GP-14:5.5	10/14/11	1000	Soil	5																
4	<del>GP-2:10.5</del> GP-14:10.5	10/14/11	1012	Soil	5																
5	<del>GP-3:5.0</del> GP-15:5.0	10/14/11	1035	Soil	5																
6	<del>GP-3:12.0</del> GP-15:12.0	10/14/11	1045	Soil	5																
7	<del>GP-4:8.0</del> GP-16:8.0	10/14/11	1100	Soil	5																
8	<del>GP-4:11.5</del> GP-16:11.5	10/14/11	1110	Soil	5																
9	<del>GP-5:6.0</del> GP-17:6.0	10/14/11	1135	Soil	5																
10	<del>GP-5:14.0</del> GP-17:14.0	10/14/11	1145	Soil	5																

FULL LIST  
 Halogenated Metals  
 DB

Signature	Company	Date	Time	Comments/Special Instructions:
<u>[Signature]</u>	<u>SDV</u>	<u>10/14/11</u>	<u>1530</u>	
<u>[Signature]</u>	<u>Speedy</u>	<u>10/14/11</u>	<u>1530</u>	
<u>[Signature]</u>	<u>ll</u>	<u>10/14/11</u>	<u>1615</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>10/14/11</u>	<u>1615</u>	
Reviewed by/Date	Reviewed by/Date	Chromatograms with final report <input type="checkbox"/>		



# Chain of Custody

Company: <b>Shannon &amp; Wilson</b> Project Number: <b>21-1-16604-003</b> Project Name: <b>Former Key Bank</b> Project Manager: <b>Dana Wolf / Agnes Tino</b> Sampled by: <b>EVP</b>	Turnaround Request (in working days) (Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Standard (7 working days) (TPH analysis 5 working days) <input type="checkbox"/> _____ (other)	Laboratory Number: <b>10-112</b> Requested Analysis
---	--	--

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	HEM by 1664 <sup>DB</sup> <b>Oil List</b>	% Moisture	
11	<del>GP-6:11.0</del> GP-18:11.0	10/14/11	1210	Soil	5																
12	<del>GP-7:11.0</del> GP-19:11.0	10/14/11	1315	Soil	5																
13	<del>GP-8:4.0</del> GP-20:4.0	10/14/11	1330	Soil	5																
14	<del>GP-8:9.0</del> GP-20:9.0	10/14/11	1345	Soil	5																
15	<del>GP-9:6.0</del> GP-21:6.0	10/14/11	1305	Soil	5																
16	<del>GP-9:12.0</del> GP-21:12.0	10/14/11	1425	Soil	5																
17	<del>GP-10:5.5</del> GP-22:5.0	10/14/11	1453	Soil	5																
18	<del>GP-10:13.0</del> GP-22:13.0	10/14/11	1510	Soil	5																

Signature	Company	Date	Time	Comments/Special Instructions:
	S&W	10/14/11	1530	
	Speedy	10/14/11	1530	
	"	10/14/11	1615	
	OBE	10/14/11	1615	
Reviewed by/Date	Reviewed by/Date	Chromatograms with final report <input type="checkbox"/>		



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

November 2, 2011

Dawn Wulf  
Shannon & Wilson, Inc.  
400 N 34th Street, Suite 100  
Seattle, WA 98103

Re: Analytical Data for Project 21-1-16604-003  
Laboratory Reference No. 1110-112B

Dear Dawn:

Enclosed are the analytical results and associated quality control data for samples submitted on October 14, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: November 2, 2011  
Samples Submitted: October 14, 2011  
Laboratory Reference: 1110-112B  
Project: 21-1-16604-003

### **Case Narrative**

Samples were collected on October 14, 2011 and received by the laboratory on October 14, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: November 2, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112B  
 Project: 21-1-16604-003

**TCLP TETRACHLOROETHYLENE  
 EPA 1311/8260B**

Matrix: TCLP Extract  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>GP-16:8.0</b>					
Laboratory ID:	10-112-07					
Tetrachloroethene	42	2.0	EPA 8260	10-25-11	11-1-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	78	68-120				
<i>Toluene-d8</i>	82	73-120				
<i>Benzene, 1-bromo-4-fluoro-</i>	79	65-120				

Date of Report: November 2, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112B  
 Project: 21-1-16604-003

**TCLP TETRACHLOROETHYLENE  
 EPA 1311/8260B  
 METHOD BLANK QUALITY CONTROL**

Matrix: TCLP Extract  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1025T2					
Tetrachloroethene	ND	2.0	EPA 8260	10-25-11	11-1-11	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>87</i>	<i>68-120</i>				
<i>Toluene-d8</i>	<i>87</i>	<i>73-120</i>				
<i>Benzene, 1-bromo-4-fluoro-</i>	<i>84</i>	<i>65-120</i>				

Date of Report: November 2, 2011  
 Samples Submitted: October 14, 2011  
 Laboratory Reference: 1110-112B  
 Project: 21-1-16604-003

**TCLP TETRACHLOROETHYLENE  
 EPA 1311/8260B  
 SB/SBD QUALITY CONTROL**

Matrix: TCLP Extract  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1101T1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.33	9.49	10.0	10.0	93	95	70-130	2	11	
Benzene	8.48	8.90	10.0	10.0	85	89	75-123	5	8	
Trichloroethene	9.13	9.19	10.0	10.0	91	92	80-113	1	9	
Toluene	8.86	9.32	10.0	10.0	89	93	80-113	5	8	
Chlorobenzene	9.37	9.59	10.0	10.0	94	96	80-111	2	8	
<i>Surrogate:</i>										
Dibromofluoromethane					75	77	68-120			
Toluene-d8					80	80	73-120			
Benzene, 1-bromo-4-fluoro-					76	79	65-120			



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



**OnSite Environmental Inc.**  
 Phone: (425) 883-3881 • Fax: (425) 885-4603

# Chain of Custody

Turnaround Request  
 (in working days)  
 (Check One)

- Same Day  1 Day  
 2 Day  3 Day

Standard (7 working days)  
 (TPH analysis 5 working days)

(other)

Laboratory Number:

Requested Analysis

10-112

Company: Skinner & Wilson Inc.  
 Project Number: 21-1-16604-003  
 Project Name: Former Key Bank  
 Project Manager: Dean Wils / Keyes Time  
 Sampled by: EVP

NWTPH-HCID
NWTPH-Gx/BTEX
NWTPH-Dx
Volatiles by 8260B
Halogenated Volatiles by 8260B
Semivolatiles by 8270D
PAHs by 8270D / SIM
PCBs by 8082
Pesticides by 8081A
Herbicides by 8151A
Total RCRA Metals (8)
TCLP Metals <u>Tetrachloroethylene</u>
HEM by 1664 <u>DB</u>
<u>DB</u> <u>Full List</u> <u>Halogenated VOCs</u> <u>DB</u> <u>Halogenated</u>
% Moisture

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Company	Date	Time	Comments/Special Instructions
1	<del>GP-14.5</del> GP-13:24.5	10/14/11	0912	Soil	5	S&W	10/14/11	1530	Chromatograms with final report <input type="checkbox"/> Added 10/20/11. DB (STA)
2	<del>GP-14.5</del> GP-13:10.0	10/14/11	0925	Soil	5	Speedy	10/14/11	1530	
3	<del>GP-15.5</del> GP-14:5.5	10/14/11	1000	Soil	5		10/14/11	1615	
4	<del>GP-14.5</del> GP-14:10.5	10/14/11	1012	Soil	5				
5	<del>GP-15.0</del> GP-15:5.0	10/14/11	1035	Soil	5				
6	<del>GP-15.0</del> GP-15:12.0	10/14/11	1045	Soil	5				
7	<del>GP-16.0</del> GP-16:8.0	10/14/11	1100	Soil	5				
8	<del>GP-16.0</del> GP-16:11.5	10/14/11	1110	Soil	5				
9	<del>GP-17.0</del> GP-17:6.0	10/14/11	1135	Soil	5				
10	<del>GP-17.0</del> GP-17:14.0	10/14/11	1145	Soil	5				

Received by: Van  
 Relinquished by: Van  
 Received by: [Signature]  
 Relinquished by: [Signature]  
 Received by: [Signature]  
 Relinquished by: [Signature]  
 Reviewed by/Date: \_\_\_\_\_

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy





OnSite Environmental Inc.

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# Chain of Custody

Company: **Shannon & Wilson**

Project Number: **21-1-16604-003**

Project Name: **Former Key Bank**

Project Manager: **Dawn Wulf / Angus Tino**

Sampled by: **EVP**

Turnaround Request (in working days)

(Check One)

Same Day  1 Day

2 Day  3 Day

Standard (7 working days)  
(TPH analysis 5 working days)

(other)

Laboratory Number:

Requested Analysis

**10-112**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	DB	Halogenated VOCs (8260)	Halogenated	
11	GP-6:11:0 GP-18:11:0	10/14/11	1210	soil	5																	
12	GP-7:11:0 GP-19:11:0	10/14/11	1315	soil	5																	
13	GP-8:11:0 GP-20:11:0	10/14/11	1330	soil	5																	
14	GP-8:11:0 GP-20:11:0	10/14/11	1345	soil	5																	
15	GP-9:12:0 GP-21:12:0	10/14/11	1405	soil	5																	
16	GP-9:12:0 GP-21:12:0	10/14/11	1425	soil	5																	
17	GP-10:13:0 GP-22:13:0	10/14/11	1453	soil	5																	
18	GP-10:13:0 GP-22:13:0	10/14/11	1510	soil	5																	

Received by	Signature	Company	Date	Time	Comments/Special Instructions:
Relinquished by	<i>[Signature]</i>	S4W	10/14/11	1530	
Received by	<i>[Signature]</i>	Specker	10/14/11	1530	
Relinquished by	<i>[Signature]</i>		10/14/11	1615	
Received by	<i>[Signature]</i>	OSE	10/14/11	1615	
Relinquished by					
Received by					
Reviewed by/Date					Chromatograms with final report <input type="checkbox"/>

**APPENDIX D**  
**DISPOSAL DOCUMENTATION**

Disposal Documentation will be submitted as an addendum.

**APPENDIX E**

**IMPORTANT INFORMATION ABOUT YOUR  
GEOTECHNICAL/ENVIRONMENTAL REPORT**



Date: January 9, 2012  
To: Mr. Mark Menard  
Sound Transit

## **IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT**

### **CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.**

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

### **THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.**

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

### **SUBSURFACE CONDITIONS CAN CHANGE.**

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

### **MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.**

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

#### **A REPORT'S CONCLUSIONS ARE PRELIMINARY.**

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

#### **THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.**

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

#### **BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.**

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

#### **READ RESPONSIBILITY CLAUSES CLOSELY.**

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the  
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland